

**WORK-ROLE FIT, MEANINGFULNESS AND
ENGAGEMENT OF INDUSTRIAL/ORGANISATIONAL
PSYCHOLOGISTS IN SOUTH AFRICA**

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REMARKS

The reader is reminded of the following:

- The referencing as well as the editorial style as prescribed by the *Publication Manual* (5th edition) of the American Psychological Association (APA) was followed in this dissertation. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Vanderbijlpark Campus) to use APA style in all scientific documents.
- The mini-dissertation is submitted in the form of one research article.

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SUMMARY

Topic: Work-role fit, meaningfulness and engagement of industrial/organisational psychologists in South Africa.

Key terms: Work-role fit, meaning of work, psychological meaningfulness, work engagement, industrial/organisational psychologists, South Africa

The work of industrial/organisational (I/O) psychologists presents an interesting context for studying meaning and engagement (as eudaimonic components of happiness). I/O psychologists spend more than 88% of their working day with people, and they are primary role models for happiness and change in the workplace. Information about the manifestation of their meaning and work engagement is therefore needed. The aim of this study was to determine how I/O psychologists experience the meaning of their work and to investigate the relationships between their experiences of work-role fit, meaning of work, psychological meaningfulness, and work engagement.

The research method consisted out of a literature review and empirical study. A survey design with a convenience sample ($n = 106$) was taken from a sample of registered I/O psychologists. A biographical questionnaire, the Work-role Fit Scale (WRFS), Work-life Questionnaire (WLQ), Psychological Meaningfulness Scale (PMS), Work Engagement Scale (WES) and a self-developed survey measuring the actual and desired time spent on six broad categories of work were administered. The statistical analysis was carried out by means of SPSS (2009).

Exploratory factor analyses showed one factor models for work-role fit, psychological meaningfulness and work engagement. A two factor model for the meaning of work (a job/calling and career orientation) was found. Cronbach alpha coefficients ranging from 0,80 to 0,93 were obtained. The results showed that a discrepancy exists between the actual time and desired time spent on the six broad categories of work (see Benjamin & Louw-Potgieter, 2008). Furthermore, the results showed that half the I/O psychologists view their work as callings. Whereas only 16% view their work as a *career* and 6,6% as a *job*.

Regression analyses indicated that work-role fit predicts psychological meaningfulness and work engagement. The job/calling orientation predicted both psychological meaningfulness and work engagement. Work-role fit predicted the job/calling orientation. Psychological meaningfulness did not mediate the relationship between work-role fit and work engagement. Work-role fit mediated the relationship between the meaning of work and psychological meaningfulness. Work-role fit partially mediated the relationship between a calling orientation and work engagement.

Recommendations were made pertaining to future research.

CHAPTER 1

INTRODUCTION

The mini-dissertation focuses on the work-role fit, meaningfulness and work engagement of registered industrial/organisational psychologists within South Africa.

Chapter 1 contains the problem statement as well as a literature review based on previous research done on the constructs. Chapter 1 is guided by the ecosystemic view of human nature which manifests in the humanistic-existential paradigm. The research objectives and the significance of the study are also presented. Finally, the research method is explained and the proposed division of chapters is given.

1.1 PROBLEM STATEMENT

Psychologists have long been concerned with the happiness of people and how it can be achieved (Guignon, 1999; LeBon, 2001; Seligman, 2002). According to Seligman (2002), this is an important goal and it entails more than just the absence of unhappiness. This refers to the experience of a sense of joy, satisfaction, and positive well-being, combined with a sense that one's life is good, meaningful, and worthwhile (Seligman, 2002; Seligman, 2008). Happiness results in various positive outcomes, including superior attention, longevity, recovery from illnesses, and protecting people against the onset of diseases (Seligman, 2008). Furthermore, it contributes to better business results, improved interpersonal relationships, and more marital satisfaction. Seligman (2002) points out that about 54% of people are moderately happy – yet not flourishing. These individuals lack enthusiasm and are not actively and productively engaged with the world (Ryan & Deci, 2001; Seligman, 2002; Seligman, 2008). Happiness draws from two philosophies, namely the hedonic and eudaimonic approaches (Ryan & Deci, 2001). The hedonic approach focuses on preferences and pleasures of the mind as well as the body (Nelson-Jones, 2004; Ryan & Deci, 2001). The eudaimonic approach calls upon people to live in accordance with their daimon, or true self. Eudaimonia occurs when an individual's life activities are most congruent with their values and are fully engaged (Ryan & Deci, 2001).

Flowing from the hedonic and eudaimonic approaches, Peterson, Nansook, and Seligman (2005) suggested three routes to happiness, namely pleasure, meaning and engagement. The first route to happiness is hedonic and entails the pursuit of pleasure (Ryan & Deci, 2001; Seligman). The second route to happiness is through pursuing gratification, which engages people fully in activities (Seligman, 2002). Engagement, according to Kahn (1990, p.694), refers to “harnessing of organisational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances”. Engaging in activities requires that people apply their signature strengths, such as creativity and perseverance (Peterson, & Seligman, 2004; Seligman, 2002). The third route to happiness is to use strengths to belong to and be in service of something larger than the self, which gives life meaning (May, Gilson, & Harter, 2004; Peterson et al., 2005; Seligman, 2002; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). Peterson et al. (2005, p. 36) studied the three orientations to happiness and found that: “These orientations are distinguishable, are not incompatible and thus able to be pursued simultaneously, and that each is associated with life satisfaction”. Engagement and meaning as routes to happiness seem more under deliberate control of individuals than pleasure (May et al., 2004; Seligman et al., 2004). Therefore, interventions which target engagement and meaning seem most fruitful, linked with pleasure flowing from them (Seligman, 2002).

Individuals spend more than a third of their lives at work or at work activities (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Wrzesniewski et al., 1997). Work is central to the existence of the individual (Harpaz, Honig, & Coetsier, 2002). Therefore, work is an important context to engage individuals in goal-directed activities, and to provide meaning (Cameron, Dutton, & Quinn, 2003; Wrzesniewski et al., 1997). Work-role fit (May et al., 2004); meaning of work (Wrzesniewski & Tosti, 2005); psychological meaningfulness (May et al., 2004); and work engagement have recently become important research topics (Schaufeli & Bakker, 2004).

The perceived fit between an individual’s self-concept and the role that he assumes in an organisation results in the experience of meaningfulness (May et al., 2004; Olivier & Rothmann, 2007). Psychological meaningfulness is experienced because the individual is able to express his¹ values and beliefs in his work (May et al., 2004; Olivier & Rothmann, 2007). People are not only goal-oriented, they are also self-expressive and creative, and

¹ For the purpose of this study “his” will refer to his and her

therefore they will seek out work roles that allow them to behave in ways that express their self-concepts (Shamir, 1991). Work roles and activities which are aligned with individuals' self-concepts, should be associated with more meaningful work experiences (May et al., 2004; Seligman, 2002). May et al. (2004) found in their study that work-role fit leads to psychological meaningfulness, which in turn leads to work engagement. Participating in activities that are congruent with an individual's values (Waterman, 1993) and/or strengths (Seligman, 2002) contribute to the experience of meaningfulness and engagement in work. An individual attaches various levels of meaning to his or her work and work activities as a result of the time associated with and the value derived from these activities. In South Africa, studies pertaining to meaningfulness in both its facets (a) the meaning of work (Carvalho, 2005); and (b) psychological meaningfulness (Olivier & Rothmann, 2007) have been limited.

Meaning of work is defined as the "degree of general importance that the subjective experience of working has in the life of an individual, at any given time" (Bellah et al., 1985, p. 81). According to Bellah et al. (1985), these subjective experiences could be classified into three meaning orientations, where the individual experiences his work either as a job, a career, or a calling. Individuals who view their work as a *job*, are only engaged in work activities for the material benefits they receive (Bellah et al., 1985; Wrzesniewski et al., 1997; Wrzesniewski & Tosti, 2005). Individuals who view their work as a *career*, are concerned with the progression of continuous advancement within the corporate structure through devoting considerable amounts of time and energy to work activities (Bellah et al., 1985; Wrzesniewski et al., 1997; Wrzesniewski & Tosti, 2005). Those who view work as a *calling*, engage in work activities as a result of the fulfilment they derive from work engagement (Wrzesniewski et al., 1997). The presence of a calling promotes the experience of meaningful work (Wrzesniewski et al., 1997).

Meaningfulness is an important psychological condition given that individuals have a primary motive to seek meaning in their lives (Steger et al., 2006), and consequently their work (Kahn, 1990). Applied to the work context, psychological meaningfulness is defined as "the value of a work goal or purpose, judged in relation to an individual's own ideals or standards" (May et al., 2004, p. 14). According to Spreitzer, Kizilos, and Nason (1997), work that is experienced as meaningful by employees should facilitate their personal growth and work motivation. Lack of psychological meaningfulness in one's work can lead to disengagement (May et al., 2004; Olivier & Rothmann, 2007).

Macey and Schneider (2008) distinguished between three broad conceptualisations of work engagement, namely state, trait, and behavioural engagement. State engagement, which is relevant for the purposes of this study, defines engagement as an extension of the self to a role (Kahn, 1990). Kahn (1990, p. 694) defined work engagement as the “harnessing of organisational members’ selves to their work role by which they employ and express themselves physically, cognitively and emotionally during role performance”.

The work of industrial/organisational (I/O) psychologists presents an interesting context for studying meaning and engagement for two reasons. First, I/O psychologists spend more than 88% of their working day with people (Benjamin & Louw-Potgieter, 2008). Bellah et al. (1985) suggested that the effect of meaning of work is clearly [more] visible in an occupation where the individuals are constantly interacting with various social systems within an organisation. Benjamin and Louw-Potgieter (2008) argue that the work activities I/O psychologists engage in can be classified in terms of six dimensions, namely psychological assessment, therapy and counselling, human resource management, human resource administration, training and development and interventions and consultations. However, it seems that many of the inputs of I/O psychologists are not of an I/O psychological nature (Barnard & Fourie, 2007). Barnard and Fourie (2007) found that the roles of I/O psychologists are severely restricted by their positions as traditional human resource practitioners. Therefore, the question arises how I/O psychologists experience the meaning of their work (in terms of a job, a career or a calling) and whether meaning of work is related to the activities they are currently involved in. It is also not clear whether their experiences of meaning of work will be related to experiences of psychological meaningfulness and work engagement.

Secondly, I/O psychologists are primary role models for happiness and change in the workplace (Cameron et al., 2003). Information about the manifestation of their work engagement and meaning (see Seligman et al., 2004) is therefore needed. The studies of Kahn (1990) and May et al. (2004) showed that work roles and activities which are aligned with individuals’ self-concepts should be associated with more psychological meaningful work experiences which can impact on their work engagement. No studies have been found regarding the work-role fit, psychological meaningfulness and engagement of I/O psychologists.

1.1.1 Literature Review

Work-role fit

Psychologists have long been interested in the relation between the individual and his role in the organisation (Kahn, 1990; Kreitner & Kinicki, 2007; Kristof, 1996). The extension of one's self-concept to the work role (work-role fit) induces psychological meaningfulness owing to the ability of the individual to articulate his beliefs and principles (Kahn, 1990; May et al., 2004; Olivier & Rothman, 2007). Individuals will seek out work-roles which allow them to own up to their authentic selves (May et al., 2004; Olivier & Rothmann, 2007) since individuals are unique (LeBon, 2001), creative and self-expressive, and not just goal-orientated (Shamir, 1991). Poor work-role fit is related to heightened levels of frustration, pessimism (Meyers, 2007) and a lack in psychological meaningfulness (Dik & Duffy, 2008). Individuals experiencing high levels of work-role fit perceive their jobs to be callings and are willing to go beyond occupational restraints to accomplish tasks (Dik & Duffy, 2008). Experiencing low levels of work-role fit will lead to job re-crafting (Dik & Steger, 2008; Wrzesniewski, 2003) whereby the individual re-shapes his work in order to derive more meaning (Wrzesniewski, 2003).

Meaning and work

Meaning is a core component in the experience of happiness (Peterson et al., 2005; Seligman, 2002). The concept of meaning is founded in Objective List theory (Nussbaum, 1992). Happiness according to this theory consists of a human life that achieves worthwhile pursuits such as career accomplishments, friendship, freedom from disease and pain, material comforts, love and knowledge. Two conceptualisations of meaning are used for the purposes of this study, namely meaning of work (Bellah et al., 1985; Wrzesniewski et al., 1997), and psychological meaningfulness (May et al., 2004; Spreitzer, 1995).

Bellah et al. (1985, p. 81) defined the meaning of work as the "degree of general importance that the subjective experience of working has in the life of an individual, at any given time". According to Bellah et al. (1985), these subjective experiences could be classified into three main meaning orientations, where the individual experiences his work either as (a) a job, (b) a career, or (c) a calling. Wrzesniewski et al. (1997) point out that individuals who view their

work as a job, are only engaged in work activities for the material benefits they receive (i.e. monetary rewards). In effect, these individuals perceive work to be nothing more than a means to a financial end (Bellah et al., 1985; Parry, 2006), where ambitions are expressed outside of the occupational context (Bellah et al., 1985; Wrzesniewski et al., 1997; Wrzesniewski et al., 2003).

In contrast, individuals who view their *work as a career*, are concerned with the progression of continuous advancement within the corporate structure (Bellah et al., 1985; Parry, 2006; Wrzesniewski et al., 1997) through devoting considerable amounts of time and energy to work activities, attributing it to a temporary expenditure for future gain (Wrzesniewski et al., 1997). Meaning is derived from continuous progression, which facilitates an increase in social standing, perceived power and a higher income (Bellah et al., 1985; Wrzesniewski et al., 1997) which manifests in a significant increase in self-esteem (Bellah et al., 1985), hope (Lopper, 2007), and happiness (May et al., 2004; Seligman, 2002). However, as progression slows, frustration and cynicism grow (Bellah et al., 1985; Wrzesniewski et al., 1997) and result in higher levels of intention to leave as opposed to those who perceive work as a calling (Bellah et al., 1985; Lopper, 2007).

Those who view work as a *calling*, engage in work activities as a result of the fulfilment they derive from work engagement (Bellah et al., 1985) as opposed to financial gains (work as a job) and career advancement (work as a career) (Wrzesniewski et al., 1997). Bellah et al. (1985) as well as Wrzesniewski et al. (1997) found that individuals who perceive work as a calling see work as an end-to-itself. Studies have also shown that these individuals have stronger and more rewarding relationships at work and spend more time engaged in those activities (Carvalho, 2005; Wrzesniewski et al., 1997). These individuals feel that their work positively contributes to humanity, which is in line with their perceived 'purpose in life' (Davidson & Caddell, 1994), and they do not necessarily have to be compensated for their work (Wrzesniewski et al., 1997). Viewing work as a calling also has mutual benefits for the individual, the group and the organisation, regardless of the occupation or the organisation (Wrzesniewski et al., 2003). According to Wrzesniewski et al. (2003), people who view their work as a calling are more committed to the organisation. Similarly Peterson et al. (2009) state the viewing work as a calling relates to higher levels of zest and happiness.

It is important to understand that these meaning orientations aren't necessarily occupationally bound (Wrzesniewski et al., 1997); however, it is presumed that individuals within certain occupations (e.g. counsellors, ministers, priests, psychologists, social workers, medical doctors etc.) are more likely to experience their work as a calling rather than a career or job (Davidson & Caddell, 1994; Wrzesniewski et al., 1997). Even though certain types of occupations might imply higher levels of calling, Wrzesniewski et al. (1997), found that individuals occupying a similar occupation with similar levels in education, pay and time in the organisation are evenly divided into the aforementioned meaning orientations. This study in itself provided an indication that individuals in the same occupation, within the same organisation, with similar tenures and remuneration, can perceive work differently (Wrzesniewski et al., 1997). Consequently, it is safe to presume that it's not the design of the occupation which determines the orientation to the work, but rather the individual's perceptions pertaining to the experience for the work which provides context and shapes its purpose (Wrzesniewski et al., 2003).

Research suggested that even though individuals might differ with reference to Meaning of Works, the effect of meaning of work is clearly [more] visible in an occupation where the individuals are constantly interacting with various social systems within the organisation, since the need for socialisation and affiliation largely contributes to the experience of meaning of work (Bellah et al., 1985; MOW, 1981). Similarly, registered I/O psychologists are known to constantly interact with various social systems within an organisational context (Benjamin & Louw-Potgieter, 2008; Meyers, 2007), though there is no literature available to reference which Meaning of Work the majority of the I/O psychologists are experiencing.

Meaning of work refers to the presence of psychological meaningfulness (see Steger, Frazier, Oishi, & Kaler, 2006). The presence of psychological meaningfulness refers to the subjective sense that one's work is meaningful. Kahn (1990, p. 703) defines psychological meaningfulness as "a feeling that one is receiving a return on investment of one's self in a currency of physical, cognitive, or emotional energy". Individuals experience such psychological meaningfulness when they feel useful and valuable and feel that they are making a difference (Kahn, 1990). Given that psychological meaningfulness reflects a sense of purpose or personal connection to work (Spreitzer, 1995), it is expected that individuals with a calling orientation will experience more meaning in their work than those with job or career orientations. Furthermore, employees who spend time on activities that they want to

spend time on and who experience work-role fit, will experience more psychological meaningfulness as well as higher work engagement (May et al., 2004).

The primary assumption in the literature is that I/O psychologists, similar to counsellors and clinical psychologists, perceive their work as being meaningful, since they also facilitate a psychic transition from pathology to 'normal' or optimal well-being in their clients (LeBon, 2001). LeBon (2001) states that there is a direct correlation between counsellors' and clinical psychologists' work and their '*meaning in life*', which fosters curiosity as to whether the same relationship exists within a sample of I/O psychologists.

Work engagement

The concept of engagement (as a route to happiness) is founded in desire theory (Sirgy & Wu, 2009). This theory focuses on gratification rather than pleasure to increase happiness of people. According to Griffin (1986), desire theory holds that happiness is a matter of getting what you want in the form of truth, illumination and purity. Gratification is enhanced by engaging in activities that generate flow experience (Csikszentmihalyi, 1999). However, the concept of flow (Csikszentmihalyi, 1999) focuses heavily on the cognitive component of work engagement (i.e. absorption), and does not include the physical and emotional component thereof.

According to Simpson (2008), the original research on engagement done by Kahn (1990) served as the foundation for the various lines of engagement research in this field. Kahn (1990, p. 694) defined personal engagement as the behaviours "exerted by employees to bring in or leave out their personal selves during work role exertions." The centralised idea behind Kahn's (1990) theory on personal engagement relates to the identification of three psychological conditions which impact on an individual's engagement, namely (a) psychological meaningfulness (refers to the feeling that one is receiving a return on the invested time and effort these individuals exert in their work roles); (b) psychological safety (refers to the affective exertion that one might express one's own ideas without the fear of repercussions on one's status within the organisation); and finally (c) psychological availability (refers to the inherent affective exertion that one possesses the physical, emotional and psychological resources needed in order to be effective in one's work role).

The definition of work engagement implies that it acts as an indication of individual performance within an organisation (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; May et al., 2004; Schaufeli et al., 2002). Engaged workers contribute to organisational and financial success by showing motivation and organisational commitment (Koyuncu, Burke, & Fiksenbaum, 2006). Disengaged employees, on the other hand, tend to separate themselves from their work roles and tend to cognitively withdraw from the current work situation (Koyuncu et al., 2006). Work engagement is therefore an important factor within any organisation, but more specifically within social service occupations (Meyers, 2007; Simpson, 2008).

Individuals in social service occupations, specifically I/O psychologists, are more prone to become disengaged from their occupation since they are responsible for (and more often than not, internalise) the well-being of other employees (Cooper & Burke, 2006; Meyers, 2007). According to Cooper and Burke (2006), I/O psychologists tend to exert some of the highest levels of work engagement in the United States, alongside other occupations categorised by task variety, complexity and autonomy. In contrast, occupations such as primary school teachers, retail employees, artists and nurses showed the lowest levels of work engagement (Cooper & Burke, 2006). A thorough literature search on the levels of work engagement of I/O psychologists within South Africa was conducted, with no feasible results. Therefore, research is needed regarding the engagement of I/O psychologists.

A lack of information exists regarding the effects of meaning of work and work-role fit on I/O psychologists' experiences of psychological meaningfulness in their work, and the effects thereof on their engagement. Scientific information about these issues can be of great value in the development of the I/O psychology profession, and in implementing programmes to address the happiness of I/O psychologists.

The following research questions emerged from the above-mentioned description of the research problem:

- How are work-role fit, meaning of work, psychological meaningfulness, work engagement, and the relationships between these constructs conceptualised in literature?
- How do I/O psychologists experience the meaning of their work?

- What is the relationship between the work-role fit, meaning of work, psychological meaningfulness in work and work engagement in a sample of I/O psychologists?
- Does psychological meaningfulness mediate the relationship between work-role fit and work engagement in a sample of I/O psychologists?

In order to address the aforementioned research questions, the following research objectives are set.

1.2 RESEARCH OBJECTIVES

The research objectives are divided into general and specific objectives.

1.2.1 General objective

The general objective of this research is to investigate the relationships between the work-role fit, meaningfulness (meaning of work; psychological meaningfulness) and work engagement of I/O psychologists in South Africa.

1.2.2 Specific objectives

- To conceptualise work-role fit, meaning of work, psychological meaningfulness, work engagement, and the relationships between these constructs from literature.
- To determine how I/O psychologists experience the meaning of their work.
- To investigate the relationships between work-role fit, meaning of work, psychological meaningfulness, and work engagement in a sample of I/O psychologists.
- To assess whether psychological meaningfulness mediates the relationship between work-role fit and work engagement in a sample of I/O psychologists.

1.3 PARADIGM PERSPECTIVE OF THE RESEARCH

According to Mouton and Marais (1988), a paradigm perspective directs the research through the identification of its intellectual climate and –resources. Through the identification of these paradigms, one provides a theoretical foundation for all aspects pertaining to the given research project.

1.3.1 Intellectual Climate

The intellectual climate of a research project pertains to a variety of metatheoretical values, beliefs and assumptions held by those individuals participating, or following a specific frame/domain/paradigm in research at any given stage (Mouton & Marais, 1988). These values, beliefs and assumptions can be traced back to non-scientific contexts, consequently not directly relating to the theoretical objectives of the research (Mouton & Marais, 1988). This implies that these assumptions, beliefs and values aren't related to the epistemological aims of the specific research project (Mouton & Marais, 1988). Furthermore, Mouton and Marais (1988) state that through the identification of the meta-theoretical assumptions and the disciplinary relevance of the research, one would be able to determine the intellectual climate.

1.3.1.1 Discipline

This research falls within the boundaries of social sciences, more specifically the behavioural sciences. The main paradigm of this research is industrial psychology, where the focus lies on studying the behavioural and mental processes of individuals within an organisational setting (Meyers, 2007). The main idea behind this paradigm in psychology is to apply psychological principles, processes and practices within an organisational setting in order to facilitate an increase in overall efficacy and effectiveness in the organisation and to increase wellness within the individual (Kreitner & Kinicki, 2007; Meyers, 2007). However, to direct the research one must elaborate on the sub-disciplines of the paradigm to enhance the understanding of the current research project.

According to Shaughnessy, Zechmeister, and Zechmeister (2003), a sub-discipline can be defined as a field of study that relates to one dimension of a paradigm of a broader field of study, but not to the whole (in this case industrial psychology). In essence, the sub-disciplines that are applicable to this research are (a) organisational behaviour (and specifically positive organisational scholarship), and (b) personnel psychology. In order to enhance the understanding of these constructs, formalised definitions will be provided to facilitate an understanding of the context in which it resides.:

Organisational behaviour is directed at studying the behaviour of individuals, groups and organisations in the work situation (Rothmann & Cooper, 2008). It focuses on topics such as motivation, communication, leadership, group dynamics, well-being, organisational design and organisational development. Positive organisational scholarship can be defined as a sub-discipline of positive psychology, where the emphasis lies on understanding, predicting and conceptualising the antecedents and consequences of positivistic behavioural exertions at work (Cameron et al., 2003; Luthans, 2002). **Personnel psychology** focuses on the utilisation and application of psychological techniques in order to examine individual differences and their consequences within an organisational context (Kreitner & Kinicki, 2007).

1.3.1.2 Meta-theoretical assumptions

According to Mouton and Marais (1988), meta-theoretical assumptions are those assumptions which are concerned with other assumptions of other theories. Both the literature review and the empirical study are done with the ecosystemic approach in mind. Whereas the empirical study not only focuses on the ecosystemic approach, but also integrates the humanistic-existential perspective.

Literature review

The literature review is focused on the ecosystemic approach.

According to Meyer, Moore, and Viljoen (2005) the ecosystemic approach is not a specific paradigm, but can rather be seen as an integration of various focus areas. These areas include, but are not limited to, cybernetics, systems and ecology (Meyer et al., 2005). The basic assumption behind this approach is centred on the idea that an individual is comprised of various interrelated systems, who is viewed as a subsystem which functions as part of a hierarchy of larger systems (Meyer et al., 2005; Ross & Deverell, 2005). This theory presumes the meaning an individual derives from activities is as a result of the interconnection between the various elements within the human subsystem, inherent environmental demands and perceptions pertaining to the activity (Meyer et al., 2005; Ross, 1997). This serves as the foundation for the research, because the focus lies on determining what environmental factors (work activities) facilitate the development of work-role fit, meaningfulness and work engagement.

Empirical study

The empirical study is focused on the ecosystemic (see section 3.2.1) and humanistic-existential approaches in mind.

According to Hales (2000), the **humanistic-existential approach** forms part of the person-oriented approaches to psychology. The humanistic-existential approach serves as a combination of both Frankl's logotherapy and the person-centred approach propagated by Carl Rogers (Hales, 2000). Meyer et al. (2005) summarised Frankl's findings through stating that the existential approach defines human behaviour as process of continuous change and transformation, which centres on the idea of exploring meaning and learning to live life in accordance with one's own ideals. Meyer et al. (2005) argue that the underlying assumption of this approach is rooted in the fact that human beings are more than just cogs in a machine, where the primary motivators are (a) the freedom of the will (b) the will to find meaning and (c) the meaning of life. The freedom of will emphasises that the individual experiences his will as being free therefore implying that individual is free to make his own choices. These choices are, however, influenced by both the individual's inherent limitations and environmental demands. According to Hales (2000), man's will to [search for] meaning acts as the primary motivation in life, where the individual strives towards finding and fulfilling a reason for his existence. Finally, Meyer et al. (2005) state that the meaning of life can be found in the (a) creative and pleasurable activities an individual tends to engage in, (b) during social interaction through experiencing someone or something and (c) through our perceptions pertaining to unavoidable suffering.

It is therefore important to understand that an individual's search for meaning is his primary motivation in life and once a reason for existence is found (whether at work, or in leisure) an individual would lead a more fulfilling life (Hales, 2000; Meyer et al., 2005). Through this perspective, one would be able to identify which work activities provide the most meaning to the individual and therefore one would be able to address inherent occupational demands through redesigning the individuals' work in order to have the individual spend more time on those work activities he or she values most (Pieper & Pieper, 2002). Through engaging in activities with high meaning, it will enhance the inherent psychological strengths of the I/O psychologists in order to increase their psychological resilience and hardiness (Pieper & Pieper, 2002).

1.3.2 Market of intellectual resources

According to Mouton and Marais (1988, p. 64), the market of intellectual resources refers to “the collection of beliefs which has a direct bearing upon the epistemic status of scientific statements”. The market of intellectual resources is divided into two main categories, (a) theoretical beliefs and (b) methodological beliefs.

1.3.2.1 Theoretical beliefs

Theoretical beliefs can be described as the beliefs that produce measurable end-results regarding any form of social phenomena being studied (Mouton & Marais, 1988). In accordance with this, this section is divided into two sections, (a) conceptual definitions and (b) models and theories which should serve as the foundation for the research.

Conceptual definitions

The following conceptual definitions are relevant to this research:

Work-role fit can be defined as an individual’s perceived ‘fit’ between his self-concept and the role the individual portrays in the organisation (May et al., 2004).

Meaning of work (which is synonymous with meaning orientations and Meaning of Work) can be defined as the “degree of general importance that the subjective experience of working has in the life of an individual, at any given time” (Bellah et al., 1985). According to Bellah et al. (1985), these subjective experiences could be classified into three main domains, where the individual experiences his work either as (a) a job, (b) a career or (c) a calling.

Kahn (1990, p. 703-704) defines psychological meaningfulness as “a feeling that one is receiving a return on investment of one’s self in a currency of physical, cognitive or emotional energy”.

Work engagement can be defined as behaviours “exerted by employees to bring in or leave out their personal selves during work role exertions [...] and manifests in an emotional, cognitive and behavioural dimension” (Kahn, 1990, p. 694).

An I/O psychologist is an individual who “applies the principles of psychology to issues related to the work situation to optimise individual, group and organisational well-being and effectiveness” (HPCSA, 2009).

Models and theories

A model is seen as a hypothetical description of a complex process (Mouton & Marais, 1988). According to Mouton and Marais (1988), a model in social sciences can be defined as a theoretical construct which represents a specific social or psychological process via a set of defined variables; and the logical and qualitative (and quantitative) relationships between them. In essence, the model provides a simplified framework to illustrate complex processes.

A theory in the social sciences can be seen as an organised system of accepted knowledge, comprised of various facts, constructs, phenomena, perceptions and definitions, which manifests as a certain belief which can guide behaviour (Mouton & Marais, 1988). This system of knowledge applies to a variety of different circumstances and is used to explain or predict a set of specific phenomena (Mouton & Marais, 1988).

Through using the May et al. (2004) model of engagement as the foundation for this research and incorporating the meaning of work (Bellah et al., 1985; Wrzesniewski et al., 1997); a conceptual model for the research was developed.

Firstly, the engagement model suggested by May et al. (2004) suggests three approaches towards engagement, namely (a) psychological meaningfulness, (b) psychological safety and (c) psychological availability (May et al., 2004). For the purpose of this research, the first approach towards engagement (namely psychological meaningfulness) is important. The extrapolated part of the model between psychological meaningfulness and engagement suggests that if there is congruency between an individual’s perceived fit with his work and his self-concept (work-role fit), it directly relates to the experience of psychological meaningfulness in work (May et al., 2004). Furthermore, May et al. (2004) propagates that the experience of psychological meaningfulness in work is necessary for the inception of work engagement.

Secondly, one would need to look at the theory for meaning of work proposed by Bellah et al. (1985). Bellah et al. (1985) define the meaning of work as the “degree of general importance that the subjective experience of working has in the life of an individual, at any given time”. According to Bellah et al. (1985), these subjective experiences could be classified into three main domains, where the individuals experience their work either as (a) a job, (b) a career or (c) a calling. According to Wrzesniewski et al. (1997), individuals who view their *work as a job*, are only engaged in work activities for the material benefits they receive (i.e. monetary rewards).

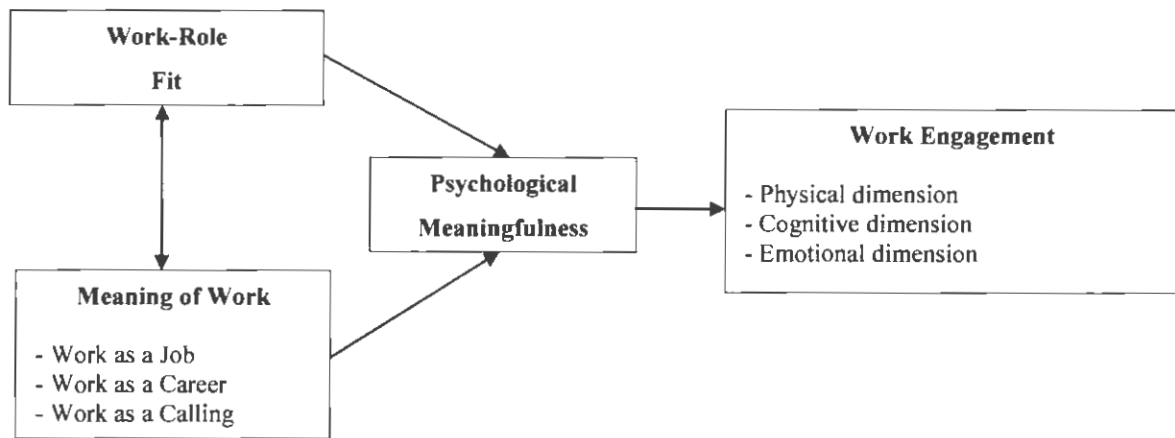


Figure 1. Conceptual model for the research

Individuals who view their *work as a career*, are concerned with the progression of continuous advancement within the corporate structure (Parry, 2006; Wrzesniewski et al., 1997). Finally, those who view work as a calling, engage in work activities as a result of the fulfilment they derive from said work engagement (Bellah et al., 1985) as oppose to financial gains (work as a job) and career advancement (work as a career) (Wrzesniewski et al., 1997).

1.3.2.2 Methodological beliefs

Methodological beliefs can be defined as a set of concrete philosophies which serves as the foundation for the development of judgements concerning the innate nature and structure of scientific research (Mouton & Marais, 1988). Methodological beliefs are composed out of philosophical traditions and the most important methodological models pertaining to the research.

The empirical study is presented within ecosystemic and humanistic-existential paradigms in mind. The primary assumption of the ecosystemic paradigm is that an individual is comprised of various interrelated systems, where he is viewed as a subsystem which functions as part of a hierarchy of larger systems (Meyer et al., 2005; Ross & Deverell, 2005). This theory presumes the meaning an individual derives from activities is as a result of the interconnection between the various elements within the human subsystem, inherent environmental demands and perceptions pertaining to the activity (Meyer et al., 2005; Ross, 1997).

The second paradigm of the research is focused on the existential-humanistic view of human behaviour, where the focus lies on the individual's perceptions pertaining to external environmental stimuli (Hales, 2000). The primary assumption behind this approach is that human beings are more than just cogs in a wheel and it emphasizes study of the person as an integrated whole (integrating the physical, psychological and spiritual dimensions of human behaviour) (Meyer et al., 2005). The underlying assumption of this theory is rooted in the fact that the basic human motive (a search for meaning) directs behaviour and influences perception, which inadvertently affects perceptions pertaining to the meaning of work (Bellah et al., 1985; Meyer et al., 2005). According to Hales (2000) and Meyer et al. (2005), this approach is based on a few central ideas, the most important of which is that humans have free will and that not all behaviour is the result of conflict between inner and external forces, but rather as a result of his will to meaning. These individuals also believe that each individual has an innate desire to achieve his maximum potential through engaging in meaningful activities (Meyer et al., 2005; Pieper & Pieper, 2002), where the lack of meaning manifests in neurosis (Hales, 2000).

1.4 RESEARCH METHOD

The research method for this research consists of a literature review and an empirical study. The results will be presented in the form of a research article.

1.4.1 Phase 1: Literature review

The literature review will focus on prior research done pertaining to the work-role fit, meaning of work, psychological meaningfulness, work engagement, and the relationships

between these variables of I/O psychologists; as well as how to measure the latter mentioned constructs.

Relevant articles published between 1950 and 2010 will be identified, using article databases such as *EBSCOHOST*, *Emerald*, *Science Direct*, *Google Scholar*, *WEBfet*, *SAePublications*, *Proquest*, *ISI web of knowledge*, *SAB Inet Online*, *Jstor*, *Springlink* and *Metacrawler*. The following terms will be used as search terms: meaning, work, meaning of work, engagement, work-role fit, work activities, I/O psychologists accompanied by positive psychology, psychofortology, positive organisational scholarship, models, counsellors and psychologists.

The following journals will be studied as a result of their relevance to said topic: *Academy of Management Journal*, *Human Resource Management Journal*, *Australian Psychologist*, *Journal of Applied Psychology*, *Canadian Journal of Behavioural Science*, *TIP: The Industrial-Organisational Psychologist*, *Journal of Industrial Psychology*, *Journal of Occupational and Organisational Psychology*, *Journal of Business and Psychology*, *Journal of Management*, *Journal of Occupational Health Psychology*, *the Journal of Applied Psychology*, *Industrial and Organisational Psychology: Perspectives on Science*, *Modern Psychological Studies*, *Psychology Online Journal*, *Journal of Occupational and Organisational Psychology*, *Journal of Organisational Behaviour*, *Journal of Clinical Interventions*, *Personnel Psychology*, *Journal of Vocational Behaviour*, *Journal of Managerial Psychology* and *South African Journal of Industrial Psychology*. Cross referencing will be done when identifying another important source of information whilst studying a specific article mentioning a reliable source.

1.4.2 Phase 2: Empirical study

The empirical study will consist of the research design, the participants, the measuring battery, the statistical analysis and the ethical considerations of the study.

1.4.2.1 Research design

According to Mouton and Marais (1988), the purpose of the research design is to provide the researcher with guidelines pertaining to his research and to minimise the potential sources of errors which might become apparent during the course of the research. The research design

illuminates the type of sampling method to be used, how the data will be collected and then the way in which it would be analysed (Mouton & Marais, 1988). In essence, the research design should direct the course of the research in order to meet its primary aim (Mouton & Marais, 1988).

This research could be seen as **descriptive** because no research has been done pertaining to the relationship between the work-role fit, meaning of work, psychological meaningfulness and work engagement of I/O psychologists within South Africa. The research aims to obtain information about the current state of the participants (Shaughnessy et al., 2003). A **cross-sectional design** will be used in order to obtain data and research objectives. According to Shaughnessy et al. (2003), this type of design is the most popular and allows that multiple samples are drawn from the population at one point in time.

1.4.2.2 Participants

In 2008 there were 1062 I/O psychologists registered with the HPCSA (Benjamin & Louw-Potgieter, 2008), therefore a convenience sample ($n=110$) will be taken from all the registered I/O psychologists within South Africa. This sampling method selects participants, in part or as a whole, at the convenience of the researcher and the availability of the participants (Shaughnessy et al., 2003). It is important to understand that the sample size is large enough to generalise the findings to the larger population and should provide a thorough understanding of the relationship between the selected variables within the selected population (Shaughnessy et al., 2003).

1.4.2.3 Measuring battery

The following questionnaires will be used in the empirical study:

A biographical questionnaire will be compiled and used in order to gather information pertaining to the age, gender, ethnicity, demographic origin, marital status, parental status, language of choice, years registered, and the amount of time spent on the 6 broad categories of work (see Benjamin & Louw-Potgieter, 2008) of the participants. This questionnaire will consist of a set of multiple-choice questions where the respondents need to tick those blocks

which are relevant to them, as well as provide extra space for any other aspects which they feel need to be mentioned and which are relevant to the study.

The *Work-role Fit Scale* (WRFS) will be used to measure work-role fit. It is measured by averaging four items from May et al. (2004) which directly measured individuals' perceived fit with their jobs and self-concept. For all items, a 5-point agreement-disagreement Likert format from 1 (*never*) to 5 (*always*) will be used. Some of the items included in this measure are "My job 'fits' how I see myself"; "I like the identity my job gives me"; and "My job 'fits' how I see myself in the future". According to May et al. (2004) the internal consistency of the WRFS in a large insurance company is represented by a Chronbach alpha coefficient of 0,92.

The *Work-Life Questionnaire* (WLQ) developed by Wrzesniewski et al. (1997) will be utilised in order to determine the levels of meaning (Meaning of Works) I/O psychologists associate with their work. According to Wrzesniewski et al. (1997) the WLQ is a self-report measure which aims at classifying an individual's orientation to work into three main categories: (a) work as a job, (b) work as a career or (c) work as a calling. The questionnaire is divided into two parts, the first contains a set of three paragraphs representing the three main meanings of work, whereby the respondent is encouraged to rate his level of association, with each paragraph on a scale of 1 (*not at all*) to 4 (*completely*). The second part consists of a set of 18 items to substantiate the respondent's position on the first part of the questionnaire. The items are also rated on a 5 point Likert scale of 1 (*not at all*) to 4 (*completely*). Some of the items included on the second part are "My primary reason for working is financial" and "I find my work rewarding". The results of this questionnaire provide an indication of where on the job-career-calling continuum the respondent falls; and to measure his current levels of job satisfaction. According to Smith, Kain, Yugo, and Gillespie (in press), the internal consistency of the WLQ within a sample of undergraduate psychology students is represented by Chronbach alpha coefficients which range from 0,47 to 0,77 on the various subscales: (a) on the job subscale 0,65; (b) on the career subscale 0,47; and (c) on the calling subscale 0,77.

The *Psychological Meaningfulness Scale* (PMS) will be used to measure psychological meaningfulness. It will be measured by averaging six items drawn from Spreitzer (1995) and May et al. (2004). For all items, a 5-point agreement-disagreement Likert format from 1 (*never*) to 5 (*always*) will be used. These items measure the degree of meaning that

individuals discovered in their work-related activities (e.g., “The work I do on this job is very important to me” and “My job activities are personally meaningful to me.” According to May et al. (2004) the internal consistency of the PMS in a large insurance company is represented by a Chronbach alpha coefficient of 0,90.

The *Work Engagement Scale* (WES) which was developed by May et al. (2004) will be adapted and used to measure work engagement. For all items, a 5-point agreement-disagreement Likert format from 1 (*never*) to 5 (*always*) will be used. The items will reflect each of the three components of Kahn’s (1990) conceptualisation of work engagement, namely cognitive (“Time passes quickly when I perform my job”); emotional (“I really put my heart into my job”); and physical engagement (“I take work home to do”). Olivier and Rothmann (2007) found a one-factor engagement model consisting of cognitive, emotional and physical engagement ($\alpha = 0,72$), which is consistent with findings by May et al. (2004), where fewer items were used.

1.4.2.4 Statistical analysis

The statistical analyses will be carried out with the SPSS program (SPSS Inc., 2009). Descriptive statistics in terms of means, standard deviations, skewness and kurtosis will be used in order to analyse the data. Exploratory factor analyses and Cronbach alphas will be used to determine the construct validity and reliability of the measuring instruments. Depending on the distribution of the data, either a Pearson product-momentum correlation or Spearman correlation coefficients will be used to specify the relationships between the variables. A 95% confidence interval with p-value smaller or equal to 0,05 will be used for statistical significance. A cut-off point of 0,30 (medium effect) will be set for the practical significance of correlation coefficients (Cohen, 1992). Connonical correlations will be used to determine the relationships between the multiple variables.

Multiple regression analyses will be carried out to determine the percentage variance in the dependent variables that is predicted by the independent variables. Multivariate analysis of variance (MANOVA) will be used to determine the significance of differences between the meanings of work and work engagement.

1.4.2.5

Ethical considerations

The purpose of fair and ethical research within a psychological paradigm is of crucial importance within modern-day research. The absence of such behaviour could lead to dire consequences such as: (a) the exploitation of the participants; (b) researchers overstepping the ethics laid down by legislation and councils such as the APA, NRF and HPCSA; and (c) the law being broken, consequently violating the protection of the participants in the research. Ethical standards are developed to ensure that not only social-, legal- and statutory requirements are met, but to provide guidelines on the type of behaviour to be expected from the researcher and what the consequences of any deviant, unprofessional, or negligent behaviour will be (APA, 2003; Cummings & Worley, 2005). In essence, ethics are centred on two main ideas, namely (a) the protection- and (b) fair treatment of the research participants. According to the Denzin and Lincon (2000), these two ideas manifests in five core ethical dimensions which culminate in the (a) obligations to society; (b) obligations to the funders; (c) obligations to colleagues; (d) obligations to the participants; and (e) obligations to ethic committees; legislation and institutional review boards.

To uphold these obligations, the researcher should always put the participants' safety and security first. In order to establish trust, the entire project would be discussed (via e-mail) with the participants. Here the outline of the project will be elaborated on and the participants will be provided the opportunity to ask questions, make statements and discuss the project before considering participation. During this time the roles and responsibilities of all the parties involved will be outlined and the participants would be made aware of the fact that the researcher would be actively involved in the entire process. The participants will be informed that their participation in the project is completely voluntary and that they could remove themselves from the proceedings at any time. Once this has been done, the researcher will provide the participants with a consent form which statutes that the information obtained via the research would only be used for educational purposes and that they would in no way be negatively influenced by the information obtained during the process of the proceedings. The researcher would make himself available to the participants at any time, should they want to discuss issues manifested during the course of the project. To protect the individual's identity, the participants would not be asked to provide their names on the surveys.

1.5 CHAPTER DIVISION

The chapters in this mini-dissertation are presented as follows:

Chapter 1: Research proposal and problem statement

Chapter 2: Research article

Chapter 3: Conclusions, limitations and recommendations

1.6 CHAPTER SUMMARY

This chapter introduced the background to the problem; it outlined the research objectives; and the significance of the study. It described the paradigms from which the study will be approached. Relevant concepts were defined. The research methodology was highlighted. This will serve as the background for the presentation of the material and evidence presented in the remainder of this study. The empirical findings will be discussed in Chapter 2, whereas the limitations and recommendations will be discussed in Chapter 3.

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WORK-ROLE FIT, MEANINGFULNESS AND ENGAGEMENT OF INDUSTRIAL/ORGANISATIONAL PSYCHOLOGISTS IN SOUTH AFRICA

ABSTRACT

The objective of this study was to investigate registered industrial/organisational (I/O) psychologists' work-role fit, meaningfulness and work engagement. A survey design with a convenience sample ($n = 106$) was used. The Work-Role Fit Scale, Work-Life Questionnaire, Psychological Meaningfulness Scale, and Work Engagement Scale were administered. The results showed that half the I/O psychologists view their work as a calling. The results showed that work-role fit predicts psychological meaningfulness and work engagement. A calling orientation towards work predicted both psychological meaningfulness and work engagement. Work-role fit mediated the relationship between a calling orientation and psychological meaningfulness. Work-role fit partially mediated the relationship between a calling orientation and work engagement.

Happiness is an elusive concept, yet a 'buzz-word' in modern society (Seligman, 2002). The concept has been the subject of much scrutinisation and debate in recent years (Peterson, Park, Hall, & Seligman, 2009; Seligman, 2002; Sirgy & Wu, 2009). Happiness refers to the experience of a sense of joy, satisfaction, and positive well-being, combined with a sense that one's life is good, meaningful and worthwhile (Seligman, 2002). Seligman (2002) points out that more than half the world's population is unhappy. These individuals lack enthusiasm and are not actively and productively engaged with the world (Ryan & Deci, 2001; Seligman, 2002; Seligman, 2008). Research shows that the presence of happiness manifests in various positive end-results, including superior attention, longevity, recovery from illnesses, and protecting people against the onset of physical diseases and pathology (Seligman, 2008). While happiness is an important concept, both for individuals and organisations, little research exists about happiness and the components thereof within a South African context.

The origins of happiness could be traced back to two philosophies, namely hedonism (Nelson-Jones, 2004; Ryan & Deci, 2001) and eudaimonia (Ryan & Deci, 2001). The hedonic approach focuses on pleasures of the mind as well as the body and the avoidance of pain (Nelson-Jones, 2004; Ryan & Deci, 2001; Sirgy & Wu, 2009). Eudaimonia is concerned with a deeper level of perceived happiness (Ryan & Deci, 2001) and can be linked to two theories, namely desire theory and objective list theory. Desire theory is concerned with gratification and the fulfilment of desires which contribute to happiness despite the amount of pleasure or displeasure (Griffin, 1986; Seligman & Royzman, 2003). Objective list theory maintains that happiness is derived from achieving goals from a list of meaningful life or career pursuits (Nussbaum, 1992; Sirgy & Wu, 2009).

Peterson, Nansook, and Seligman (2005) proposed an integrated model for happiness flowing from the hedonic and eudaimonic approaches. Building on the original conceptualisation of Seligman (2002), Peterson et al. (2005) suggest three routes to happiness, namely pleasure ('the pleasant life'); meaningfulness ('the meaningful life'); and engagement ('the good life'). The experience of pleasure and engagement are subjective (Nelson-Jones, 2004; Ryan & Deci, 2001; Seligman & Royzman, 2003; Sirgy & Wu, 2009); whereas meaningfulness is partly objective and rooted in a sense of purpose which goes beyond life's pleasures and desires (May, Gilson, & Harter, 2004; Peterson et al., 2005; Seligman, 2002; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997).

Peterson et al. (2005) found that the routes to happiness are discernible, compatible and could be pursued simultaneously. Engagement and meaning as routes to happiness seem more under deliberate control of individuals than pleasure (May et al., 2004; Seligman et al., 2004). Interventions which target engagement and meaningfulness seem most fruitful, linked with pleasure flowing from them (Seligman, 2002). Seligman (2002) propagates a genetic set point for the experience of pleasure. Therefore, interventions which target only the pleasure of individuals (to promote happiness) will be short-lived and ineffective (Seligman, 2002; Seligman, Steen, Park, & Peterson, 2005).

Meaningfulness and engagement are also important concepts within a work context (May et al., 2004), since individuals spend more than a third of their lives engaged in work-related activities (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Wrzesniewski et al., 1997). Individuals build their identities around their work (Kristof, 1996; Meyers, 2007; MOW International Research Team, 1981; Nelson-Jones, 2004), since work is central to their existence (Harpaz, Honig, & Coetsier, 2002). Work is an important context to engage individuals in goal-directed activities, and to provide meaning (Cameron, Dutton, & Quinn, 2003; Wrzesniewski et al., 1997). Work-role fit (Dik & Duffy, 2008; Kristof, 1996; May et al., 2004); meaning of work (Peterson et al., 2009; Wrzesniewski & Tosti, 2005); psychological meaningfulness (Kahn, 1990; May et al., 2004); and work engagement have recently become important research topics (May et al., 2004; Schaufeli & Bakker, 2004).

The perceived fit between individuals' self-concepts and their roles within the organisation (work-role fit), result in the experience of meaningfulness and engagement (Kahn, 1990; May et al., 2004; Olivier & Rothmann, 2007). Work roles and activities which are aligned with individuals' self-concepts should be associated with more meaningful work experiences (May et al., 2004; Seligman, 2002). Participating in activities that are congruent with an individual's values (Waterman, 1993) and/or signature strengths (Peterson & Seligman, 2004; Seligman, 2002), contribute to the experience of psychological meaningfulness and engagement in work (May et al., 2004).

Closely linked to the concept of work-role fit is meaningfulness. Meaningfulness manifests in (a) the meaning of work (Bellah et al., 1985; Wrzesniewski et al., 1997), and (b) psychological meaningfulness (Kahn, 1990; May et al., 2004). Bellah et al. (1985) define the meaning of work (which is synonymous with the concept '*work orientation*') as the level of

general significance that the subjective experience of working has in the life of individuals at a given time stamp. Bellah et al. (1985) cluster this subjective experience into three broad Meaning of Works, namely work as a *job* (engaging in work activities for the material benefits); work as a *career* (engaging in work activities to move up the corporate ladder); and work as a *calling* (feeling that one has been placed on earth to fulfil these specific work activities). In South Africa studies pertaining to work-role fit and meaningfulness, in both its facets namely (a) the meaning of work (Carvalho, 2005); and (b) psychological meaningfulness (Olivier & Rothmann, 2007); have been limited.

Psychological meaningfulness is defined as the “the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards” (May et al., 2004, p. 14). According to Spreitzer, Kizilos, and Nason (1997), meaningful work facilitates individuals’ personal development and work motivation. Psychological meaningfulness has been shown to lead to greater commitment and life satisfaction (Peterson et al., 2005). Experiencing a lack of psychological meaningfulness in one’s work can lead to disengagement (Kahn, 1990; Olivier & Rothmann, 2007). Psychological meaningfulness also has important implications for job design, employee retention, employee relations and recruitment practices (Olivier & Rothmann, 2007). Meaning attached to (meaning of work) and derived from work (psychological meaningfulness) influences other work-related outcomes such as work engagement, job satisfaction, motivation, organisational citizenship behaviour and well-being (Brief & Nord, 1990; Dik & Duffy, 2009; May et al., 2004; Pratt & Ashforth, 2003; Wrzesniewski & Dutton, 2001). Developing a deeper understanding of psychological meaningfulness could provide insight into the reasons for (dis)engagement within the multicultural society South Africa holds.

Work engagement is an important ideal within the current economic situation in South Africa. Kahn (1990, p. 694) defines work engagement as an “extension of individuals’ selves to a work-role whereby they employ and express themselves physically, cognitively and emotionally during role performance”. In a South African context, no research literature has been found relating to I/O psychologists’ level of engagement.

The work of industrial/organisational (I/O) psychologists presents an interesting context for studying work-role fit, meaningfulness and engagement for three reasons. Firstly, I/O psychologists are trapped between their roles as traditional human resource practitioners and

psychologists (Barnard & Fourie, 2007; Benjamin & Louw-Potgieter, 2008). Barnard and Fourie (2007) argue that many of the inputs of I/O psychologists are not of an I/O psychological nature. I/O psychologists spend approximately six to eight years studying in order to register as psychologists, however end up in traditional HR positions. The I/O psychologists might spend less time on desired activities (e.g. counselling, mentoring and coaching), consequently increasing the gap between their work-role and their self concept. This could result in disengagement (May et al., 2004; Olivier & Rothmann, 2007), which contributes to the lack of happiness (Seligman, 2002). No research has been found on the I/O psychologist's current experience of work-role fit, which plays an important role in the onset of psychological meaningfulness and engagement.

Secondly, Bellah et al. (1985) argue that the effect of the meaning of work is clearly visible in social occupations. These occupations refer to careers where individuals are constantly interacting with various social systems within an organisation (Bellah et al., 1985). According to Benjamin and Louw-Potgieter (2008), the I/O psychologist spends 88% of his working day interacting with people. The work activities I/O psychologists engage in are classified in terms of six dimensions, namely psychological assessment; therapy and counselling; human resource management; human resource administration; training and development; and interventions and consultations. Therefore, the question arises how I/O psychologists experience the meaning of their work (in terms of a job, a career or a calling) and whether meaning of work is related to the activities they are currently involved in. It is also not clear whether their meaning of work will be related to the experiences of psychological meaningfulness and engagement.

Thirdly, Cameron et al. (2003) argue that I/O psychologists are the primary role models for change, happiness and hope within organisation. I/O psychologists are perceived to be leaders within the organisation (Barnard & Fourie, 2007). Luthans (2002) states that in times of great uncertainty, negativity and festered helplessness, individuals turn to leaders for hope, optimism and direction. If the I/O psychologist isn't happy (i.e. not experiencing psychological meaningfulness and engagement), it could spill over onto the employees and result in mass-psychogenic illnesses (Meyers, 2007). Information about the manifestation of I/O psychologists' work engagement and meaning is therefore needed. The studies of Kahn (1990) and May et al. (2004) showed that work roles and activities which are aligned with

individuals' self-concepts should be associated with more psychological meaningful work experiences, which can impact on their work engagement.

A lack of information exists regarding the effects of meaning of work and work-role fit on I/O psychologists' experiences of psychological meaningfulness in their work, and the effects thereof on their engagement. Scientific information about these issues can be of great value in the development of the I/O psychology profession, and in implementing programmes to address the happiness of I/O psychologists. As happiness facilitators and changes agents, I/O psychologists need to show happiness (in terms of meaningfulness and engagement), in order to ensure that it spills over onto their employees.

The objective of this study was to investigate the relationships between the work-role fit, meaningfulness (meaning of work; psychological meaningfulness), and work engagement of I/O psychologists in South Africa.

Work-role fit

Psychologists have long been interested in the relationship between the individual and his role in the organisation (Kahn, 1990; Kreitner & Kinicki, 2007; Kristof, 1996). The origins of work-role fit lie deep within the trait-and-factor theory (Eysenck, 1967). The trait-and-factor theory suggests that there should be a probable fit between the individual and the job he is performing (James & Gilliland, 1998; LeBon, 2001; Meyers, 2007). The trait-and-factor theory evolved into the person-environment fit theory (Kristof, 1996), which later manifested in work-role fit (Kristof, 1996; Meyers, 2007). Kahn (1990) conceptualised work-role fit as the extension of an individual's self-concept to a work role. Closer proximity between an individual's self-concept and his work role induces psychological meaningfulness since he is able to express his beliefs, values and principles openly (Kahn, 1990; May et al., 2004; Olivier & Rothmann, 2007).

Research suggests that individuals will seek out work-roles which allow them to express their true selves (May et al., 2004; Olivier & Rothmann, 2007). Authenticity is facilitated through the freedom to express creativity and uniqueness (Peterson & Seligman, 2004; LeBon, 2001). According to Dik and Duffy (2008), high levels of stress, burnout, pessimism and frustration are related to poor work-role fit. Individuals experiencing high levels of work-role fit

perceive their jobs to be callings and are willing to go beyond occupational restraints to accomplish tasks (Dik & Duffy, 2008). Experiencing low levels of work-role fit will lead to job re-crafting (Dik & Steger, 2008; Wrzesniewski, 2003; Wrzesniewski & Dutton, 2001), whereby individuals re-shape their work activities in order to derive more meaning (Wrzesniewski, 2003). Wrzesniewski and Dutton (2001) propagate that these individuals transform cognitive processes, work activities and/or relational boundaries in order to form relationships and shape relationships with others at work. This implies that these tailored cognitive processes, work activities and relational boundaries change the perception of the external environment which affects the meaning one derives from work and one's work identity (Berg et al., 2008; Wrzesniewski & Dutton, 2001).

Job re-crafting is used in order to reshape the working world to ensure a closer work-role fit (Berg, Dutton, & Wrzesniewski, 2008). The closer the relationship between the self and the work role, the more meaning and engagement are derived (Berg, Dutton & Wrzesniewski, 2008). The process of crafting one's job to close the gap between the self and the work role is a continuous process (Berg et al., 2008; Wrzesniewski & Dutton, 2001). Research has shown that individuals are continuously searching for meaningful work experiences (Dik & Duffy, 2009), which is facilitated through job re-crafting (Berg et al., 2008). Job re-crafting is motivated by the discrepancy between the self and the work/lack of work-role fit (Berg et al., 2008).

Since the primary activities of the I/O psychologist are that of a human resource practitioner (Barnard & Fourie, 2007; Benjamin & Louw-Potgieter, 2008), it is presumed that these individuals will experience a greater discrepancy in their work-role fit (Kristof, 1996). It would be ideal if I/O psychologists could experience high levels of work-role fit in order to ensure an increase in the positive forces facilitating psychological meaningfulness and work engagement.

Meaning and work

Individuals have an inherent drive to quantify the significance, importance and meaning of their lives (Baumeister & Vohs, 2002) and consequently work (Bellah et al., 1985). The need to make meaning out of work is brought on by a yearning to understand the purpose of events, information and situations (Baumeister & Vohs, 2002; Wrzesniewski, Dutton &

Debebe, 2003). Individuals build their lives around work (Kristof, 1996; Meyers, 2007; MOW International Research Team, 1981; Nelson-Jones, 2004), yet little is known about how meaningfulness in work is created and manifested (Wrzesniewski et al., 2003). Even though a whole host of theoretical studies on the meaningfulness exist (Bellah et al., 1985; Carvalho, 2005; England, 1991; Harpaz, 1985; MOW International Research Team, 1981; Parry, 2006; Wrzesniewski et al., 2003; Wrzesniewski et al., 1997) a concrete, multidisciplinary, mutually acceptable definition is still absent. The absence of a mutually acceptable definition could be attributed to the unknown origin of the concept (Bellah et al., 1985; Carvalho, 2005).

The origin of the concept of meaning can be traced back to the work of Victor Frankl (Bellah et al., 1985; MOW, 1981; Wrzesniewski et al., 2003). However, the search for meaning could be traced as far back as early Greek and Medieval thinking. Early Greeks believed that work was an indispensable evil, which hindered free-thinking and autonomous living (Morse & Weiss, 1955; Yalom, 1980). It was the Greek philosopher, Leucippus, who first stated that work might act as an antecedent to determine man's reason for existence (Barnes, 1987). This inherent search for meaning later culminated in both the Lutheran and Calvinistic doctrines, where work was seen as a *vocation* through which one is obligated to execute charges [associated with the vocation] in order to serve the Christian deity and the greater community (Taylor, 1933). In essence, these ideas served as the catalyst for work to be seen as a *calling*, where man is called [by a deity] to perform a specific function within a society (Bellah et al., 1985). According to Bellah et al. (1985), work links an individual to the larger community, where each individual's calling contributes to the good of all mankind.

Through integrating these historical views on meaningfulness and work, Yalom (1980) states that the meaningfulness manifests in three orientations: (a) the search for meaning; (b) the experience of meaning; and (c) the meaning one attaches to events or objects (Yalom, 1980). However, researchers are in disagreement about whether the origins of meaningfulness are derived from internal (within the individual) (Baumeister & Vohs, 2002; May et al., 2004) or external (environmental) sources (Wrzesniewski, 2003). Through integrating these two ideals, meaningfulness consists out of (a) the meaning of work (Wrzesniewski et al., 1997) and (b) psychological meaningfulness (Kahn, 1990; May et al., 2004; Spreitzer, 1995). To understand the meaning of work and to formulate a concrete definition, one must concentrate

on the individuals' subjective experiences of the work they do (Bellah et al., 1985; England, 1991).

Bellah et al. (1985) define the meaning of work as the general level of importance an individual attaches to the subjective experience of work at a given time stamp. This general level of importance that work has in the life of an individual manifests in three distinct dimensions, whereby the individual views work either as a job, a career or a calling (Bellah et al., 1985; Wrzesniewski, 1997). Individuals who view *work as a job* are ensnared by the allure of the material rewards they receive from work. These individuals view work as a means to an end (Parry, 2006; Wrzesniewski et al., 1997; Wrzesniewski et al., 2003). Little satisfaction is derived from work-related activities (Parry, 2006). However, the material rewards gained are utilised to acquire resources needed to express ambitions outside of an occupational context (Parry, 2006; Wrzesniewski et al., 1997; Wrzesniewski et al., 2003).

Dissimilarly, people who view *work as a career* is concerned with occupational advancement, rather than just monetary reward (Parry, 2006; Peterson et al., 2009; Wrzesniewski et al., 1997). Here meaning is derived from the increased level of perceived power, influence and higher social status which advancement holds (Peterson et al., 2009; Wrzesniewski et al., 1997). Increased power and social status manifest in increased self-esteem (Wrzesniewski et al., 1997). Satisfaction and engagement depend on continuous advancement (Peterson et al., 2009). Frustration, disengagement and dissatisfaction occur when advancement slows (Lopper, 2007; Wrzesniewski et al., 1997). Research suggests that individuals who view work as a career, are happier than those who view work as a job, but less than those who view work as a calling (Dik & Duffy, 2008; Peterson et al., 2009).

Viewing *work as a calling* is an end to itself (Peterson et al., 2009; Wrzesniewski et al., 2003; Wrzesniewski et al., 1997). Viewing work as a calling implies the presence of a feeling that one was placed on earth to engage in these specific work-related tasks (Parry, 2006). Those who view work as a calling, engage in work as a result of the fulfilment they derive from engaging in these activities as opposed to financial gains (work as a job) and career advancement (work as a career) (Wrzesniewski et al., 1997). These individuals perceive their work to be their purpose in life whereby remuneration isn't necessarily required (Bellah et al., 1985; Davidson & Caddell, 1994).

Perceiving work as a calling has mutual benefits for the individual, the group and the organisation (Wrzesniewski et al., 2003). These benefits exist regardless of the type of occupation, position or organisation (Wrzesniewski et al., 2003). Higher levels of calling are associated with higher levels of organisational commitment (Cameron et al., 2003; Wrzesniewski et al., 2003); higher levels of zest (Peterson et al., 2009); greater work-role fit (Dik & Duffy, 2007); and greater levels of life satisfaction (Peterson et al., 2009). Individuals within similar occupations, with similar tenures and remuneration, can view work differently (Wrzesniewski et al., 1997). However, individuals within social occupations (e.g. counsellors, ministers, priests, social workers and psychologists) are more likely to experience their work as a calling rather than a career or job (Davidson & Caddell, 1994; Wrzesniewski et al., 1997).

The meaning of work is clearly visible in occupations where individuals are constantly interacting with various social systems, since the need for socialisation, influence and affiliation largely contributes to the experience of meaning of work (Bellah et al., 1985; MOW, 1981). Registered I/O psychologists spend 88% of their time interacting with various social systems within an organisational context (Benjamin & Louw-Potgieter, 2008; Meyers, 2007). It is presumed that I/O psychologists would experience their work as a calling, though there is no literature available to reference how these individuals view the meaning of their work.

The meaning of work refers to the presence of psychological meaningfulness (Steger, Frazier, Oishi, & Kaler, 2006). The presence of psychological meaningfulness refers to the subjective sense that one's work is meaningful. Kahn (1990, p. 703-704) defines psychological meaningfulness as "a feeling that one is receiving a return on investment of one's self in a currency of physical, cognitive or emotional energy". Psychological meaningfulness occurs when individuals feel useful and valuable and feel that they are making a difference (Kahn, 1990). Given that psychological meaningfulness reflects a sense of purpose or personal connection to work (Spreitzer, 1995), it is expected that individuals with a calling orientation will experience more meaning in their work than those with job or career orientations. Furthermore, employees who spend time on activities that they want to spend time on and who experience work-role fit, will experience more psychological meaningfulness, which will contribute to higher levels of work engagement (May et al., 2004; Olivier & Rothmann, 2007). It should be noted that although psychological meaningfulness is related to, and has

been shown to predict work engagement (see Kahn, 1990; May et al., 2004), it is also regarded as a separate construct (Peterson et al., 2005).

Work engagement

Work engagement has emerged as an important topic in positive industrial/organisational psychology in recent years (May et al., 2004; Schaufeli & Bakker, 2004; Schaufeli & Bakker, 2008; Simpson, 2008). However, according to Macey and Schneider (2008), recent empirical research reveals little consideration for testing the fundamental theory of the construct (see May et al., 2004; Olivier & Rothmann, 2007; Salanova, Agut, & Peiro, 2005 for exceptions). Empirical research confirmed the relationship between work engagement and organisational outcomes (e.g. organisational commitment, turnover intention, productivity, motivation, job resources, and burnout) (e.g. Bakker, Demerouti, & Schaufeli, 2005; Hakanen, Bakker, & Schaufeli, 2006; Harter, Schmidt & Hayes, 2002; Schaufeli & Bakker, 2004). Conceptually, these employee attitudes relating to the aforementioned organisational outcomes do not reflect the factual theoretical notion of work engagement (Macey & Schneider, 2008), but rather the psychological conditions of engagement (Kahn, 1990; May et al., 2004; Olivier & Rothmann, 2007). Therefore, a thorough theoretical understanding of engagement is needed to ensure the success of research and interventions (Macey & Schneider, 2008).

Theoretically, work engagement is grounded in desire theory (Sirgy & Wu, 2009). This theory focuses on need gratification rather than the pursuit of pleasure to increase happiness. According to Griffin (1986), desire theory holds that happiness is a matter of getting what you want in the form of truth, illumination and purity. Gratification is enhanced by engaging in activities that generate flow experience (Csikszentmihalyi, 1999). However, the concept of flow (Csikszentmihalyi, 1999) focuses heavily on the cognitive component of engagement (i.e. absorption), and does not include the physical and emotional component thereof.

Three main approaches to work engagement exist, namely state, trait and behavioural engagement (Macey & Schneider, 2008; Simpson, 2008). State engagement (which is relevant to this study) can be defined as the extension of oneself to a work role categorised by feelings of absorption, satisfaction, energy, commitment and involvement in one's work (Macey & Schneider, 2008). Work engagement exists when one feels physically, emotionally and cognitively attached to a work role (Kahn, 1990; May et al., 2004; Olivier & Rothmann,

2007). The experience of the mentioned attachment to one's work is facilitated by the opportunity to apply one's signature strengths in a work situation (Peterson & Seligman, 2004). This opportunity to express one's strengths leads to greater work-role fit, which leads to work engagement (May et al., 2004; Olivier & Rothmann, 2007).

Schaufeli et al. (2002, p. 74) define work engagement as "... a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. Vigour is characterized by high levels of energy and mental resilience while working. Dedication refers to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work". The Utrecht Work Engagement Scale (UWES) was developed to measure the three components of work engagement (Schaufeli et al., 2002). Unfortunately, at least one UWES item (e.g., *'I find the work I do full of meaning and purpose'*) measures the psychological condition of meaningfulness, which might contribute to work engagement rather than the construct itself (see Kahn, 1990; May et al., 2004).

I/O psychologists exert some of the highest levels of work engagement in the United States, alongside other occupations categorised by similar task variety, complexity and autonomy. This might be attributable to the experience of work-role fit and/or job enrichment (Kahn, 1990; May et al., 2004; Olivier & Rothmann, 2007). A thorough literature review on the work engagement of I/O psychologists within South Africa was conducted, with no feasible results. Therefore, research is needed regarding the engagement of I/O psychologists.

Work activities of I/O psychologists

According to Benjamin and Louw-Potgieter (2008), much research has been done on the state and relevance of I/O psychology, but very little empirical research has been done pertaining to the work activities of this group. Benjamin and Louw-Potgieter (2008) stated that the work activities of the I/O psychologist are governed by both the Health Professions Act, No. 56 of 1974 and the scope of practice set out by the Health Professions Council of South Africa (HPCSA, 2009).

Even though the scope of practice is open to include any activity which one has been formally trained and supervised in, there are certain activities central to the 'classical role' of the I/O psychologist (Barnard & Fourie, 2007; Benjamin & Louw-Potgieter, 2008). Benjamin and Louw-Potgieter (2008) argue that the work activities an I/O psychologist engages in can be classified into six dimensions, namely (a) psychological assessment (where 22% of their time is being spent on this activity); (b) therapy and counselling (6%); (c) human resource management activities (12%); (d) other human resource administrative activities (12%), (e) training (9%); and (f) intervention and consulting activities (34%).

Bellah et al. (1985) and Wrzesniewski et al. (1997) suggest that the value the I/O psychologist places on these work activities might have an impact on the meaning of work. Therefore, it is important to investigate the impact of these work activities on meaning of work, psychological meaningfulness and work engagement within different organisations.

In the literature study the constructs of work-role fit, meaningfulness (meaning of work and psychological meaningfulness) and work engagement have been defined and the relationships between them described. Figure 1 proposes a conceptual model of the relationships between these constructs which will be used in this study.

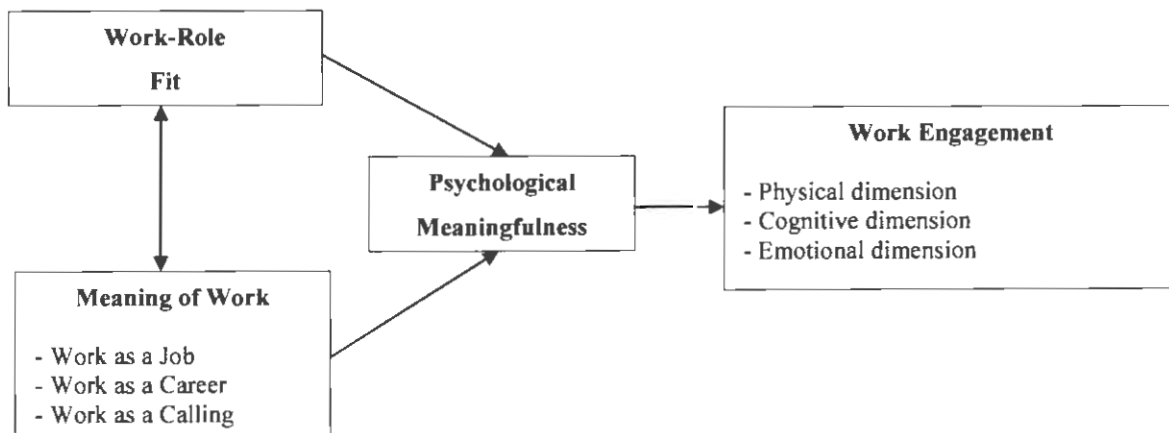


Figure 1. Conceptual model for the research

Based on the problem statement and literature review, the following hypotheses are formulated:

H1: I/O psychologists in South African view their work as a calling.

- H2: I/O psychologists in South African spend more time on human resource related activities than on activities relating to psychology.
- H3: Work-role fit predicts psychological meaningfulness and work engagement of I/O psychologists in South Africa.
- H4: Work-role fit mediates the relationship between the meaning of work and psychological meaningfulness.
- H5: Work-role fit mediates the relationship between the meaning of work and work engagement.
- H6: Psychological meaningfulness mediates the relationship between work-role fit and work engagement.

METHOD

Research design

A cross sectional survey design was used to reach the research objective (Shaughnessy, Zechmeister, & Zechmeister, 2003). Surveys were used to obtain information about the respondents' levels of work-role fit, the meaning of work, psychological meaningfulness and work engagement. A correlational approach was followed.

Participants and procedure

A convenience sample ($n = 106$) from the entire population was drawn (response rate = 9,42%). An electronic version of the questionnaire was e-mailed to participants. Table 1 provides an overview of the characteristics of the participants.

According to Table 1, the majority of the participants were Afrikaans speaking (67%), white (88%), females (54,7%) between the ages of 25 and 30 (26,4%). The majority of the participants are registered as I/O psychologists for between 0 and 5 years (44,3%), employed within Gauteng (66%) and working in the private sector (45,3%). Most of the participants hold a master's degree (65,1%).

Table 1

Characteristics of Participants (n = 106)

Item	Category	Frequency	Percentage (%)
Gender	Male	48	45.30
	Female	58	54.70
Age	25-30 years	28	26.40
	31-35 years	18	17.00
	36-40 years	21	19.80
	41-45 years	9	8.50
	46-50 years	12	11.30
	51-55 years	9	8.50
	56 years and older	9	8.50
Race	White	92	86.80
	African	8	7.50
	Coloured	4	3.80
	Indian	2	1.90
Language group	Afrikaans	71	67.00
	English	30	28.30
	Xhosa	1	0.90
	Zulu	1	0.90
	Tsonga	1	0.90
	South Sotho	2	1.90
Province	Gauteng	70	66.00
	Free State	10	9.40
	Mpumalanga	4	3.80
	North West	10	9.40
	Northern Cape	2	1.90
	Eastern Cape	3	2.80
	Western Cape	7	6.60
Educational level	Masters degree	69	65.10
	Doctoral degree	28	26.40
	Post-doctoral degree	2	1.90
	Professoriate	7	6.60
Type of employment	Higher education	31	29.20
	Private sector	48	45.30
	Public sector	10	9.40
	Private consultation	17	16.00
Number of years registered	0-5 years	47	44.30
	6-10 years	27	25.50
	11-15 years	12	11.30
	16-20 years	4	3.80
	21-25 years	7	6.60
	26-30 years	5	4.70
	31-35 years	3	2.80
36 years and longer	1	0.90	

Measuring battery

The following questionnaires were used in the empirical study:

The *Work-role Fit Scale* (WRFS) was used to measure work-role fit. Work-role fit is measured by averaging four items from May et al. (2004) which directly measured individuals' perceived fit with their jobs and self-concept. For all items, a 5-point agreement-disagreement Likert scale varying from 1 (*never*) to 5 (*always*), was used. Some of the items included in this measure are "My job 'fits' how I see myself"; "I like the identity my job gives me"; and "My job 'fits' how I see myself in the future". May et al. (2004) found the internal consistency of the WRFS in a large insurance company is represented by a Cronbach alpha coefficient of 0,92. Olivier and Rothmann (2007) confirmed the reliability of the WRFS in a petrochemical company, where by the internal consistency was represented by a Cronbach alpha coefficient of 0,90.

The *Work-Life Questionnaire* (WLQ) developed by Wrzesniewski et al. (1997), was utilised in order to determine the levels of meaning (Meaning of Works) I/O psychologists associate with their work. According to Wrzesniewski et al. (1997), the WLQ is a self-report measure which aims at classifying an individual's orientation to work into three main categories, namely (a) work as a job; (b) work as a career; or (c) work as a calling. The questionnaire is divided into two parts, the first contains a set of three paragraphs representing the three main Meaning of Works whereby the respondent is encouraged to rate his level of association with each paragraph on a scale of 1 (*not at all*) to 4 (*completely*). The second part consists of a set of 18 items to substantiate the respondent's position on the first part of the questionnaire. The items were also rated on a Likert scale varying from 1 (*not at all*) to 4 (*completely*). Some of the items included on the second part are "My primary reason for working is financial"; and "I find my work rewarding". The results of this questionnaire provide an indication of where on the job-career-calling continuum the respondent falls and to measure his current levels of job satisfaction. According to Smith, Kain, Yugo, and Gillespie (in press), the internal consistency of the WLQ within a sample of undergraduate psychology students is represented by Cronbach alpha coefficients which range from 0,47 to 0,77 on the various subscales: (a) on the job subscale 0,65; (b) on the career subscale 0,47; and (c) on the calling subscale 0,77.

The *Psychological Meaningfulness Scale* (PMS) is used to measure psychological meaningfulness by averaging six items drawn from Spreitzer (1995) and May et al. (2004). For all items, an agreement-disagreement Likert scale varying from 1 (*never*) to 5 (*always*) was used. These items measure the degree of meaning that individuals discovered in their work-related activities (e.g. "The work I do on this job is very important to me"; and "My job activities are personally meaningful to me"). May et al. (2004) found the internal consistency of the PMS in a large insurance company is represented by a Cronbach alpha coefficient of 0,90. Olivier and Rothmann (2007) confirmed the reliability of the PMS in a petrochemical company, whereby the internal consistency is represented by a Cronbach alpha coefficient of 0,92.

The *Work Engagement Scale* (WES) which was developed by May et al. (2004), was adapted and used to measure work engagement. For all items, an agreement-disagreement Likert scale varying from 1 (*never*) to 5 (*always*) is used. The items reflect each of the three components of Kahn's (1990) conceptualisation of work engagement, namely cognitive ("Time passes quickly when I perform my job"); emotional ("I really put my heart into my job"); and physical engagement ("I take work home to do"). Olivier and Rothmann (2007) found a one-factor engagement model within a petrochemical company consisting of cognitive, emotional and physical engagement ($\alpha = 0,72$), which is consistent with findings by May et al. (2004) in a large insurance firm, where fewer items were used.

Finally, as part of the biographical questionnaire a self-developed inventory was used to determine the actual amount of time the respondent spends on and the desired time the participant wants to spend on six broad categories of work (see Benjamin & Louw-Potgieter, 2008). Benjamin and Louw-Potgieter (2008) propagated that I/O psychologists are actively engaging in (a) psychological assessment; (b) therapy and counselling; (c) human resource management activities; (d) human resource administration; (e) training and development; and (f) interventions and consultations. Based on this, participants were asked to indicate both their actual- and desired time spent on these six broad categories of work.

Procedure

A cover letter explaining the purpose and emphasising the confidentiality of the research project accompanied the questionnaire. The researcher frantically made contact with Society

of Industrial and Organisational Psychology in South Africa (SIOPSA) in order to request access to their member list, whereby no response was received. The researcher made appointments with various leaders in the field of I/O psychology to introduce them to the topic and to ask their help with regards to tracking down respondents. A list of all the registered I/O psychologists was obtained from the HPCSA. Initially a random sample of 300 was drawn with a response rate of 0,013%. As an alternative, a convenience sample ($n=106$) was drawn. In their study, Benjamin and Louw-Potgieter (2008) drew a sample of 129 respondents with full access to the SIOPSA's member database. Participation in the project was voluntary, whereby respondents had the option to withdraw at any time. During October through November 2009, e-mails were sent out to the respondents inviting them to complete the questionnaire. The raw data was captured and converted to an SPSS dataset.

Statistical analysis

The statistical analysis was carried out with the SPSS program (SPSS Inc., 2009). Descriptive statistics in terms of means, standard deviations, skewness and kurtosis was used in order to analyse the data. Exploratory factor analyses and Cronbach alphas were used to determine the construct validity and reliability of the measuring instruments. Pearson correlation coefficients were used to specify the relationships between the variables. The cut-off point for statistical significance was set at $p < 0,01$ (Field, 2009). Effect sizes were used to decide on the practical significance of findings (Field, 2009). A cut-off point of 0,30 (medium effect) was set for the practical significance of correlation coefficients (Cohen, 1992).

Canonical correlation was used to determine the relationships between the constructs. The goal of canonical correlation is to analyse the relationship between two sets of variables (Tabachnick & Fidell, 2001). Multiple regression analyses were used in order to investigate whether work-role fit and meaning of work predict psychological meaningfulness and whether these predict engagement.

RESULTS

Exploratory factor analyses

Exploratory factor analyses were undertaken to investigate the underlying factor structure of the measuring instruments. Firstly, principal component analyses were used to assess the

factorability of the items of the various scales, and to determine the number of factors in each scale. Eigenvalues (> 1) and the scree plot were used to determine the number of factors in each scale. Secondly, a principal axis factor analysis with a direct oblimin rotation was used in cases where scales had more than two factors.

A principal component analysis was conducted on the four items of the WRFS. The Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0,75, which indicates that the items were factorable (Field, 2009). Bartlett's test of sphericity showed to be highly significant ($\chi^2(6) = 183,30; p < 0,05$). The scale produced communalities which were all higher than the suggested 0,30. A principal component analysis showed that one factor (eigenvalue = 2,76) could be extracted. The component loadings ranged from 0,79 to 0,88. The factor (labelled *Work-Role Fit*) explained 69,05% of the total variance of the scale.

A principal component analysis was conducted on the 21 items of the Work-Life Questionnaire. The Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0,74, which indicates that the items were factorable (Field, 2009). Bartlett's test of sphericity showed to be highly significant ($\chi^2(210) = 933,49; p < 0,05$). The scale produced communalities which were all higher than the suggested 0,30. The scree plot indicated that two factors (with eigenvalues of 5,73 and 2,51 respectively) could be extracted. Factor 1 and Factor 2 explained 30,18% and 13,21% of the total variance respectively. Factor 1 represents the Job/Calling Orientation, whereas Factor 2 represents the Career Orientation. A third factor was proposed by Wrzesniewski et al. (1997) namely a Job Orientation. Wrzesniewski et al. (1997) proposed work as a Job and work as a Calling to be on a continuum. Items related to a Calling Orientation were reverse coded for the purposes of creating a Job/Calling Orientation. Therefore, a high score on the dimension indicates a Calling Orientation, whilst a low score indicates a Job Orientation.

A principal component analysis was conducted on the five items of the PMS. The Kaiser-Meyer-Olkin measure of sampling adequacy revealed a value of 0,86, which indicates that the items were factorable (Field, 2009). Bartlett's test of sphericity showed to be highly significant ($\chi^2(10) = 244,43; p < 0,05$) The scale produced communalities which were all higher than the suggested 0,30. The factor loadings of the principle component analysis showed that only one factor had an eigenvalue larger than one (eigenvalue = 3,33). The factor

explained 66,68% of the total variance of the scale. The factor was labelled Psychological Meaningfulness.

A principal component analysis was conducted on the WES. In order to examine the factorability of the 17-item WES, a Kaiser-Meyer-Olkin measure of sampling and a Bartlett's test of sphericity were conducted. Firstly, the Kaiser-Meyer-Olkin measure of sampling adequacy revealed a 0.89 loading which is well above Field's (2009) suggested 0.60. Secondly, Bartlett's test of sphericity showed to be highly significant ($\chi^2(136) = 1260,77; p < 0,05$). The scale produced communalities which were all higher than the suggested 0,30, with the exception of three values. The principle component analysis proposed a one factor model for Work Engagement with an eigenvalue of 8,81. Factor loadings ranging from 0,77 to 0,87 were present. The one-factor model explained 66,68% of the total variance of Work Engagement.

Descriptive statistics and correlations

The descriptive statistics (means, standard deviations, and Cronbach alpha coefficients) and Pearson's correlations of the measuring instruments are reported in Table 2.

Table 2 shows that all five scales are sufficiently reliable ($\alpha > 0,70$) with alpha values varying from 0,80 to 0,93 (Nunnally & Bernstein 1994).

The mean score on Work-Role Fit (1,71) indicates that there is a close relationship between the I/O psychologists' self-concept and the work which they are engaged in. The Job/Calling Orientation (3,03) indicates that I/O psychologists view their work as a Calling. The majority of the participants viewed their work as a *calling* (50% in accordance with a frequency analysis). This implies that these participants feel that they are placed on earth to be I/O psychologists. A total of 16% of the respondents viewed their work as a *career*. These I/O psychologists work in order to move up in the organisation's hierarchy and derive meaning from the social status and power associated with higher levels in the hierarchy. Finally, 6,6% of the participants viewed their work as a *job*. These individuals are only engaging in their work for financial reasons. It would seem that I/O psychologists experience both Psychological Meaningfulness in their work (1,95) and Work Engagement (1,96). Therefore, *Hypothesis 1* is accepted.

Table 2

Descriptive Statistics, Cronbach Alpha Coefficients and Pearson Correlations for Work-Role Fit, Meaning of Work, Psychological Meaningfulness and Work Engagement

Item	Mean	SD	α	1	2	3	4	5	6	7	8	9	10
1 Work-Role Fit	1,71	0,62	0,87	-	-	-	-	-	-	-	-	-	-
2 Psychological Meaningfulness	1,95	0,78	0,85	0,89*	-	-	-	-	-	-	-	-	-
3 Work Engagement	1,96	0,63	0,93	0,74*	0,70*	-	-	-	-	-	-	-	-
4 Job/Calling Orientation	3,03	0,56	0,87	-0,74*	-0,69*	-0,08	-	-	-	-	-	-	-
5 Career Orientation	2,44	0,91	0,80	-0,41*	-0,35*	-0,19*	0,29*	-	-	-	-	-	-
6 Difference Psychological Assessment	-1,36	13,95	-	-0,11	-0,04	0,19	-0,10	0,05	-	-	-	-	-
7 Difference Therapy/Counseling	-4,08	14,35	-	-0,15	-0,25*	0,27*	0,13	0,03	0,19	-	-	-	-
8 Difference HR Management	4,32	12,52	-	0,23*	0,21*	-0,17	-0,21*	-0,16	-0,33*	-0,22*	-	-	-
9 Difference HR Administration	5,25	9,95	-	0,14	0,16	0,03	-0,08	-0,10	-0,19	-0,30*	0,07	-	-
10 Difference Training/Development	1,84	11,06	-	0,05	0,12	-0,33*	0,11	0,16	0,00	-0,37*	-0,24	-0,20*	-
11 Difference Intervention/Consultation	-6,49	13,16	-	-0,18	-0,15	-0,75*	0,15	-0,02	-0,25*	0,09	-0,26*	-0,14	-0,12

Note: Time Difference = Actual time spending – Desired time spending

* $p < 0,05$ – statistically significant

$r > 0,30$ – practically significant (medium effect)

$r > 0,50$ – practically significant (large effect)

Regarding the *actual time* spent on the six activities, the results show the following mean percentages: Psychological Assessment = 20,29% ($SD = 22,79$); Therapy and Counselling = 12,48% ($SD = 11,51$); HR Management = 17,35% ($SD = 17,91$); HR Administration = 11,22% ($SD = 14,68$); Training and Development = 18,07% ($SD = 20,26$); and Interventions and Consulting = 19,80% ($SD = 16,80$). Regarding the *desired time* spent on the six activities the results show the following mean percentages: Psychological Assessment = 21,65% ($SD = 18,54$); Therapy and Counselling = 16,57% ($SD = 16,03$); HR Management = 13,03% ($SD = 13,58$); HR Administration = 5,96% ($SD = 9,38$); Training and Development = 16,23% ($SD = 17,19$); and Intervention and Consulting = 26,28% ($SD = 17,20$).

This implies that I/O psychologists want to spend more time on Psychological Assessment (-1,36); Therapy and Counselling (-4,08); as well as Interventions and Consulting (-6,49). I/O psychologists want to spend less time on HR Management (4,32); HR Administration (5,25); as well as Training and Development (1,84). It seems that I/O psychologists want to spend less time on human resource activities than those relating to psychology. Therefore, *Hypothesis 2* is accepted.

The following statistically and practically significant correlations were found: Work-Role Fit and Psychological Meaningfulness ($r = 0,89$; $p < 0,05$; large effect); Work-Role Fit and Work Engagement ($r = 0,74$; $p < 0,05$; large effect). Therefore, *Hypothesis 3* is accepted. Furthermore, Work-Role Fit and Job/Calling Orientation ($r = -0,74$; $p < 0,05$; large effect). Psychological Meaningfulness and Work Engagement correlated statistically and practically significantly ($r = 0,70$; $p < 0,05$; large effect). Psychological Meaningfulness correlated statistically and practically significantly negatively with Job/Calling Orientation ($r = -0,69$; $p < 0,05$; large effect). Work Engagement correlated statistically significantly negatively with the discrepancy between actual and desired time on Interventions and Consultations ($r = -0,75$; $p < 0,05$; large effect).

Work-Role Fit correlated statistically and practically significantly with a Career Orientation towards work ($r = 0,41$; $p < 0,05$; medium effect). Psychological Meaningfulness was statistically and practically significantly and negatively related to Career Orientation ($r = -0,35$; $p < 0,05$; medium effect). Work Engagement correlated statistically and practically significantly negatively with the discrepancy between actual and desired time on Training and Development ($r = -0,33$; $p < 0,05$; medium effect). The discrepancy between actual and

desired time on Psychological Assessment correlated statistically and practically significantly negatively with the discrepancy between actual and desired time on HR Management ($r = -0,33$; $p < 0,05$; medium effect). The discrepancy between the actual and desired time on Therapy and Counselling correlated statistically and practically significantly negatively with HR Administration activities ($r = -0,30$; $p < 0,05$; medium effect). The discrepancy between the actual and desired time on Therapy and Counselling correlated statistically and practically significantly negatively with Training and Development ($r = -0,37$; $p < 0,05$; medium effect).

Multivariate statistics

The relationship of the differences between actual and desired time spent on the six broad work activities, Meaning of Work (Job/Calling versus Career), and Work-Role Fit, was tested with canonical analysis. Shown in Table 3 are correlations between the variables and canonical variates; and standardised canonical variate coefficients. Within-set variance accounted for the canonical variates (percent of variance), redundancies and canonical correlations.

The first canonical correlation was 0,42 (18% overlapping variance). The other two canonical correlations were 0,31 and 0,19 with all three canonical correlations included $F_{(18, 274, 84)} = 1,91$, $p < 0,01$. The second F-test ($F_{(10, 196)} = 1,39$, $p > 0,05$) and third F-test ($F_{(4, 99)} = 0,89$, $p > 0,05$) were not statistically significant. In line with the recommendation of Tabachnick and Fidell (2001), only canonical correlations higher than 0,30 are interpreted here. The first canonical variate accounted for the significant relationship between the two sets of variables.

With a cut-off correlation of 0,30, the variables in the work categories set that correlated with the first canonical variate were Difference: Psychological Assessment (-0,56) and Difference: Training and Development (0,64). Among the outcomes set, Work-Role Fit (0,53) correlated with the first canonical variate.

Next, a series of multiple regression analyses were performed to test whether the Work-Role Fit mediates the relationship between the Meaning of Work (i.e. Job/Calling and Career) and Psychological Meaningfulness. Baron and Kenny (1986) recommend three steps in order to test for mediation. According to these authors, beta coefficients of different regression

equations must be compared. Firstly, the mediator should be predicted by the independent variable.

Table 3

Results of the Canonical Analysis: Work Activities, Meaning of Work, and Work-Role Fit

	First canonical variate	
	Correlation	Coefficient
Antecedents Set		
Difference: Psychological Assessment	-0.56	-1.51
Difference: Therapy/Counselling	-0.19	-1.15
Difference: HR Management	0.11	0.97
Difference: HR Administration	0.19	-0.60
Difference: Training/Development	0.64	-0.29
Difference: Intervention/Consulting	-0.28	-1.20
Percent of Variance	2.63	
Redundancy	14.89	
Outcomes Set		
Work-Role Fit	0.53	1.52
Job/Calling Orientation	0.09	1.06
Career Orientation	0.19	0.52
Percent of Variance	10.87	
Redundancy	1.93	
Canonical correlation	0.42	

Secondly, the dependent variable should be predicted by the mediator and the independent variable; and lastly, the dependent variable should be regressed on the independent variable, controlling for the mediator. If all steps prove significant, perfect mediation holds when, controlling for the mediator, the independent variable does not predict the dependent variable.

Firstly, to test whether Work-Role Fit is predicted by the Meaning of Work, a multiple regression analysis was carried out with Work-Role Fit (as measured by the WRFS) as dependent variable and the Meaning of Work (as measured by the WLQ) as dependent variable. The results showed that the Meaning of Work (i.e. Job/Calling Orientation)

predicted 59% of the variance in Work-Role Fit ($F_{(2, 103)} = 72,71, p < 0,01$). The regression coefficients of the Job/Calling Orientation ($\beta = -0,67, p < 0,01$) and the Career Orientation ($\beta = -0,22, p < 0,01$) were statistically significant. The first requirement for mediation was therefore satisfied.

Second, to test whether Psychological Meaningfulness is predicted by Work-Role Fit, a multiple regression analysis was carried out with Psychological Meaningfulness (as measured by the PMS) as dependent variable and Work-Role Fit (as measured by the WRFS) as independent variable. The results showed that Work-Role Fit predicted 79% of the variance in Psychological Meaningfulness ($F_{(1, 104)} = 379,60, p < 0,01$). The regression coefficient of Work-Role Fit was statistically significant ($\beta = 0,89, p < 0,01$). Furthermore, Table 4 shows the results of a multiple regression analysis with Psychological Meaningfulness (as measured by the PMS) as dependent variable and Meaning of Work (as measured by the WLQ) in step 1 and Work-Role Fit (as measured by the WRFS) in step 2 as independent variables.

Table 4

Regression Analyses with Meaning of Work and Work-Role Fit as Independent Variables and Psychological Meaningfulness as Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
	B	SE	Beta					
Step 1						50,66*	0,70	0,49
(Constant)	19,909	1,22		16,30	0,00			
Job/Calling Orientation	-0,24	0,03	-0,64	-8,70	0,00*			
Career Orientation	-0,15	0,06	-0,17	-2,35	0,02*			
Step 2						125,99*	0,89	0,78
(Constant)	1,703	1,73		0,98	0,33			
Job/Calling Orientation	-0,03	0,03	-0,07	-1,07	0,29			
Career Orientation	0,01	0,04	0,01	0,26	0,79			
Work-Role Fit	0,84	0,07	0,84	11,83	0,00*			

* $p < 0,05$ – statistically significant

Table 4 shows that Meaning of Work (Job/Career and Calling) predicted 49% of the variance in Psychological Meaningfulness ($F_{(2, 103)} = 50,66, p < 0,01$). The regression coefficients of

Job/Calling Orientation and Career Orientation were statistically significant ($\beta = 0,89, p < 0,01$). Therefore, the second condition for mediation was satisfied. Table 4 also shows that the independent variables (Job/Calling Orientation and Career Orientation) and mediator (Work-Role Fit) predicted 78% of the variance in Psychological Meaningfulness ($F_{(3, 102)} = 125,99, p < 0,01$). However, only the regression coefficient of the Work-Role Fit was statistically significant in the last step of the regression analysis ($\beta = 0,84, p < 0,01$). It can be concluded that Work-Role Fit mediated the relationship between Meaning of Work and Psychological Meaningfulness. Therefore, *Hypothesis 4* is accepted.

A multiple regression analysis with Work Engagement (as measured by the WES) as a dependent variable; and Work-Role Fit (as measured by the WRFS); Job/Calling Orientation and Career Orientation (as measured by the WLQ); and Psychological Meaningfulness (as measured by the PMS) as independent variables; was subsequently carried out. The results showed that Work-Role Fit, Meaning of Work, and Psychological Meaningfulness predicted Work Engagement statistically significantly ($F_{(4, 100)} = 45,08, p < 0,01; R^2 = 0,64$). Only the regression coefficient of Job/Calling Orientation was statistically significant in the model ($\beta = -0,45, p < 0,01$). Psychological Meaningfulness was not a statistically significant predictor when it was entered into the regression model ($\Delta F_{(1, 100)} = 1,26, p > 0,05$).

Next, a series of multiple regression analyses were performed to test whether Work-Role fit mediates the relationship between Meaning of Work (i.e. Job/Calling and Career) and Work Engagement. First, the previous results already showed that Work-Role Fit is predicted by Meaning of Work. Secondly, to test whether Work Engagement is predicted by Work-Role Fit, a multiple regression analysis was carried out with Work Engagement as dependent variable and Work-Role Fit as independent variable. The results showed that the Work-Role Fit predicted 55% of the variance in Work Engagement ($F_{(1, 103)} = 124,26, p < 0,01$). The regression coefficient of Work-Role Fit was statistically significant ($\beta = 0,74, p < 0,01$). Furthermore, Table 5 shows the results of a multiple regression analysis with Work Engagement as dependent variable and Meaning of Work in step 1 and Work-Role Fit in step 2 as independent variables.

Table 5

Regression Analyses with Meaning of Work and Work-Role Fit as Independent Variables and Work Engagement as Dependent Variable

Model	Unstandardised		Standardised	t	p	F	R	R ²
	Coefficients		Coefficients					
	B	SE	Beta					
Step 1						69.75*	0.76	0.58
(Constant)	78,16	3,87		20.21	0,00			
Job/Calling Orientation	-0.91	0,09	-0.72	-10,66	0.00*			
Career Orientation	-0.35	0,20	-0.12	-1,78	0.08			
Step 2						59.52*	0.80	0.64
(Constant)	48.56	8,01		6.06	0,00			
Job/Calling Orientation	-0.58	0,11	-0.45	-5.07	0,00*			
Career Orientation	-0.08	0,20	-0,03	-0.41	0.68			
Work-Role Fit	1.38	0,33	0,39	4.13	0.00*			

* $p < 0.05$ – statistically significant

Table 5 shows that Meaning of Work (Job/Career and Calling) predicted 58% of the variance in Work Engagement ($F_{(2, 102)} = 69,75, p < 0,01$). The regression coefficient of Job/Calling Orientation was statistically significant ($\beta = -0,72, p < 0,01$). Therefore, the second condition for mediation was satisfied. Table 5 also shows that the independent variables (Job/Calling Orientation and Career Orientation) and mediator (Work-Role Fit) predicted 80% of the variance in Work Engagement ($F_{(3, 11)} = 59,52, p < 0,01$). The regression coefficients of Job/Calling Orientation ($\beta = -0,45, p < 0,01$) and Work-Role Fit ($\beta = 0,39, p < 0,01$) were statistically significant in the last step of the regression analysis. It can be concluded that Work-Role Fit mediated the relationship between Meaning of Work and Work Engagement. Therefore, *Hypothesis 5* is accepted.

A final set of multiple regressions was performed to test whether the Work-Role Fit mediates the relationship between Psychological Meaningfulness and Work Engagement. Work-Role Fit predicts 54,7 % of the total variance in Work Engagement ($F_{(1, 103)} = 124,26; p < 0,01$). The results indicated that Work-Role Fit ($\beta = -0,74, p < 0,01$) was a statistically significant predictor of Work Engagement in step 1. Although Work-Role Fit was a statistically significant predictor of Work engagement, Work-Role Fit remained significant when Psychological Meaningfulness was entered into the regression. Therefore, Psychological

Meaningfulness does not mediate the relationship between Work-Role Fit and Work Engagement in a sample of I/O psychologists. Therefore, *Hypothesis 6* is rejected.

DISCUSSION

The aim of this study was to investigate the relationships between the work-role fit, meaningfulness, and work engagement of I/O psychologists in South Africa. Exploratory factor analyses and alpha coefficients indicated that all the questionnaires used in this study were valid and reliable. The results showed that the majority of the I/O psychologists view their work as a calling. I/O psychologists want to spend less time on activities relating to the field of human resource management and administration, and more time on psychological assessment, counselling, and intervention. Work-role fit mediated the relationship between a calling orientation and psychological meaningfulness. Work-role fit partially mediated the relationship between a calling orientation and work engagement.

Exploratory factor analyses showed a one-factor model for work-role fit and psychological meaningfulness which is in line with the findings of May et al. (2004), Olivier and Rothmann (2007). Furthermore a two-factor model for meaning of work was found. The first factor represented a job and calling orientation on a continuum, while the second factor structure produced the career orientation (Wrzesniewski et al., 1997). The three factor structure of Work Engagement was not confirmed. The WES produced a one-factor model for total work engagement. This implies that people who are emotionally-, cognitively- and physically betrothed to their work, experience work engagement. This is in line with Olivier and Rothmann (2007) and Van der Colff (2006) who also found a one-factor model of work engagement. All the questionnaires produced high Cronbach alpha values ranging from 0,80 to 0,93. This implies that the surveys used were reliable in the sample of I/O psychologists.

The results showed that I/O psychologists' experienced high levels of work-role fit. This implies that the respondents viewed a direct correlation between their self-concepts and the work they are engaging in. There are two explanations for the high scores obtained by I/O psychologists on work-role fit. First, I/O psychologists are carefully selected before their honours as master's studies. Second, before registering as I/O psychologist, candidates have to complete a 12-month internship in I/O psychology. These selection and socialisation activities probably increase their eventual work-role fit (LeBon, 2001).

Despite the high scores on work-role fit, the results showed that I/O psychologists are spending a large proportion of their time on human resource activities (including human resource management, human resource administration, and training and development). It was found that I/O psychologists want to spend more time on those activities relating to I/O psychology (including psychological assessment, therapy and counselling, and interventions and consultation) and less time on activities relating to human resource management.

A discrepancy was found between the actual and desired time I/O psychologists spend on their work activities. On average I/O psychologists spent their time (in order of a high to a low percentage) on psychological assessment (20,29%); training and development (18,07%); human resource management (17,35%); intervention and consulting (16,57%); therapy and counselling (12,48%); and human resource administration (11,22%). However, on average they would like to spend their time (in order of a high to a low percentage) on intervention and consulting (26,28%); psychological assessment (21,65%); therapy and counselling (16,57%); training and development (16,23%); human resource management (13,03%); and human resource administration (5,96%). It is interesting to note that I/O psychologists spend about 29% of their time on human resource management and administration, while they would like to spend only 19% of their time on these activities. In contrast, Benjamin and Louw-Potgieter (2008) found that I/O psychologists spend (in order of a high to a low percentage) 34% of their time on intervention and consulting activities, 22% on psychological assessment, 12% on human resource management activities, 12% on human resource administration, 9% on training and development, and 6% on therapy and counselling. These findings are substantiated by Barnard and Fourie (2007) who stated that I/O psychologists want to spend more time on activities relating to pure psychology. The canonical analysis showed that higher work-role fit was experienced by I/O psychologists who spend more time on training and development than they would like to, but who wants to spend more time on psychological assessment than what they are currently spending.

The majority of the I/O psychologists viewed their work as a calling. I/O psychologists believe their work to contribute to a greater cause. This might be attributable to the fact that I/O psychologists spend the majority of their time engaging in the various social systems of the organisation. I/O psychologist facilitates the development from dysfunctional behaviour to 'normal' or optimal development (LeBon, 2001), whereby the calling orientation might be attributable to knowing that they have an impact on the lives of others. This is in line with

Bellah et al. (1985) hypothesis that individuals in helping professions perceive their work to be Callings. Furthermore, I/O psychologists experienced their work to be psychologically meaningful and showed high levels of work engagement.

The Pearson correlations in this study showed that work-role fit is strongly related to a calling orientation towards work, psychological meaningfulness and work engagement. Work-role fit was moderately related to a career orientation. Psychological meaningfulness was also strongly related to a calling orientation towards work and work engagement. Work-role fit, psychological meaningfulness, and work engagement were moderately related to a career orientation. It is clear that there is a strong relationship between the Calling orientation, psychological meaningfulness and work engagement. These findings are in line with Peterson Et al. (2009) who found that psychological meaningfulness and work engagement (as the routes towards happiness) is facilitated by the experience of a calling in life. Similarly, work-role fit impacts on this relationship. When one experience work as a calling it facilitates progression of the self-concept to the work role. This inadvertently leads to the experience of psychological meaningfulness in work.

The results of this study confirmed that work-role fit predicts psychological meaningfulness and work engagement. However, psychological meaningfulness did not mediate the relationship between work-role fit and work engagement, which is contrary to the findings of May et al (2004) and Olivier and Rothmann (2007). This study made use of a correlational research design, which makes it impossible to prove causal relationships. However, to test the possible relationships between the variables, a regression analysis strategy was followed in which the effects of meaning of work and work-role fit (as independent variables) and psychological meaningfulness and work engagement as dependent variables were studied. This is in line with the findings of Peterson et al. (2005) that meaningfulness and engagement are separate components of happiness (eudaimonic well-being) which might or might not be related.

The results showed that work-role fit predicted psychological meaningfulness (i.e. the experienced component of meaning). Therefore, if I/O psychologists perceive that they fit their work roles, they tend to experience more psychological meaningfulness at work. Participating in activities that are congruent with an individual's values (Waterman, 1993), and/or signature strengths (Peterson & Seligman, 2004; Seligman, 2002) contribute to the

experience of psychological meaningfulness. Also, a close proximity between an individual's self-concept and his work role induces psychological meaningfulness since he is able to express his beliefs, values and principles openly (Kahn, 1990; May et al., 2004; Olivier & Rothmann, 2007). Furthermore, a calling and career orientation towards work predicted both work-role fit and work engagement. The regression coefficients of a calling orientation and a career orientation were not statistically significant when these two variables were entered with work-role fit in the regression equation for work engagement. These findings provide evidence that work-role fit mediated the relationship between meaning of work (either a calling or a career orientation) and psychological meaningfulness. Therefore, a calling and career orientation affect psychological meaningfulness through its effect on work-role fit.

It is possible that work-role fit is affected by individuals' job re-crafting efforts. Wrzesniewski and Dutton (2003) propagate that it is a central human tendency to adapt to the environment. Wrzesniewski (2003) stated that when individuals derive little meaning from their work, they adapt by re-crafting their jobs in such a way as to derive more meaning. These activities are usually outside of these individuals' job descriptions. The experience of the I/O psychologists' high levels of work-role fit is attributable to possible job re-crafting (Wrzesniewski & Dutton, 2003). Since there is such a large discrepancy between the actual and desired time on work activities, I/O psychologists need to pursue meaning from other sources within their occupation.

The second set of regression analyses indicated that work-role fit partially mediated the relationship between the job/calling orientation and work engagement. The results showed that a calling orientation had a strong effect on work engagement and that this could partially be attributed to its effect on work-role fit. However, it seems that having a calling orientation to work (compared with a job orientation) strongly impacts on beliefs regarding work-role fit, as well as engaging physically, emotionally, and cognitively in work.

In conclusion, based on the results of this study, it is evident that I/O psychologists view their work as a calling, while some view their work as a career. I/O psychologists are spending more time than they desire on human resource management, administration, and training and development. I/O psychologists experience high levels of work-role fit which could be attributed to efforts to select, train and develop them, as well as job re-crafting efforts from

themselves. A calling orientation to work seems to have a strong effect on of psychological meaningfulness, work-role fit, and work engagement.

A major limitation to this study is that the design is cross-sectional. As a result, no causal reactions could be identified. Longitudinal studies could provide deeper insight into which activities provided deeper meaning and the reasons for engagement. It is also recommended that a random sampling technique be used to ensure the absence of bias. Another major limitation to this study relates to the respondents. The majority of the respondents experienced high levels of psychological meaningfulness and work engagement. It would seem as if only the respondents who are experiencing meaning and who are engaged completed the questionnaire. Furthermore, the work activities indicate the actual and desired time, but do not signify the importance of these activities. Furthermore, if a cross-sectional design is used in future, a more ideal distribution method should be identified in order to address sample size issues. In the current study a response rate of less than 10% was obtained via the e-mail distribution.

RECOMMENDATIONS

Based on these results various recommendations can be made. It has become evident that there is a large discrepancy between the actual- and ideal time I/O psychologists want to spend on various activities. These desired activities primarily relate to those of a psychological nature (psychological evaluation, therapy and counselling, and interventions and consultations), whereas the activities the I/O psychologists want to spend less time on are those relating to human resources. In order to induce psychological meaningfulness, management should provide I/O psychologists with the opportunity to explore activities outside of their general job description. Empowering these individuals with the autonomy to pursue these activities could result in higher levels of psychological meaningfulness, which could have an enormous impact on factors such as their organisational commitment, turnover intention and performance.

Through understanding the effects of work-role fit, the meaning of work, psychological meaningfulness and work engagement, a deeper level of understanding can be developed of the happiness of I/O psychologists. Understanding the impact of meaning and engagement as means to induce happiness, could have an enormously positive impact on the individual, the group and the organisation.

Within the current study it is recommended that the role of psychological meaningfulness and work engagement as routes towards happiness be considered and investigated further. Future studies should focus on job re-crafting as a means to induce happiness through psychological meaningfulness and work engagement (Parry, 2006; Wrzesniewski & Dutton, 2003). Finally, the psychometric properties of both the WLQ and the WES should be further investigated. Items on the WLQ should be revisited, and clearly defined.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to offer conclusions, recommendations and limitations regarding the results of the empirical study. Firstly, conclusions are drawn from the research objectives. Secondly, the limitations of the study will be highlighted. Finally, recommendations will be made for future research into the field of industrial/organisational psychology and future research opportunities will be highlighted.

3.1 CONCLUSIONS

The general aim of this study was to investigate the relationships between work-role fit, meaningfulness (meaning of work; psychological meaningfulness) and work engagement of industrial/organisational psychologists in South Africa. Based on the empirical results of the pervious chapter, the following conclusions can be drawn:

The first objective of this study was to conceptualise work-role fit, meaning of work, psychological meaningfulness, work engagement, I/O psychologist and the relationships between these constructs from the literature. **Work-role fit** is conceptualised as the perceived 'fit' between individuals' self-concept and their role within the organisation (May, Gilson, & Harter, 2004). Research suggested that the proximity of the self-concept to a work-role (work-role fit) results in the manifestation of meaningfulness and work engagement (Kahn, 1990; May et al., 2004; Olivier & Rothman, 2007). Participating in activities that are congruent with an individual's values (Waterman, 1993) and/or signature strengths (Peterson & Seligman, 2004; Seligman, 2002) contribute to the experience of psychological meaningfulness and engagement in work (May et al., 2004).

Two conceptualisations of meaningfulness are used for the purposes of this study, namely meaning of work (Bellah et al., 1985; Wrzesniewski et al., 1997) and psychological meaningfulness (Kahn, 1990; May et al., 2004; Spreitzer, 1995). Bellah, Madsen, Sullivan, Swidler and Tipton (1985) conceptualised the **meaning of work** as the degree of general importance that the experience of working has in the life of an individual at a given timestamp. According to Bellah et al. (1985), these subjective experiences are classified into

three main domains, where the individuals experience their work either as a *job* (engaging in work activities for financial reasons); a *career* (concerned with the progression of continuous advancement within the corporate structure through devoting considerable amounts of time and energy to work activities); or a *calling* (individuals engage in work activities as a result of the fulfilment derived from work engagement). The presence of a calling promotes the experience of meaningful work (Wrzesniewski et al., 1997).

Kahn (1990) conceptualised **psychological meaningfulness** as the feeling that one is receiving a return on investment on the energy applied to a given context. May et al. (2004) elaborate on this definition through defining it as the perceived value of a work goal judged in relation to the individual's own ideals or standards (May et al., 2004). Psychological meaningfulness has shown to be a great contributor to aspects such as work engagement (May et al., 2004), organisational commitment, resilience, turnover intention (Cameron, Dutton, & Quinn, 2003) and happiness (Peterson, Park & Seligman, 2005; Seligman, 2002).

Work engagement is conceptualised as the behaviours employees exert in order to suppress or live out their true selves during work role exertions. This then manifests in an emotional-, cognitive- and behavioural dimension (Kahn, 1990; May et al., 2004). Both May et al. (2004) and Olivier and Rothman (2007) found that the experience of work-role fit facilitates the onset of work engagement. May et al. (2004) also found that the experience of psychological meaningfulness increases work engagement. Furthermore, psychological meaningfulness mediates the relationship between work-role fit and work engagement (May et al., 2004; Olivier & Rothmann, 2007). Similarly, Peterson et al. (2005) found that the experience of psychological meaningfulness and work engagement (as routes to happiness) is discernible, compatible and could be pursued simultaneously.

Finally, an **I/O psychologist** is someone who “applies the principles of psychology to issues related to the work situation to optimise individual, group and organisational well-being and effectiveness” (HPCSA, 2009).

The second objective of this study was to determine how I/O psychologists experience the meaning of their work (in terms of jobs, careers or callings). The empirical research suggests the job- and calling orientations to lie on a continuum. This is in line with Wrzesniewski et al. (1997) who found that if you view your work as a job, that you will not view your work as a

calling. The empirical results showed that the majority of the I/O psychologists viewed their work as a calling (50%). This implies that the majority of the respondents feel that they were placed on earth to be I/O psychologists. I/O psychologists believe their work to contribute to a greater cause. This is in line with the hypothesis of Bellah et al. (1985) that individuals in helping professions perceive their work to be a calling. Furthermore, only 16% of the I/O psychologists viewed their work as a career. These I/O psychologists work in order to move up in the organisation's hierarchy and derive meaning from the social status, affiliation and power associated with progression in the hierarchy (Wrzesniewski et al., 1997). Finally, approximately 7% of the I/O psychologists viewed their work as to be a Job. These individuals are only engaging in their work for financial reasons (Wrzesniewski et al., 1997). These I/O psychologists work to use the financial rewards in order to address meaning needs outside of the occupational context. These needs might relate to providing for their families.

The third objective of this research was to investigate the relationships between work-role fit, meaning of work, psychological meaningfulness, and work engagement in a sample of I/O psychologists. A Pearson product-moment correlation was conducted in order to determine the relationships between these variables. It was found that work-role fit increases psychological meaningfulness and work engagement. Furthermore, a positive relationship exists between psychological meaningfulness and work engagement. Work-role fit predicted the job/calling orientation, where the job/calling orientation also predicted psychological meaningfulness. Psychological meaningfulness is predicted by both the job/calling orientation and work-role fit. Work-role fit mediated the relationship between the calling orientation and psychological meaningfulness. Furthermore, the regression coefficients of job/calling were statistically significantly related to work engagement. When work-role fit was entered into the regression, it predicted 80% of the variance in work engagement. In the last step of the regression it was found that the job/calling orientation as well as work-role fit was statistically significant. Therefore, it was concluded that work-role fit mediated the relationship between the job/calling orientation and work engagement.

The final objective of this study was to assess whether psychological meaningfulness mediates the relationship between work-role fit and work engagement in a sample of I/O psychologists. The results indicate that work-role fit was a statistically and practically significant predictor of psychological meaningfulness and engagement. Psychological meaningfulness also predicted work engagement both practically and statistically

significantly. However, the hypothesised mediating effect of psychological meaningfulness could not be established. Therefore, psychological meaningfulness does not mediate the relationship between work-role fit and work engagement. These findings are incongruent with those found by both May et al. (2004) in a large insurance firm and Olivier and Rothmann (2007) in a large petrochemical organisation.

3.2 LIMITATIONS OF THIS RESEARCH

This research project was faced with various limitations. A dire limitation relates to the small sample size and the sampling method. On 3 October 2009, 1142 I/O psychologists were registered with the HPCSA. From these 1142, a random sample of 300 I/O psychologists were selected to be part of the study. Questionnaires were sent out with an initial response rate of below 1%. This might be attributable to the time of year in which the survey was sent out. In their study, Benjamin and Louw-Potgieter (2008) obtained 129 respondents with full access to the SIOPSA's member database. To compensate for this, a convenience sample was drawn based on the rest of the respondents. During the second attempt, more than 700 questionnaires were sent out which resulted in 106 respondents. This acts as an indication of the work load of I/O psychologists. The distribution method also seemed to be rather ineffective. E-mailing questionnaires produced a slightly below average response rate.

Another limitation to this study is based on the research design. A cross-sectional research design was used in order to gather data at one timestamp. The cross-sectional design limits the study in such a manner that no causal inferences can be made. Furthermore, the relationships between the variables were inferred and not ascertained. The current levels of work-role fit, meaning of work, psychological meaningfulness and work engagement were measured, however the results might not be sustainable over time. Furthermore, it could be presumed that only the I/O psychologists who experienced high levels of psychological meaningfulness and work engagement completed the questionnaires. Further investigation is needed in order to draw in non-respondents as well.

Furthermore, the research based on the actual and desired time of the I/O psychologists' work activities did not signify the importance of these activities. Therefore, future studies should include this in the research battery in order to address the underlying motivation forces which might impact on the relationship between these variables.

A very low percentage of respondents were of different races. This might be as a result of a potential language barrier. Respondents for different ethnic groups might interpret certain items differently than the actual meaning. The questionnaires should have been translated into at least one other African language.

The use of only self-report measures also hindered the study. Self-report measures sample an individual's perceptions about the constructs and might not measure the constructs themselves. As registered I/O psychologists, participants in this study might have demonstrated knowledge about the questionnaire and/or constructs. This might have influenced their position when completing the questionnaires. The results might have been distorted along a particular choice set.

Individuals, who are in managerial positions, are also less likely to spend time on the various activities propagated by Benjamin and Louw-Potgieter (2008). A safe guard relating to this factor was not taken into consideration.

Finally, psychometric properties of both the Work-Life Questionnaire (WLQ) and the Work Engagement Scale (WES) should be further investigated. Items on the WLQ should be revisited, and clearly defined. One respondent commented that he found one of the items ("*I am very conscious of what day of the work week it is and I greatly anticipate weekends. I say, 'Thank God it's Friday!'*") on the WLQ offensive. There is a realistic possibility that this individual represents a group of people who felt similar. Furthermore, a five-point Likert type scale should have been used on the WLQ instead of the original four-point Likert scale. This should be done in order to build in a 'neutral' response.

3.3 RECOMMENDATIONS

Despite these limitations, various recommendations could be made to the field of I/O psychology as well as for future research.

3.3.1 Recommendations for the field of I/O psychology

Recommendations could be made based on the findings of the research. This research project provided unique insights relating to the content and relationships between work-role fit, meaning of work, psychological meaningfulness and work engagement of I/O psychologists in South Africa. Building on the foundation set out by Benjamin and Louw-Potgieter (2008), it has become evident that the majority of the work activities I/O psychologists spend their time on are not of a psychological nature. In order to induce psychological meaningfulness, management should provide I/O psychologists with the opportunity to explore activities outside of their general job description. Providing I/O psychologists with the necessary autonomy to pursue these activities could result in higher levels of psychological meaningfulness which could have a dire impact on factors such as their organisational commitment, turnover intention and performance.

Through understanding the effects of work-role fit, the meaning of work, psychological meaningfulness and work engagement, a deeper level of understanding can be developed of the happiness of I/O psychologists. Understanding the impact of meaning and engagement as means to induce happiness, could have an enormously positive impact on the individual, the group and the organisation.

Furthermore, I/O psychologists should be made aware of the concept of job re-crafting and be exposed to various primary initiatives to facilitate its manifestation. I/O psychologists should be provided with the opportunity to express their own values and strengths within the organisational environment, in order to increase their current level of happiness (in terms of psychological meaningfulness and work engagement). This should produce a deeper level of motivation than any other primary-, secondary- or tertiary initiative. Building sustainable happiness through psychological meaningfulness and work engagement could manifest in greater organisational commitment, -loyalty and a feeling that one is psychologically empowered.

3.3.2 Recommendations for future research

Although certain limitations exist in the study, the findings may have some important implications for future research within the field of I/O psychology. Even though I/O

psychologists are the primary happiness facilitators within the organisation, little research exists pertaining to their work identity. Since I/O psychologists are trapped between human resource management and true psychology (Barnard & Fourie, 2007; Benjamin & Louw-Potgieter, 2008), future research should be aimed at refining their identity. This would have a tremendous impact on professional ethics and the overall happiness of I/O psychologists.

For future research relating to I/O psychologists, the following should be considered:

- The psychometric properties of both the WLQ and the WES should be further investigated. Items on the WLQ should be revisited and clearly defined.
- If further cross-sectional studies will be used, then surveys should be sent out in January before the respondents' workload increases.
- Longitudinal studies need to be utilised in order to determine the causal factors and relationships between work-role fit, meaningfulness and work engagement.
- Stratified random samples should be utilised in order to draw a representative sample from the entire population.
- A web-based distribution method should be employed in order to increase the response rate.

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