

THE RELATIONSHIP BETWEEN PERSONALITY VARIABLES
AND JUSTICE PERCEPTIONS OF THE EMPLOYMENT EQUITY
ACT

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DECLARATION

I hereby declare that this dissertation is my own
unaided work and has not been submitted to any other
University for the purpose of any other degree.



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Date

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ABSTRACT

The current research report examines the relationship between personality variables and the perceptions of distributive, procedural and interpersonal justice. The study was performed with 70 employees from a company that supplies a financial service to the man on the street and companies with regard to all movable assets. The results indicated that certain aspects of the personality as defined by Jung do impact on an individual's Justice Perceptions. However, the sample size was too small to draw any conclusive relationships. The theoretical and practical implications of this are discussed along with limitations of the current research and directions for future research have been considered.

Chapter 1: Introduction

In the preface of his book, Greenberg (1996) states that "Few concepts are as fundamental to human social interaction as justice. Whether it is a court decision, the outcome of a sporting event, the assignment of household chores, or just about any other type of social exchange, matters of fairness are bound to arise". (Pg. vii). This very centrality of the concept has led to the need to understand how and what it is. The concept of justice has been in existence since the time of Theognis, who was an ancient sage, and Ancient Greece (Brunner, 1946). However, the depth and scope of the word 'just' has long since been lost and now when speaking of the terms "just" and "unjust" a more restricted meaning is applied, rather than simply distinguishing between good and evil (Brunner, 1946). Later, Aristotle drew a clear distinction between the broader sense of the meaning of the word 'just' as being righteousness, and the more restricted or specific sense in which it means a just rendering to every man of his due (Brunner, 1946).

An essential element of justice is its emphasis on equality. Individuals need to feel that they are being treated in a manner that is the same as any other individual. This treatment is with regard to the allocation of resources, which include material resources, status and social opportunity. In most groups standards are set in order to ensure this equal distribution of resources and these standards then form the basis of the groups differentiation between what is right and what is wrong, as well as just and unjust treatment (Katz, 1999).

If this common standard exists the question that needs to be considered is why do individuals in the same situation have differing perceptions of whether or not the

situation is fair. Could it be that different groups within the larger social aggregation have different standards? How then would an individual with membership in more than one group decide on which standards to use? Do they amalgamate all the standards or choose which group standards to use from situation to situation? What if the individuals are in the same group, why then do they at times have different justice perceptions in a given situation? Why would one individual feel that the situation is just and the other that it is unjust? Questions like these have formed the basis of much of the debate in this area and vast quantities of research.

Research in this area has until recently focused on aspects such as the outcomes of the decision making process (Adams, 1963), the characteristics of the decision making process (Bies and Shapiro, 1988; Thibaut and Walker, 1975; Landy, Barnes and Murphy, 1978), the context within which the decision is made (Nunns, 1994) and the effects of the perceptions on the individuals behaviour (Schwarzwald, Kowolsky and Shalit, 1992). However, some of the more simple concepts, such as individual differences have remained relatively under researched. Katz (1999) states that even though it is widely accepted that justice perceptions can vary from individual to individual, individual traits or characteristics which may effect these perceptions have not formed the focus of all that many research efforts. She went on to conduct research that showed that demographic variables significantly effect an individual's justice perceptions.

If individual characteristics effect an individual's justice perception of a given situation, what could be more individualistic in nature than personality? Personality theories have two main objectives. Firstly they seek to examine how an individual is like other human beings, and secondly how they differ from other human beings

(Hergenhahn, 1994). These individual differences may be able to explain differences in behaviour across individuals in a given situation.

There have been a few studies that have focused on the relationship between an individual's personality and their justice perceptions, such as Ball, Trevino, and Sims (1994); and Kuanyshbek (2000). However these studies have focused on one or more personality characteristic, such as autonomy or empathy, rather than examining the individual as a whole. For this reason the current study sought to use a personality theory rather than a characteristic. Jung's Psychological Type theory examines normal differences between individuals. It does not seek to explain or identify any abnormal behaviour. Jung's theory focuses on differences in how an individual prefers to use their mind, specifically in the way they perceive things, i.e. how they become aware of things, people, occurrences and ideas, and how they come to conclusions about what they perceive (Myers, 1998). If an individual's personality type governs how they perceive facts and make judgements, it is logical to conclude that by its very nature it will effect an individual's justice perception of a situation, as this perception is based on how they take in information and how they reach a conclusion based on this information.

For this reason the current study focused on the relationship between an individual's personality type and their justice perceptions of the Employment Equity Act, No. 19370, 1998. The Employment Equity Act was chosen, as in South Africa it is a relatively new act with little research on its impact on society. A further reason for choosing the Employment Equity Act as the vehicle within which to conduct the

research is the fact that the act is controversial in nature, as it attempts to address past discrimination in South Africa.

Chapter 2: Literature Review

2.1 Organisational Justice perceptions

Justice as a characteristic emerges in any social gathering or aggregation (Katz, 1999).

People gather into groups as they identify a commonality between themselves and others, and recognise the need for coexistence (Katz, 1999). Because justice is seen to be rendering unto each man his due it is seen to be both connecting and severing the individual from the community or group (Brunner, 1946). It connects by assigning to the individual his place in the ordered whole and severs by allotting to each "his" place which is no one else's (Brunner, 1946).

Organisational justice is one of the topics which has been examined extensively within organisational behaviour, human resources management and industrial-organisational psychology and deals with peoples perceptions of fairness in organisations (Cropanzano and Greenberg, 1997). Greenberg (1990, 1993, 1996), argues that the major value of studying justice phenomena lies in the insight that they provide with respect to understanding and managing various aspects of organisational behaviour (Cited in Cropanzano and Greenberg, 1997). Within the concept of Organisational Justice three very distinct aspects have been identified. Namely, Distributive Justice, Procedural Justice and Interpersonal Justice. Each aspect will be considered separately, however they should not be seen as independent of each other, rather as interdependent.

2.1.1 Distributive justice

During World War 2, research within the area of justice identified 'relative deprivation' as a core justice concept (Tyler, 1994). Relative deprivation theory

argues that individuals judge outcomes as unfair when the outcomes they actually receive fall short of the outcomes they expected to receive (Van den Bos, Vermunt and Wilke, 1997). This was followed by a large amount of literature on Adam's Equity Theory (1965), which demonstrated that people are affected by their attitudes regarding fair principals of outcome distribution (Cited in Tyler, 1994). These attitudes can in many ways be seen as been equivalent to perceptions. They are determined by how the individual examines the information they have obtained about what is fair and what is not, and this information is then used to come to a conclusion about what the individual feels is a fair principal for the distribution of outcomes. This was the first aspect of organisational justice perceptions that was identified and was termed Distributive Justice.

Distributive justice looks at the individuals' perceptions of what is fair and/or unfair regarding how organisational resources or rewards are distributed (Nunns, 1994). The Equity theory (Adams, 1963, 1965) postulates that the individual evaluates the ratio of inputs to outcomes they experience against the ratio of inputs to outcomes experienced by a relevant other (Cited in Novelli, Kirkman and Shapiro, 1995). In other words, people evaluate whether or not they are putting more effort in for what they are getting out compared to others or standards.

In order to fully understand the Equity Theory it is important to understand what aspects in a relationship act as inputs and outcomes, as these are used in the comparison with the referent other and therefore influence the justice perception of the individual. Each party brings contributions to an exchange, for which they expect a just return, which are termed inputs (Katz, 1999). Adams (1963) identifies



education, intelligence, experience, seniority, age, gender, social status, and ethnic background as being some of the possible attributes that parties may perceive as being relevant inputs. However, what one party may perceive as an input may not be perceived as input by the other party. For example, an individual may perceive his inputs into an employment relationship as being his intelligence, skills or qualifications and his creativity and will therefore expect the company to remunerate according to these inputs (Katz, 1999). The company may not see his creativity as being a relevant input to the exchange and may not take it into account when calculating the individuals remuneration (Katz, 1999).

In exchange for these inputs, individuals expect certain rewards or outcomes. These outcomes may include pay, status symbols, fringe benefits, and job status (Katz, 1999). Similar to inputs, each party may perceive the outcome differently, with regard to its relevance. For example, an employee may be given verbal recognition for completing a project on schedule but the employee may feel that this praise lacks utility and relevance and would have preferred monetary compensation for the overtime that they worked in order to complete the project on time (Katz, 1999).

Adams (1963) also propounds that whenever an exchange occurs between two parties, there is a possibility that one of the parties may perceive the exchange as being inequitable. In other words that the ratios between their inputs and their outputs in their exchange are unequal and this results in a negative state, which may cause tension. If the ratios are unequal, the party whose ratio is higher is said to be inequitably overpaid and theoretically would feel guilty, whereas the party whose ratio is lower is said to be inequitably underpaid and theoretically would feel angry

(Greenberg, 1990b). Equal ratios are postulated to yield equitable states and associated feelings of satisfaction (Greenberg, 1990a). Because of the desire to maintain a sense of fairness individuals in inequitable tension may adjust their behaviours or their cognition's to bring the ratios into balance (Greenberg, 1984, cited in Greenberg, 1990a; Novelli, Kirkman and Shapiro, 1995). These adjustments may be behavioural in nature, for example lowering or increasing one's work contributions, and/ or psychological, such as reassessing the perceived value of the outcomes (Greenberg, 1996).

Research in this area initially focused on the making of justice judgements and how a referent other was selected, as well as the way that individuals assess the inputs and outcomes of others (Katz, 1999). For example Goodman (1974) suggested that the choice of referent is a function of both the availability of information about the referent and the relevance or attractiveness of the referent for the comparison (Cited in Kulik and Ambrose, 1992). In this study Goodman (1974) examined the referents that were used in the evaluation of pay and found that people are more likely to compare themselves with similar others (such as those of the same sex or those performing the same jobs) than with dissimilar others. In a later study Kulik and Ambrose (1992) examined the personal and situational determinants of referent choice. They assert that the individual's justice perception of a situation may be positive, negative or neutral depending on who was chosen to be the referent other (Kulik and Ambrose, 1992). They also state that the Equity Theory implies that the same circumstances may result in either a desirable or undesirable state, depending on the selected referent (Kulik and Ambrose, 1992).

Research in the area of justice perceptions also sought to understand the effects or consequences of justice perceptions. For example it has been shown that negative distributive justice perceptions may result in behaviours such as poor performance, turnover and absenteeism (Cropanzano and Greenberg, 1997; Kulik and Ambrose, 1992). For example, Schwarzwald, Koslowsky and Shalit (1992) examined work attitudes and absenteeism among individual's being considered for promotion (Cropanzano and Greenberg, 1997). After failing to receive a promotion it was found that individual's experienced lower feelings of commitment and higher feelings of inequity and that there was an increase in absenteeism (Cropanzano and Greenberg, 1997). The researchers reasoned that the promoted co-workers were acting as the referent others for the individuals who did not receive a promotion (Cropanzano and Greenberg, 1997).

Many criticisms have been voiced about this aspect of Justice Perceptions, as well as the Adam's Equity theory itself. Van den Bost and Lind (1997) criticised this aspect of justice perception by asserting that the proponents of the distributive perspective overlooked a crucial flaw in the Equity Theory, namely that the individual will not have access to information pertaining to the outcomes of referent others, and in this way the theoretical foundation of this perspective loses its power. They argued that procedural justice is a far more useful tool in the analysis of justice (Van den Bost and Lind, 1997). Procedural Justice takes into account that the procedure that is used to determine the distribution of the rewards may effect the individual's justice perception. However, the question that needs to be considered is whether or not it is necessary to dichotomise justice perceptions, or if rather that both aspects enable the researcher to understand the situation holistically.

Leventhal (1980, cited in Greenberg, 1990b) criticised the Equity Theories lack of consideration of how perceptions of justice are influenced by the procedures through which outcomes are determined. This limitation has lead to the broadening of the domain of organisational justice variables to include procedural justice variables focusing on how outcomes are determined (Greenberg, 1987). Questions that weere now raised became more process oriented in that they dealt with how decision were made as opposed to what decision were made (Folger & Greenberg, 1985, cited in Greenberg, 1990b).

2.1.2 Procedural Justice

The second wave of justice research began with the work of Thibaut and Walker, in 1975, which showed an influence of evaluations of how decisions are made, that is, procedural justice (Tyler, 1994). The introduction of the concept of Procedural Justice indicates that there was an identification of the need to examine the process of justice perceptions as well as the outcomes. Procedural justice perceptions looks at the individuals' perceptions of the procedures which are used to distribute rewards and organisational resources (Nunns, 1994). It is therefore not looking at the fairness of the outcomes themselves but rather the fairness of the methods or procedures used to determine the outcomes (Novelli et al, 1995). Most of the theoretical work in this area has focused on the characteristics of procedures and the different types of procedures that impact on justice judgements (Cropanzano & Greenberg, 1997).

Historically, this area of justice perceptions has been explained by the instrumental model proposed by Thibaut and Kelly in 1959 (Tyler, Degoey and Smith, 1996).

Based on Social Exchange Theory the instrumental model links the evaluation of authorities to judgements of direct and indirect control over the outcomes of allocation procedures (Tyler et al, 1996). When direct control of a situation is given to a third party, the individual attempts to obtain indirect control by being able to present evidence ('voice') (Tyler et al, 1996). In a later psychological model proposed by Thibaut and Walker (1975) a distinction was made between the two types of control that occur at two stages in any given procedure, namely process control and decision control. Process control refers to the participant's control over the presentation of facts, information and evidence and is often equated with indirect control or voice (Folger, 1977, cited in Pearce, Bigley & Branyiczki, 1998). Decision control refers to the participant's control over the actual decision and can be equated with direct control (Thibaut & Walker, 1975). Studies have shown that the opportunity to have control over the decision-making process influences peoples views about procedural justice and that process control is more important than decision control (Tyler, 1989; Tyler et al, 1996). Landy, Barnes and Murphy (1978) illustrated this point in their study, which examined the perceived fairness and accuracy of performance evaluations. In this study it was found that among managerial and professional employees that the perceptions of the fairness of the performance evaluations they received were highly correlated with such process variables as the opportunities to express their feelings during performance evaluations.

It has also been found that people care about "voice" even when they believe that it has little or no influence over the outcome (Tyler et al, 1996). In a follow up study conducted by Landy, Barnes-Farrel and Cleveland, (1980) the possibility that the individual's justice perception would be influenced by the evaluations that they

received was controlled for. Even with the outcome of the evaluation process being partialled out it was found that the perceived fairness was still strongly associated with reactions to process variables. Therefore if an individual has the opportunity to voice their opinion or give information that they feel is relevant and the outcome is negative, they will be more likely to accept the negative outcome without feeling that it is unjust.

Although Thibaut and Walker (1975) emphasised the importance of process control, the approach to procedural justice offered by Leventhal (1980, cited in Greenberg, 1990a) focused on other aspects of procedural justice, specifically various procedural elements, such as the selection of decision makers, setting ground rules for evaluating potential rewards, procedures defining the decision process or procedures for appeals for example, that are used to evaluate the fairness of outcome-distribution procedures. The fairness of the procedures according to Leventhal (1980, cited in Greenberg, 1990a) is evaluated according to six criteria, namely, the extent to which they suppress bias, create consistent allocations, rely on accurate information, are correctable, represent the concerns of all recipients, and are based on moral and ethical standards.

Lind and Tyler (1988; 1992) proposed an alternative explanation which suggests that procedural justice is important because it informs people about their social connection to groups and group authorities (Cited in Tyler et al, 1996). They assert that procedural justice provides individuals with certain personal outcomes, which impact on the individual psychologically (Tyler et al, 1996). Some examples of these rewards include increased self-esteem; respect and the individual may feel proud of his/her

group membership (Tyler et al, 1996). These psychological rewards may become as important or even more important to the individual, than the original material rewards that were sought (Tyler et al, 1996).

Research in the area of Distributive Justice initially focused on trying to differentiate between distributive and procedural justice (Brockner and Wiesenfeld, 1996). For example, Tyler and Degoey (1995) found that the more strongly individuals believed that officials were making decisions about water rations on a fair basis, the more likely they were to cooperate with those decisions (Cited in Cropanzano and Greenberg, 1997). Schaubroeck, May and Brown (1994) found similar results when examining justice perceptions of pay freezes (Cited in Cropanzano and Greenberg, 1997). In this study it was seen that salaried employees reacted less negatively to a pay freeze when it was implemented in a procedurally fair manner (Cropanzano and Greenberg, 1997). From these two examples it is seen that even though the outcomes were negative for the individual, their focus was on the procedure rather than the outcome.

Although studies such as Alexander and Ruderman (1987), indicated that procedural and distributive justice function independently of each other and that procedural justice accounted for significantly more variance than distributive justice in predicting work-related attitudes, these studies or findings are important in so far as they highlight the value of the procedural justice concept. They should not however, be taken as evidence of the unimportance of distributive justice factors within an organisation (Greenberg, 1990b). The question is therefore not which aspect is better than the other, but rather how they operate together.

2.1.3 Interactional/Interpersonal Justice

More recently there has been an interest in a third aspect of organisational justice, namely that of Interpersonal justice and due to the recency of this interest research in this area is limited (Katz, 1999). The concept of interactional/interpersonal justice perceptions looks at the perceived fairness with which outcomes are communicated to employees on an interpersonal level (Katz, 1999). It is also defined as looking at the perceived fairness of the treatment received and the symbolic and intangible outcomes of the procedure (for example respect) (Katz, 1999).

Due to the relative newness of the concept of interpersonal justice, research in the area of justice perceptions has generally focussed on distributive and procedural justice (Nunns, 1994). It has been argued that this may partially be due to the fact that research has suggested that interpersonal justice is an aspect of procedural justice as opposed to a separate dimension of justice (Cropanzano and Greenberg, 1997). However Bies (1986, cited in Greenberg, 1996) contended that interactional justice should be understood as separate from procedural justice on the grounds that it represents the enactment of procedures rather than the development of procedures themselves.

Greenberg (1990b) identified two factors as being central to the interpersonal aspect of procedural justice. They are: - a) that the reasons for the underlying resource allocation decision has been clearly explained to all affected parties, and, b) that those how were responsible for the decision treated all parties that were affected with respect and dignity (i.e. the interpersonal treatment from the decision makers) (Brockner and Wiesenfeld, 1996).

In a study conducted by Bies (1986, cited in Greenberg, 1996), the interpersonal aspect of Interactional justice was clearly illustrated. In this study masters of business administration (MBA) students were asked to list criteria they would use to evaluate the fairness of corporate recruiting procedures, interpersonal treatment, such as honesty, respect for rights, timely feedback and courtesy, were identified along with more formal procedural justice considerations (Bies, 1986, cited in Greenberg, 1996). In a follow up study, Bies asked another group of MBA students to describe instances of fair and unfair treatment they had received during the course of employment interviews and the same four interpersonal factors were identified. Concerns about the quality of interpersonal treatment were expressed regardless of the outcome being positive or negative, which suggests that interpersonal treatment is considered as important aspect of fair treatment independent of the outcomes resulting from that treatment.

The second aspect of interactional justice, that of the use of adequate explanation was examined in a study conducted by Bies and Shapiro (1987, cited in Greenberg, 1996). In this study it was found that people who received negative outcomes, such as being turned down for a position, were more likely to accept the procedures leading to them as fair when an explanation was offered than when no explanation was offered. Extending these findings, Bies, Shapiro and Cummings (1988, cited in Greenberg, 1996) found that perceptions of procedural justice were enhanced only when explanations were believed to be adequately reasoned and sincerely communicated.

Research into this area has examined various different variables that may influence how an individual makes their justice judgements. The variables range from the

characteristics of the decision making process (Bies and Shapiro, 1988, cited in Katz, 1999), to characteristics of the context with in which the decision is made (Nunns, 1995), and to the characteristics of the outcome itself (Adams, 1969, cited in Novelli, et al, 1995). Researchers have also focused on both the process and the outcomes of justice perceptions (Ball, et al, 1994).

However, little has been done on the individual characteristics of a person, that would make two people in the same situation have different justice perceptions. Perhaps the most individual characteristic of an individual is their personality. The personality of an individual is a defining characteristic of an individual and research in this area has often shown that it effects how an individual interprets and interacts with their environment. For this reason this particular individual characteristic was chosen.

Those studies that have looked at the relationship between personality and justice perceptions have normally focused on a single aspect of personality or on a few aspects, rather than on personality as a whole. Some examples of studies that have examined the relationship between personality and justice perceptions are Balls, Trevino and Simms (1994), who looked at belief in a just world and negative affectivity; and Kuanysbek (2000), who sought to measure predisposition of personality to revenge and its correlates. Kuanysbek considered revenge to be a characteristic of personality. Therefore research in this area is lacking with regard to the effect of all aspects of an individual's personality on their justice perceptions of a situation and with this in mind the current research used a theory of personality instead of a single aspect.

2.2 Personality

In Myers (1990) the first chapter is started with the statement that “ It is fashionable to say that the individual is unique”(Pg. 1). Myers goes on to explain that an individual is a product of their own heredity and environment and therefore no one individual is the identical to another (1990). It can therefore not be assumed that another individual's mind works on the same principles as our own (Myers, 1990). She concludes the first paragraph with “All too often, others with whom we come in contact do not reason as we reason, or do not value the things we value, or are not interested in what interests us” (Myers, 1990, pg.1). This is the very essence of personality and it is what makes it an important aspect to study in relation to Justice Perceptions, as it will enable individuals to understand why people in the same situation will perceive something differently.

MacKinnon (1944, cited in Hogan, Hogan and Roberts, 1996), noted that personality could be defined in two distinct manners. Firstly, personality refers to factors inside an individual that explain their behaviour (MacKinnon ,1944, cited in Hogan, Hogan and Roberts, 1996). These factors include temperaments and interpersonal strategies that the individual has developed to deal with others and find their way in the world (MacKinnon ,1944, cited in Hogan, Hogan and Roberts, 1996). Temperament in this definition refers to a genetically controlled disposition that determines the fundamental pace and mood of an individual's actions (MacKinnon ,1944, cited in Hogan, Hogan and Roberts, 1996). These factors are what drive the individuals social behaviour and their responses to personality questionnaires (MacKinnon ,1944, cited in Hogan, Hogan and Roberts, 1996).

On the other hand, personality refers to an individual's distinctive interpersonal characteristics; this aspect of personality is the functional equivalent of the individual's reputation (MacKinnon, 1944, cited in Hogan, Hogan and Roberts, 1996). Some personality psychologists regard this aspect of personality as being the most important aspect of personality (Hogan, Hogan and Roberts, 1996). Hoist (1994) argues that because reputation is built on a person's past behaviour, and past behaviour is the best predictor of future behaviour, then this aspect of personality is of the most practical use (Cited in Hogan, Hogan and Roberts, 1996). In addition to being of practical use it is also the most accessible aspect of personality for measurement (Hoist, 1994, cited in Hogan, Hogan and Roberts, 1996).

From the earliest times, personality-type terms have been used in such a manner to describe or explain the inner state of a human being (England, 1993). A system has been set up to enable individuals to organise the behaviour of themselves and others (England, 1993). Categorisation processes are essential in that they allow individuals to identify objects, infer attributes which are not observable, make predictions about the future and to understand the causes of events (England, 1993).

More recently the exchange of influence between individuals has become a controversial topic and has led to a resurgence of personality research, and in doing so forcing a reassessment of the role of a person's disposition in explaining social behaviour (Stone, 1998). Psychological theories of personality attempt to make sense of human conduct, discover similarities and uniformity and character among individuals; and to determine general principles according to which different motives for behaviour can be explained (Stone, 1998; Hergenhahn, 1994), as well as enabling

personality to be incorporated with other information, such as culture, to enable a country to make effective use of its human resources (England, 1993). The study of personality is perhaps best summed by Jones and Thorne (1987, cited in England, 1993), who put forward that research in personality aims to understand the understandings of individuals: how they construe their experiences, their predicaments, and their lives.

2.2.1 Psychological type

Psychological type is a theory of personality developed by Carl Jung to explain *normal* differences between healthy people (Myers, 1998). It does not seek to identify pathologies, rather it seeks to understand normal behaviour. Through his observations, Jung concluded that the inborn tendencies of individuals to use their minds in different ways resulted in differences in behaviour (Myers, 1998). As individuals act out these tendencies, they develop patterns of behaviour (Myers, 1998). From this it can be concluded that much of the seemingly chance variation in human behaviour is in fact due to the logical result of a few basic, observable differences in mental functioning (Myers, 1990). Jung's theory differs from other personality classifications, in that it focuses on the movement of psychic energy and the way in which a person habitually or preferentially orients themselves in the world, whereas others tend to be based on observations of temperament or emotional behaviour (Frazer, 1994).

Jung focuses on the basic differences in mental functioning by examining the way individuals prefer to use their minds, specifically the way in which they perceive and the way in which they make judgements (Myers, 1990). For Jung Perceiving is the

processes used to become aware of things, people, occurrences, and ideas, while Judging includes the processes of coming to conclusions about what is perceived (Myers, 1998). Together these two processes make up much of an individual's total mental activity and govern much of their outer behaviour (Myers, 1998). This is due to the fact that perception, by definition, will determine what an individual will see in a situation and their judgements will determine what they decide to do about it (Myers, 1998). Therefore it can be reasonably concluded that differences in perception and judging will result in corresponding differences in behaviour (Myers, 1998).

In the previous section it was seen that an individual bases their justice perceptions on a comparison of their relative inputs and outputs to that of a referent other, or on whether they feel that the process used to decide on the distribution of the rewards was fair. If an individual's personality governs what information they will pay attention to in a situation and what they decide to do about it then it follows that it will effect their justice perception of the situation.

From his observations as a medical doctor and from intense introspection Jung differentiated six typological groups, which are made up of two personality attitudes, namely extroversion and introversion, and four functions or modes of orientation, which are thinking, feeling, sensation and intuition (Myers, 1998). Jung clarified his position with regard to an individual being either one mechanism or the other by saying that every individual possesses both mechanisms - extroversion as well as introversion and only the relative predominance of the one or the other determines the type (Jung, 1923/1971, cited in Barbuto, 1997). Jung also believed that the more

unconscious or repressed the alternative dichotomous attitude or function was, the less likely it is to show up in an individual's behaviour (Jung, 1923/1971, cited in Barbuto, 1997). Ordinarily, an individual may be more extroverted than introverted for example as the two attitudes are rarely in balance.

As mentioned previously the two attitudes that Jung identified were Introversion and Extroversion. *Introversion* (I) and *extroversion* (E) are the two general orientations an individual may take in relating to the world (Frazer, 1994; Hergenhahn, 1994).

Extroverts direct their interest outwards or towards the outer world, with the outer reality being of primary importance (Myers, 1998). In other words they direct their attention to objects and people in the environment (Carland & Carland, 1990).

Extroverts are generally relaxed and confident even in unfamiliar circumstances, they are people of action and practical achievement, who go from doing to considering back to doing (Myers & Myers, 1995). They are understandable and accessible and are often more at home in the world of people and things than in the world of ideas (Myers & Myers, 1995). They tend to unload or show their emotions as they go along and in that way seem more expansive and less impassioned as they do not have sudden outbursts of emotion, (Myers & Myers, 1995). Some of the characteristics associated with extroversion are being attuned to the external environment, a preference to communicating by talking, being sociable and expressive, having broad interests and readily taking initiative in work and relationships (Myers, 1998).

An extroverted individual with their preference for communicating by talking may be more likely to feel that they had an opportunity to have "voice" in any given situation

as they may be more inclined to speak up if they feel they need to. They may also be more inclined to choose some one other than themselves as a referent other as they direct their attention to objects and people in the environment.

Introverts, on the other hand direct their interest inwards or towards the inner world, with inner reality being of primary importance (Myers, 1998). They therefore direct their attention inwards and are frequently unaware of the objective environment ((Myers & Myers, 1995). Introverts can be described as reserved and questioning and they take time to pause and analyse when in an unfamiliar situation (Myers & Myers, 1995). They are people of idea and abstract invention, who go from considering to doing back to considering (Myers & Myers, 1995). They are often viewed as intense and passionate as they bottle up their emotions and keep them heavily guarded (Myers & Myers, 1995). Some of the characteristics associated with introversion are being drawn to the inner world, a preference for communicating by writing, being focused on in-depth interests, being private and contained and taking initiative when the situation or issue is very important to the individual (Myers, 1998).

The introverts preference for communicating by writing and their focus inwards may mean that they will not get an opportunity to have "voice" in a procedure, as they would be more inclined to take in the information being presented and going home and thinking the information through. This may lead to a delayed question or query.

The four psychological functions distinguish how an individual makes contact with their environment (Stone, 1998). Each of these functions may operate in an introverted or extroverted manner (Myers, 1998). Thinking and Feeling are the

functions that describe an individual's judgement activities, which describe the approach to resolutions the individual prefers to take (Carland & Carland, 1990).

Thinking (T) and *Feeling* (F) are both rational functions, as they require an act of reasoning (Stone, 1998). The rational functions look at how the individual makes decisions (Myers, 1998).

Thinking is a mode that links ideas together through making logical connections (Carland & Carland, 1990). The individual tends to rely on the principles of cause and effect and tries to remain impersonal (Carland & Carland, 1990). Thinking individuals value logic over sentiment, and are usually more impersonal (Myers & Myers, 1995). If they were forced to choose between being truthful or being tactful they would choose to be truthful (Myers & Myers, 1995). They are usually able to order data in a logical manner and avoid repetition of any facts (Myers & Myers, 1995). Some of the characteristics associated with Thinking are looking at the logical consequences of a choice or action, being analytical, using cause and effect reasoning, striving for an objective standard of truth and exhibiting fairness by wanting everyone to be treated as equals (Myers, 1998).

Feeling is the function of making decisions by weighing relative value issues (Carland & Carland, 1990). Feeling individuals tend to rely on an understanding of individual and group values and therefore tend to be more subjective (Carland & Carland, 1990).

Feeling individuals are usually more personal and are interested in people, they tend to be more tactful and are likely to agree with those around them (Myers & Myers, 1995). They are naturally friendly, whether sociable or not (Myers & Myers, 1995).

They usually find it difficult to decide where to start on a statement and often repeat facts or end up rambling with more detail than a thinker may want or feel necessary (Myers & Myers, 1995). Some of the characteristics associated with Feeling are looking at what is important to others and themselves when making a decision, being empathetic, being guided by personal values, striving for harmony and positive interaction and exhibiting fairness by wanting everyone to be treated as individual (Myers, 1998).

A Thinking individual, being more logical and rational in making decisions, may be more inclined to accept a decision if it is clearly explained to them and seems to be logical. They would also expect the same standard to apply to everyone. Feelers on the other hand would be inclined to accept a decision as just if they feel that it is in line with their own personal values. They would feel that it is important to treat peoples as individuals, with each case being independent of another. Feelers would also make their decisions based on what is important to them, so for example if recognition is important to an individual they may feel that verbal recognition in front of their colleagues is a just reward, whereas a Thinker may feel that their work made x amount of money for the company.

Sensing and Intuition are those functions, which govern individuals perceptive activities (Carland & Carland, 1990). *Sensing* (S) and *Intuition* (N) are irrational as they do not require and act of reasoning (Myers, 1998). The irrational functions look at how the individual prefers to take in information (Myers, 1998). Jung felt that individuals were effected by how they perceive the world and how they access

information as this in turn effects how they view their problems (Carland & Carland, 1990).

Sensing individuals prefer to stress the five senses and to them reality is only what can be seen touched or heard (Carland & Carland, 1990). Sensing individuals face life observantly and are immensely aware of the external environment (Myers & Myers, 1995). They are by nature generally contented and have a great capacity for enjoyment (Myers & Myers, 1995). They tend to focus on the present and develop their powers of observation and memory (Carland & Carland, 1990). Some of the characteristics associated with Sensing are taking information that is real and tangible, being oriented to present realities, being factual and concrete, and trusting experience (Myers, 1998).

Intuition is perception via the unconscious where information is given about future possibilities and the environment (Carland & Carland, 1990). Individuals in this mode tend to view things in terms of the whole and may overlook the details (Carland & Carland, 1990). Intuitive individuals are by nature initiators, inventors and promoters (Myers & Myers, 1995). They are better at perceiving possibilities, meanings and relationships (Carland & Carland, 1990). They have hunches and tend to perceive patterns in seemingly unrelated events (Carland & Carland, 1990). Some of the characteristics associated with Intuition are taking in information by seeing the big picture, focusing on the relationships and connections between facts, being oriented towards future possibilities and trusting inspiration (Myers, 1998).

Although not formally expounded by Jung, Myers (1980) feels that it is implied that there are two further functions that an individual may use (in Stone, 1998). They are Judgement (J) and Perception (P) and should not to be confused with the overall perception and judgement that the theory seeks to examine (Stone, 1998). These functions look at how the individual deals with the outer world (Myers, 1998). A judging individual is attuned to making decisions, seeking closure, planning operation or organising activities (Carland & Carland, 1990). Judging types tend to be decisive and like to live according to plans, standards and customs (Myers & Myers, 1995). Being rational they depend on reasoned judgements that may be their own or may be borrowed from another individual (Myers & Myers, 1995). They think and feel that they know what others ought to do in almost every situation and are not adverse to telling them (Myers & Myers, 1995). They take real pleasure in completing tasks and in that way getting them out of the way and off their minds (Myers & Myers, 1995). They also tend to be self-regimented, purposeful and exacting (Myers & Myers, 1995). Some of the characteristics associated with Judgement are liking to live in a planned, orderly manner, being systematic and methodical, and trying to avoid last-minute stress (Myers, 1998).

A judging individual does not respond well to change and may therefore initially feel that anything that brings about change is unjust or unfair and may therefore resist it. This would impact on their initial justice perception of any given situation as paramount to them in this decision would be the need for stability in order for them to remain systematic and orderly.

Perceiving individuals are attuned to information gathering (Carland & Carland, 1990). Perceiving individuals are curious by nature and like to live moment by moment and can therefore adjust themselves easily to the accidental and unexpected (Myers & Myers, 1995). They take pleasure in starting something new until the newness wears off (Myers & Myers, 1995). They are flexible, adaptable and tolerant (Myers & Myers, 1995). Some of the characteristics associated with Perceiving are being flexible and spontaneous, seeking to experience and understand life, rather than control it, and feeling energised by last- minute pressures (Myers, 1998).

In order to conduct research in the area of justice perceptions it is important to specify perceptions with regard to what aspect or thing in order to create a common situation within which the individuals may have justice perceptions. In doing this, the only variable that is not controlled for is the individuals personal differences, which is the object of this study. For this research the Employment Equity Act, 1998, was chosen as the vehicle for the research. By using this act each individual answered the questionnaires with reference to a single situation that has the same outcome for all South Africans, in that they are aware of the outcomes as they are clearly set out in the act.

2.3 Justice Perceptions of the Employment Equity Act, 1998

In the preamble of the act it is stated that “ as a result of apartheid and other discriminatory laws and practises, there are disparities in the employment, occupation and income within the national labour market, and that these disparities create such pronounced disadvantages for certain people that they cannot be redressed simply by repealing discriminatory law...” (Employment Equity Act, 1998). This serves to

explain the main function of the Act, which is to actively address these discrepancies through the implementation of affirmative action (AA), which is also provided for in the South African Constitution.

As Affirmative Action is the main tool that the EEA can use to rectify the discrepancies that exist due to the Apartheid era the act itself has become controversial in nature. The call for implementation of AA has led to great debate about how fair it is and has become a contentious issue at an individual, organisational and national level (Katz, 1999). Views on AA range from it being a conscious process of eliminating discrimination, rather than a process of furthering the interests of particular groups (Charlton and Van Niekerk, 1994), to AA being reverse discrimination and tokenism, as well as being demeaning for blacks and women who are labelled as AA appointments (IDASA, 1995). Affirmative Action is also an emotive topic for most working South Africans. A white employee may see it as the end of his/her career and a black employee may see it as a necessary to redress past wrongs (Jeffery, 1996).

This contentiousness is even evident in the way theorists define what affirmative action is. For example Innes (1994) defines affirmative action as a method of proactively addressing those disadvantages that certain sectors of the community or population have experienced in the past (Cited in Innes, Kentridge and Perold, 1994). While writers such as Shubane (1995) and Caldwell (1992) state that it differs very slightly from apartheid as it shows a preference to one group at the expense of another, with the groups being defined in terms of race or ethnicity (Cited in Katz, 1999).

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The fact that the EEA will affect everyone can not be denied and it is therefore obvious that this is an area that is worthy of research. By understanding how the act is perceived organisations that implement AA can try to minimise the negative effects that it may have on the company by dealing with those areas of the act that may be viewed negatively by their employees. The EEA was not however the main focus of this research but rather served as a vehicle in aiding the understanding of how an individual's personality effects their justice perceptions, and in doing so useful information about the perception of the EEA may also be disclosed.

2.4 Aim and Rational for current research

From the above discussion it can be seen that research in justice perceptions has traditionally focused on the outcomes and procedures that are used, and those parts of the individual, that are an intrinsic part of them, that may effect how they perceive something as being just or not have not been explicitly examined. Katz (1999) noted that “ it is clear that the characteristics of the individual, such as personality, cultural background and intelligence, need to be looked at as potentially important variables in justice perceptions” (pg. 19).

If one considers Adam's Equity theory, it is put forward that an individual will feel that they are treated fairly when they receive that which *they feel* they deserve (Nunns, 1994). This shows that this decision is not based on normative standards and it also points to the importance of understanding what variables within the individual may explain the differences between the justice perceptions of two individuals.

Looking at Jung's theory of Personality Typologies it was made clear through out the section that there seem to be very clear links between an individual's typology and their possible justice perceptions. Jung's theory states that an individual's personality governs how they perceive the world and how they make decisions. This in itself is the very essence of how a justice perception is made. If for example an individual is extroverted in nature then their focus is on the outer world and this focus may effect what information they may pay attention to, such as what other individuals are doing, whereas an introvert would focus more on changes in their own behaviour.

The aim of this study is therefore to test if these seemingly logical connection between an individuals typology and justice perceptions do exist and in that way add to the limited knowledge of how individual characteristics may effect an individual's justice perceptions.

2.4.1 Research Questions and Hypotheses

From the aim of this study the research question becomes apparent. Is there a relationship between an individual's psychological type and their justice perceptions of the EEA?

The hypotheses are: -

1. There is a relationship between an individual's preference between extroversion and introversion and their justice judgements across all three aspects of justice perceptions of the EEA.

2. There is a relationship between an individual's preference between thinking and feeling and their justice judgements across all three aspects of justice perceptions of the EEA.
3. There is a relationship between an individual's preference between sensing and intuition and their justice judgements across all three aspects of justice perceptions of the EEA.
4. There is a relationship between an individual's preference between judgement and perceiving and their justice judgements across all three aspects of justice perceptions of the EEA.

Chapter 3: Methodology

This chapter provides information on the methods used and procedures followed during the course of this research. It included biographical information on participating subjects, the design of the study, the nature and statistical history of the instruments used for data collection and how the data was analysed.

3.1 Methodology

As it is not possible or ethical to manipulate an individual's personality type and their justice perceptions of the EEA, the only research design which would be appropriate for this study, is a non-experimental design. In a non-experimental design there is no manipulation or control of the independent variable (Rosenthal & Rosnow, 1991).

The design used in this study will be a exploratory, correlational, cross-sectional design, with a single measurement of each variable being taken at one given time (Breakwell, Hammond and Fife-Schaw, 1995). This type of design seeks to show whether or not there are any associations between variables, rather than a direct causal relationship (Breakwell, Hammond and Fife-Schaw, 1995). The sample is also regarded as being a cross-section of the population under study and therefore makes it possible to make comparisons between subgroups (Breakwell, Hammond and Fife-Schaw, 1995).

This study is also exploratory in nature, as research into this specific area of justice perceptions has not been conducted before and the aim of this research is to identify if there is in fact a relationship between the specified variables.

3.2 Procedure

The present study was conducted in the head office of a large South African organisation. The organisation supplies financial services for the man on the street as well as for corporations. Their main service is the financing of movable assets. They have various branches throughout South Africa, however the Head Office is based in Johannesburg.

Permission was obtained from the Human Resources General Manager once the proposal was presented to the directors of the company. The study was limited to the head office as the organisation was conducting its own internal audits within the various branches at the same time and it was felt that the two studies would effect each other.

As the operating language of the company was English the instructions and scales were given in English, with the individual being able to request the Justice Scale in another language if they felt it necessary. However none were requested and therefore all the scales were completed in English.

The questionnaires were distributed to 6 sections within the company. The heads of each division were informed about the study in advance. The questionnaire packages were then given either to the head of the department or the departmental secretary for distribution. Attached to each package was an envelope within which to place the completed questionnaires and clearly marked sealed boxes were placed within each

department for the individual to return the questionnaires. The limitations of this method of data collection will be discussed in detail in chapter 5.

Of the 260 questionnaires distributed only 75 were returned. This represents a 28.85% response rate. Of those returned 7 were unusable, either as a result of being incomplete to incorrectly filled out. Such poor results could be due to the sensitive nature of Employment Equity within South Africa as it is a very emotive issue.

Employees may have felt that the questions being asked were of a too sensitive nature or that even though confidentiality was guaranteed that the raw data would be made available to the company. The low response rate could also stem from the individuals not understanding that they were rating the Act itself rather than employment equity within the company and once again they may not have felt secure in the guarantee of confidentiality. The length of the questionnaire package may also have effected the response rate as the employees may have felt that it would take up too much of their time. A final possibility is that individual's may not wish to complete a personality test as they may feel that it reveals too much of themselves and would be violating their privacy.

3.3 Sample

The sample was taken from a single company to eliminate extraneous variables and went across all levels of the company, from management to base employees and is a convenience sample, with all participants being volunteers. The limitations of this method of sampling will be discussed in detail in chapter 5. They were literate and able to understand English, as this is the only one of the eleven official languages that the Jung Type Indicator (JTI) was available in. They were however given the choice

of two additional languages, namely Zulu and Southern Sotho, for the justice measures.

The biographical breakdown of the sample is summarised in Table One and Table Two. From these tables it is seen that the majority of the sample were white, male, English speaking managers. With the average age being between 36 years old and 37 years old. The two most prominent positions were managers and senior administrators. There was only a small difference in subjects in the two educational levels.

Although this sample is not representative of the entire company the biographical breakdown is more representative of the head office of the company. For age, race and gender the distribution across the groups were almost even, which is important for the sample generalisability. However race, position and language are not evenly distributed and this will effect the generalisability of the sample. This will be discussed in more detail in chapter 5.

3.4 Independent variables

The independent variables in this study are the polarities of Jung's theory of psychological type. They are independent, as they can in no way be manipulated (Rosenthal and Rosnow, 1991). However, as this is not a causal research design but rather it is looking for a relationship, there is no true independent variable. This is due to fact that the results will never show a direction for the relationship and therefore there is no way in determining which variable affects the other variables.

Table One- Biographical Breakdown of Sample- Age

	N	Mean	Range	Minimum	Maximum	Std. Deviation
Age	68	36.574	41.0	19.0	60.0	9.782

Table Two- Biographical Breakdown of Sample - Gender, Race, Position,

Education and Language

Variable	N	Frequency	Percent
Gender:	68		
Male		38	55.9
Female		30	44.1
Race:	68		
White		56	82.3
Black		8	11.8
Other		4	5.9
Position:	65		
Managers		24	36.9
Senior Admin.		14	21.5
Junior Admin.		8	12.3
Consultants		2	3.1
Contractors		5	7.7
Programmers		9	13.9
Team Leaders		3	4.6
Education Level:	67		
Grade 10 - 12		35	52.2
Tertiary		32	47.8
Home Language:	68		
English		38	55.8
Afrikaans		22	32.4
Black Language		8	11.8

3.5 Dependent Variables

A dependent variable is defined as being the outcome that the researcher is interested in (Rosenthal and Rosnow, 1991). Therefore the dependent variables in this study are the three aspects of justice perceptions, namely distributive, procedural and interpersonal justice perceptions.

3.6 Measures

3.6.1 Jung Type Indicator

The JTI is a personality assessment indicator based on the psychological theory of Carl Jung, i.e. that of psychological type (Psytech, 2000a). It has been developed as an alternative to the Myers-Briggs Type Indicator (Psytech, 2000a). The JTI classifies an individual's type and gives scores for each of the type dimensions in order to offer a more detailed description of the individual's personality (Psytech, 2000a). The JTI is used to indicate an individual's preference for introversion (I) or Extroversion; sensing (S) or intuitive (N) perception; feeling (F) or thinking (T); and perception (P) or judgement (J) (Psytech, 2000b).

The JTI consists of 60 items, which are divided into four sub-scales of 15 items each. Each sub scale is used to determine an individual's preference e.g. E-I. (Psytech, 2000b). The items are all 5 point likert - type questions (Psytech, 2000b).

The JTI sub-scales have consistently had high internal reliabilities of $\alpha = .75$ and above, over a number of different samples (Psytech, 2000b). For the E-I sub scale α had a range of .83 - .88; for the S-N sub scale α had a range of .75 - .82; for the T-F sub scale α had a range of .75 - .82; and for the J-P sub scale α had a range of .75 -

.82 (Psytech, 2000a). However these reliabilities were not conducted on a South African Sample. In a recent study conducted by Psytech South Africa the reliabilities of each sub-scale were calculated on a sample of 92 South African subjects (Tredoux, 2000). The reliabilities were still very high. For the EI sub-scale $\alpha = .84$, for the SN sub-scale $\alpha = .82$, for the TF sub-scale $\alpha = .74$, and for the JP sub-scale $\alpha = .83$ (Tredoux, 2000). For the present study the reliabilities of the JTI were $\alpha = .83$ for the EI sub-scale, $\alpha = .79$ for the SN sub-scale, $\alpha = .68$ for the TF sub-scale and $\alpha = .82$ for the JP sub-scale. The SN sub-scale reliability is below the recommended alpha for psychological research, however it is sufficiently high enough as not to cause any problems with the present research.

Concurrent validity has also been established with regard to the Myers-Briggs Type Indicator, which is also based on Jung's Typology (Psytech, 2000b). It has been found that all of the sub scales of the JTI are strongly correlated with their respective counter parts in the MBTI and that these correlations have been over .70 for the uncorrected correlation and .93 for the corrected correlation (Psytech, 2000b). Factor Analysis of the two scales has also been conducted and has indicated that the two scales load in the same manner across the four different components (Psytech, 2000b).

3.6.2 Justice Perceptions of the Employment Equity Act

The questionnaire starts by giving a brief explanation of the EEA. It consists of three sub- scales, which measure the three different aspects of justice perceptions in relation to the EEA, namely that of distributive, procedural and interpersonal justice perceptions (Katz, 1999).

The total scale is 18 items, of which 5 examine distributive justice, 9 examine procedural justice and 4 examine interpersonal justice (Katz, 1999). Katz (1999) reported an internal consistency of .94 for the overall justice scale. Both the procedural and interpersonal sub-scales had Cronbach alpha's over .90 (.91 and .93 respectively) and the distributive sub-scale had a Cronbach alpha of .77 (Katz, 1999). This statistical data was obtained using a South African sample. Katz (1999) also conducted a factor analysis to verify the validity of the Justice Perceptions scale. Principal Component Analysis of the scale confirmed that the scale measured three factors with eigenvalues greater than 1. This indicated that the scale was measuring the three aspects of Justice

The current studies scale reliabilities were $\alpha = .56$ for the Distributive Justice sub-scale, $\alpha = .92$ for the Procedural Justice sub-scale and .79 for the Interpersonal Justice sub-scale. The Justice Perceptions scale had an overall reliability of $\alpha = .92$. It is important to note that one of the sub-scales reliabilities is well below the recommended alpha for psychological research. The implications of the low alpha are discussed in chapter 5.

3.7 Statistical Analysis

Apart from the main analysis of the research it is important to note that the demographic variable of race is an important issue when examining the EEA, as historically discrimination was based on race. Therefore it is plausible to assume that it will impact on the individuals justice perceptions. However pre-existing differences due to race were checked for when the biographical information was examined.

3.7.1 Cronbach's Alpha (Reliability)

In order to examine the internal reliability of the scales used, Cronbach's Alpha was calculated. In estimating the reliability of a scale its viability as a measurement device is being examined (Breakwell et al, 1995). If it is found that the reliability is low it can be assumed that the scale does not measure anything with any degree of credibility (Breakwell et al, 1995). By studying reliability the researcher is able to evaluate whether a low validity might be due to reliability that is too low and could be improved by adding items or judges (Rosenthal and Rosnow, 1991). In order to do this, it is important to establish what is the acceptable range of reliability. Without reliability, a test or scale can not be valid, as reliability precedes validity (Rosenthal and Rosnow, 1991).

Rosenthal and Rosnow (1991) suggest that for the purposes of clinical testing .85 or higher would indicate a dependable psychological test. However, they do allow for a value of .74 as being acceptable as well (Rosenthal and Rosnow, 1991). Breakwell et al (1995) state that from examining Nunnally (1978, cited in Breakwell et al, 1995) a test can be assumed to be sufficiently reliable as a research tool if its reliability coefficient is greater than .7.

Cronbach Alpha's were also run on The Justice Perceptions scale to test their reliabilities across race. This was done in order to check to see if there were any differences across the racial groups, as race is an important variable in South Africa due to the apartheid era. Race is also important as it is used to define which one of the previously disadvantaged group's in the EEA and thus defines on whose behalf the act can positively discriminate. Differences in reliability across racial groups may also

indicate a language barrier. It was necessary to do this as although the Justice Scale was available in African languages none were requested.

The reliability of the Jung Type Indicator was also tested across language and educational levels. It was important to test across language as the JTI was only available in English and it is therefore important to see if there is a language barrier. Differences across the educational levels may also indicate a barrier in how the individual interprets the questionnaire or the level of English that they may understand.

3.7.2 Correlation

The main research question of whether or not a relationship exists between an individual's personality and their justice perceptions of the EEA was tested using simple correlations. Correlation has been chosen as it enables the researcher to see if there is a relationship, as well as identifying the strength of that relationship (McCall, 1994). The correlation also yielded information with regards to the effects of the strength of individual's preference in relation to their justice perceptions of the EEA.

The correlation coefficient is a number that reflects the degree of the relationship between two variables (McCall, 1994). It does not represent the extent of their causal relationship, therefore correlation suggests association but not necessarily causality (McCall, 1994).

Pearson's Product- Moment Correlation Coefficient (*Pearson r*) will be used as the data that was yielded was interval in nature and can therefore be examined using a

parametric test (Howell, 1997). The Pearson r can take a value between +1.00 and – 1.00, a value of .00 meaning that there is no linear relationship between the two variables (Rosenthal and Rosnow, 1991). A value of ± 1.00 meaning that there is a perfect linear relationship, while the positive and negative signs represent the form of that relationship (Rosenthal and Rosnow, 1991). Therefore the closer the coefficient is to 1.00, whether it is positive or negative the stronger the linear relationship and that changes in one variable will be better able to predict changes in the other variable (Rosenthal and Rosnow, 1991). R^2 or the coefficient of determination can also be used to explain the proportion of variance that is shared between the two variables (Rosenthal and Rosnow, 1991). In other words, for this particular research r^2 will explain the proportion of variance in the Justice Perceptions scores that is explained by the scores on the JTI.

Correlations were also used to see if there were any pre-existing differences in the data due to age. This was done as for this study age was measured as a continuous variable rather than in age categories (Rosenthal and Rosnow, 1991).

3.7.3 T tests

A formal definition of a t test is that it is “a test of significance employed to judge the tenability of the null hypothesis of no relation between two variables” (Rosenthal and Rosnow, 1991, pg. 632). In other words it is a test of association between two variables, and in this case it is being used to see if there is a relationship between any of the demographic information and the scores on the JTI or the scores of the Justice Perceptions scale.

There are three assumptions that will need to be tested before a t test can be carried out, namely, Independence, Homogeneity of Variance and Normality (Rosenthal and Rosnow, 1991). Independence refers to the fact that the samples must be independent of one and other (Rosenthal and Rosnow, 1991). Homogeneity refers to the fact that the samples sizes and variances must be nearly equal (Rosenthal and Rosnow, 1991). Normality refers to the fact that the samples must have normal distribution (Rosenthal and Rosnow, 1991).

T tests were conducted on gender and education. For the Justice Perceptions Scale an independent sample t-test (t-statistic) was used. This test allowed for the examination of the differences between the means of two independent groups (Howell, 1993), the groups being determined by various biographical variables. As the JTI did not yield interval data the non-parametric alternative was used, namely the Mann-Whitney U-test (McCall, 1994). An interval scale being a scale that has mutually exclusive and exhaustive categories which can be ranked with reference to some external characteristic, in such away that one category can be regarded as better than another, or as being more of something than another (McCall, 1994; Breakwell, Hammond, and Fifer-Schaw, 1995). However unlike ordinal scales it has equal intervals between each category (Breakwell, Hammond, and Fifer-Schaw, 1995)

3.7.4 ANOVA

The Analysis of Variance (ANOVA) is similar to a t test in that it allows the researcher to examine any differences between or among sample means, however unlike the t test it does not impose a restriction on the number of means or samples (Howell, 1997). Once again the same three assumptions as the t test apply, namely,

homogeneity of variance, normality and independence (Howell, 1997). However, in practise this statistical procedure is very robust especially in terms of the normality assumption (Howell, 1997). In general, if the populations can be assumed to be symmetric, or at least similar in shape, and the largest variance is no more than four times the smallest, then the ANOVA is most likely valid (Howell, 1997).

ANOVA's were conducted on the respondents' race, position and home language. Once again the non-parametric equivalent of the ANOVA, namely the Kruskal-Wallis test was utilised for the JTI as it yielded categorical data rather than interval data. For this test the scale must simply be ordinal (McCall, 1994).

3.7.5 Scatterplots

Scatterplots were generated for the relationship between an individual's personality and their justice perceptions, along each racial category. Scatterplots are a two dimensional representation of a three dimensional relationship, and can be used to identify outliers (Rosenthal and Rosnow, 1991). They also enable the researcher to see how close to the best line of fit the observations are, which is an indication of the strength of the relationship (Rosenthal and Rosnow, 1991).

Chapter 4: Results

4.1 Scale Reliabilities (Cronbach α)

The reliabilities of the two scales that were utilized in this study were tested using Cronbach Alpha and have been reported in the previous chapter. However it is important to note that in one of the sub scales of the Justice Perceptions scale, namely the Distributive Justice sub scale, the reliability was low and therefore further analysis was conducted. An item analysis was conducted and the results are reported in Table Three. From the table it is seen that if Question 1 were to be removed then the sub scale reliability would increase to .5897. Although this still places it well below the recommended .7 that was recommended by Nunnally as previously mentioned in Chapter Three. This is also considerably lower than the .77 α that was reported by Katz (1999). Possible explanations for this decrease in reliability will be examined in the following chapter.

Reliabilities on the Justice Perceptions scale were also run on the sample once they were divided into groups according to racial categories. This essentially became Whites and Blacks as the Black group and the Other Group was combined in the analysis. The reliability of the Distributive Justice Sub-scale dropped even lower on the Black Group to .28, with items 1 and 3 being very weak and if item 1 were removed the α would become .52. The Procedural Justice α on the Black group was exceptionally high with α being .95 and Interpersonal Justice also remained high at $\alpha = .81$. In the interpersonal Justice sub-scale the item that correlated the highest and in that way became almost the anchor item is item 23 (item-total correlation = .895).

The reliability analysis of the Justice Perceptions scale for the White Group showed that the α on the Distributive Justice Scale dropped slightly to .55. On the Procedural Justice Scale the α remained high (Alpha = .89) and the interpersonal Justice Sub-scale it also dropped slightly to α = .74. However these are all still high enough to be considered reasonably reliable.

The reliability of the JTI across language showed that for the Non-English language group the reliability on EI (α = .825) and TF (α = .67) did not change all that much from their reliabilities with the entire sample. However the α dropped .12 for SN to .68 and .7 for JP to .75. For SN the weak items were item 2, 6 and 54. They were not weak on the English group or on the entire sample. On JP the weak items were items 24, 28, 32 and 48. Items 28 and 48 were only weak on the Non-English group. The **English group's** reliabilities stayed relatively the same either increasing by .2 or .4. EI was .84, SN was .84, TF was .70 and JP was .86. There were no weak items in any of the sub-scales for the English-speaking group that would change the reliabilities if they were removed.

In the reliability analysis of the JTI across education it was seen that for those with no higher than Grade 12 education level the reliability for EI was .83, which is relatively unchanged from the overall group. The reliability for SN was .77, which has dropped two from the overall reliability. For TF the reliability was .61, which dropped .7 from the overall group. On this sub-scale items 3, 7, 35, 39 and 59 were weak. And finally on the JP sub-scale the reliability was .84, which is .3 higher than for the overall group. For the group with tertiary education the reliability on EI was .83, which is relatively the same as for the entire group. On SN the reliability was .82, which is an

Table Three –Distributive Justice

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 1	8.4154	5.0591	.1613	.5897
Question 2	8.6615	4.0399	.4344	.4395
Question 3	8.7231	4.2659	.3362	.4995
Question 16	8.7692	4.0553	.3520	.4902
Question 17	9.4923	4.5976	.3415	.4997

Reliability Coefficients

N of cases = 65

N of Items = 5

Alpha = .5630

increase of .2. On TF the reliability was .71, which is .3 higher than the overall group, and finally on JP the reliability was .77, which is .5 less than the overall reliability.

See Appendix 5 for all the Cronbach Alpha test results.

4.2 Descriptives

The descriptives of each scale are summarized in Table Four and Table Five. From Table Four it is seen that the sample falls roughly in the middle for all of the JTI sub-scales. However the sample seems to lean very slightly toward Intuition, Sensing, Feeling and Judging. These are not very clear preferences as the differences between each dichotomy are very slight. From Table Five it is seen that the sample falls roughly in the middle for all three aspects of Justice. None of the scales have means that are very high or very low.

4.3 Correlations

From Table Six it is seen that there are no significant relationships between the personality sub-scales and the Justice Sub-scales. However when the correlation was run again and missing data was deleted case wise a significant relationship was found between Judging-Perceiving and Interpersonal Justice ($p = .25$, significant at $\alpha = 0.05$). Correlations were also run using the individual Justice Items and the JTI sub-scales. From this it was seen that there is a relationship between Sensing-Intuition and items 14 ($p = .274$, $\alpha = 0.05$) and item 15 ($p = .291$, $\alpha = 0.05$) and between Judging and Perceiving and item 18 ($p = .272$, $\alpha = 0.05$) on the Justice Perceptions scale.

Table Four - Descriptive Statistics of the JTI

	Mean	Std. Deviation	Minimum	Maximum
EI	33.412	9.504	13	51
SN	29.559	8.698	14	52
TF	33.971	6.995	17	50
JP	23.765	8.936	5	45

Table Five - Descriptive Statistics of the Justice Perceptions Scale

	Mean	Std. Deviation	Minimum	Maximum
Distributive	11.02	2.47	5	15
Procedural	16.70	6.05	9	27
Interpersonal	7.59	2.72	4	12

Table Six

Correlation Matrix - Personality Sub-Scales and the JTI

		Dist. Just.	Proc. Just	Inter. Just.	EI	SN	TF	JP
Dist. Just.	Pearson Corr.	1.00						
	Sig. (2 tailed)	-						
Proc. Just.	Pearson Corr.	.648**	1.00					
	Sig. (2 tailed)	.000	-					
Inter. Just.	Pearson Corr.	.608**	.777**	1.00				
	Sig. (2 tailed)	.000	.000	-				
EI	Pearson Corr.	.038	.009	.070	1.00			
	Sig. (2 tailed)	.760	.944	.573	-			
SN	Pearson Corr.	.028	.086	.207	-.117	1.00		
	Sig. (2 tailed)	.822	.484	.090	.344	-		
TF	Pearson Corr.	-.058	-.105	-.046	-.133	.198	1.00	
	Sig. (2 tailed)	.639	.392	.711	.279	.105	-	
JP	Pearson Corr.	.120	.043	.206	-.138	.375**	.140	1.00
	Sig. (2 tailed)	.331	.727	.092	.263	.002	.255	-

* Corr. is sign. at 0.05 level (2-tailed).

** Corr. is sign. at 0.01 level (2-tailed)

When Correlations were run using the individual Justice Perception Items it was found that the different racial groups had significant correlations with different items. The White group had significant correlations between EI and item 16 on the Justice Scale ($P = .29, \alpha = 0.05$), between SN and item 8 ($P = -.33, \alpha = 0.05$), between TF and item 16 ($P = -.29, \alpha = 0.05$) and between JP and items 14 ($P = .27, \alpha = 0.05$) and 18 ($P = .27, \alpha = 0.05$). The Black Group had significant correlations between EI and item 6 ($P = -.66, \alpha = 0.05$) and item 14 ($P = -.73, \alpha = 0.05$), and between JP and item 17 ($P = .84, \alpha = 0.05$).

4.4 The Jung Type Indicator

4.4.1 Age

The correlation matrix for age is shown in Table Seven. From the table it is clear that the relationship between age and the Sensing-Intuition sub-scale of the JTI is significant at a 0.05 level (2-tailed). Age was not significantly correlated to any of the other sub-scales, however many of the relationships although not significant were negative in nature.

4.4.2 Race

From the Kruskal-Wallis test it was clear that there was no differences across the means of the JTI sub-scales in the different race groups. The results are summarized in Table Eight. If the mean ranks are examined it is seen that the variance between the races is not very high. For EI the individuals who were classified as other, which included Coloured, Indian and any other race besides White and Black, scored higher than the other races, with Blacks scoring the lowest. For SN Blacks generally scored

Table Seven

Correlation Matrix - Age and the JTI

		Age	EI	SN	TF	JP
Age	Pearson Corr.	1.000				
	Sig. (2 tailed)	—				
EI	Pearson Corr.	.074	1.000			
	Sig. (2 tailed)	.550	—			
SN	Pearson Corr.	-.250*	-.117	1.000		
	Sig. (2 tailed)	.040	.344	—		
TF	Pearson Corr.	-.140	-.133	.198	1.000	
	Sig. (2 tailed)	.256	.279	.105	—	
JP	Pearson Corr.	-.203	-.138	.375**	.140	1.000
	Sig. (2 tailed)	.097	.263	.002	.255	—

* Corr. is sign. at 0.05 level (2-tailed).

** Corr. is sign. at 0.01 level (2-tailed).

Table Eight- Kruskall Wallis Test

Ranks

	Race	N	Mean Rank
IE	1.0	56	34.42
	2.0	8	30.63
	3.0	4	43.38
	Total	68	
SN	1.0	56	32.40
	2.0	8	45.38
	3.0	4	42.13
	Total	68	
TF	1.0	56	33.23
	2.0	8	36.63
	3.0	4	48.00
	Total	68	
JP	1.0	56	34.29
	2.0	8	35.06
	3.0	4	36.25
	Total	68	

Test Statistics

Grouping Variable: Race

	EI	SN	TF	JP
Chi-Square	1.117	3.656	2.195	.044
Df	2	2	2	2
Asymp. Sig.	.572	.161	.334	.978

higher, with Whites scoring the lowest. For TF and JP individuals classified as other scored the highest and Whites scored the lowest.

4.4.3 Language

Once again the Kruskal-Wallis test indicated that there were no significant differences in the means of the JTI across the language groups. This is shown in Table Nine. If the mean ranks are examined it is seen that on EI Afrikaans individuals scored higher with Black Languages scoring the lowest. However these differences were not significant. For SN individuals who spoke a Black Language scored the highest and English speaking individuals the lowest. For TF once again individuals who spoke a black language scored higher than the other languages, with individual who spoke Afrikaans scoring the lowest. And finally for JP Afrikaans speaking individuals scored higher than the others with English speaking individuals scoring the lowest. However none of these differences were significant.

4.4.4 Position

From the Kruskal-Wallis test it was seen that there were no significant results. This means that there were no significant differences across the scores of the JTI in terms of position. Although there are what seems to be large difference between certain positions mean ranks, for example position 4 of SN and position 7 of SN these differences are not significant. The rank order can be obtained from Table Ten.

Table Nine - Kruskal Wallis Test

Ranks

	Language	N	Mean Rank
EI	1.0	38	33.71
	2.0	22	36.57
	3.0	8	32.56
	Total	68	
SN	1.0	38	32.76
	2.0	22	34.84
	3.0	8	41.81
	Total	68	
TF	1.0	38	35.09
	2.0	22	31.57
	3.0	8	39.75
	Total	68	
JP	1.0	38	33.83
	2.0	22	35.84
	3.0	8	34.00
	Total	68	

Test Statistics

Grouping Variable: Language

	EI	SN	TF	JP
Chi-Square	.379	1.398	1.086	.150
Df	2	2	2	2
Asymp. Sig.	.827	.497	.581	.928

Table Ten- Kruskall Wallis Test

Ranks

	Position	N	Mean Rank
EI	1.0	24	31.92
	2.0	14	31.89
	3.0	8	21.56
	4.0	2	23.75
	5.0	5	33.50
	6.0	9	48.00
	7.0	3	37.67
	Total	65	
SN	1.0	24	27.85
	2.0	14	29.89
	3.0	8	45.25
	4.0	2	54.00
	5.0	5	38.60
	6.0	9	36.72
	7.0	3	21.50
	Total	65	
TF	1.0	24	25.94
	2.0	14	39.25
	3.0	8	43.00
	4.0	2	29.50
	5.0	5	49.30
	6.0	9	26.39
	7.0	3	28.67
	Total	65	
JP	1.0	24	34.88
	2.0	14	31.68
	3.0	8	32.56
	4.0	2	46.75
	5.0	5	33.60
	6.0	9	31.83
	7.0	3	18.67
	Total	65	

Table Ten- cont.

Test Statistics

Grouping Variable: Position

	EI	SN	TF	JP
Chi-Square	9.406	9.912	12.205	3.135
Df	6	6	6	6
Asymp. Sig.	.152	.128	.058	.792

Key to table:

Position 1 = Managers

Position 2 = Senior Administration

Position 3 = Junior Administration

Position 4 = Consultants

Position 5 = Contractors

Position 6 = Programmers

Position 7 = Team Leaders/ Project Managers/ Supervisors

4.4.5 Gender

The Mann-Whitney test indicated that there were no significant results, which means that there were no significant differences in the results of the scores on the JTI in terms of the individual's gender. Once again the rank order can be seen on Table Eleven.

4.4.6 Education

The final biographical aspect that was examined in terms of the scores on the JTI, was that of Education. Once again using the Mann-Whitney test, which is the non-parametric version of the two independent samples T - test was used. It was found that there was a significant relationship between an individual's education level and how they scored on the Thinking-Feeling sub-scale of the JTI ($p = .028$, $\alpha = .005$). The results are summarized in table Twelve. Those individuals who have some form of tertiary education score lower on the Thinking-Feeling sub-scale than those who have only a grade 10 or 12. This means that individuals with a tertiary education are more thinkers than feelers and visa versa for those with an education of below or up to grade 12.

4.5 Justice Perceptions of the Employment Equity Act

4.5.1 Age

The correlation matrix of age and the Justice Perceptions scale is shown in Table Thirteen. From the table it is clear that there is no significant relationship between an individual's age and their score on the Justice Perceptions scale.

Table Eleven- Mann-Whitney Test

Ranks

	Gender	N	Mean Rank	Sum of Ranks
IE	Male	38	32.64	1240.50
	Female	30	36.85	1105.50
	Total	68		
SN	Male	38	37.99	1443.50
	Female	30	30.08	902.50
	Total	68		
TF	Male	38	32.11	1220.00
	Female	30	37.53	1126.00
	Total	68		
JP	Male	38	35.93	1365.50
	Female	30	32.68	980.50
	Total	68		

Test Statistics

Grouping Variable: Gender

	EI	SN	TF	JP
Mann-Whitney U	499.500	437.500	479.000	515.500
Wilcoxon W	1240.500	902.500	120.000	980.500
Z	-.872	-1.639	-1.126	-.674
Asymp. Sig. (2-tailed)	.383	.101	.260	.500

Table Twelve - Mann-Whitney Test

Ranks

	Education Level	N	Mean Rank	Sum of Ranks
IE	Grade 10-12	35	31.04	1086.50
	Tertiary	32	37.23	1191.50
	Total	67		
SN	Grade 10-12	35	33.51	1179.00
	Tertiary	32	34.53	1105.00
	Total	67		
TF	Grade 10-12	35	38.99	1364.50
	Tertiary	32	28.55	913.50
	Total	67		
JP	Grade 10-12	35	35.10	1228.50
	Tertiary	32	32.80	1049.50
	Total	67		

Test Statistics

Grouping Variable: Education Level

	EI	SN	TF	JP
Mann-Whitney U	456.500	543.000	385.500	521.500
Wilcoxon W	1086.5000	1173.000	913.500	1049.500
Z	-1.301	-.214	-2.195	-.484
Asymp. Sig. (2-tailed)	.193	.831	.028	.629

Table Thirteen

Correlation Matrix - Age and the Justice Perceptions of the Employment Equity Act

		Age	Dist.Jus.	Proc.Jus.	Inter.Jus.
Age	Pearson Corr.	1.000			
	Sig. (2 tailed)	—			
Dist.Jus.	Pearson Corr.	.005	1.000		
	Sig. (2 tailed)	.970	—		
Proc.Jus.	Pearson Corr.	-.081	.648**	1.000	
	Sig. (2 tailed)	.511	.000	—	
Inter.Jus.	Pearson Corr.	-.031	.608**	.777**	1.000
	Sig. (2 tailed)	.805	.000	.000	—

* Corr. is sign. at 0.05 level (2-tailed).

** Corr. is sign. at 0.01 level (2-tailed).

4.5.2 Race

One-way Analysis of Variance indicated that all three sub-scales were significant, which means that there are pre-existing differences on the Justice Perceptions scale due to race (See table Fourteen). For all three sub-scales of the Justice Perceptions scale the Levene's test indicated variance was normal. Post Hoc tests were run in order to determine which means were different. The Bonferroni test is more conservative (See Table Fifteen). The Bonferroni showed that the Distributive Justice means were significantly different between the White group and the Black group ($p=.004$, $\alpha = .05$). It also showed that there was a significant difference between the Procedural Justice mean of the White group and the Black group ($p=.000$, $\alpha = .05$). Finally it showed that on the Interpersonal Justice sub-scale that once again the White group was significantly different to the Black Group ($p=.000$, $\alpha = .05$).

4.5.3 Language

The One-way Analysis of Variance indicated that all three sub-scales were significant, which means that there are pre-existing differences on the Justice Perceptions scale due to Language (See table Sixteen). For all three sub-scales of the Justice Perceptions scale the Levene's test indicated variance was equal (See Table Seventeen). The Bonferroni showed that on all three sub-scales that individuals whose home language was a Black language were significantly different to those whose

Table Fourteen - Anova (Race)

		Sum Of	Mean	F	Sig.
		Squares	Square		
Dist.Just.	BetweenGroups	58.977	29.489	5.526	.006*
	Within Groups	346.841	5.336		
	Total	405.818			
Proc.Just.	BetweenGroups	507.657	253.828	8.476	.001*
	Within Groups	1946.433	29.945		
	Total	2454.090			
Inter.Just.	BetweenGroups	108.756	54.378	8.932	.000*
	Within Groups	395.714	6.088		
	Total	504.471			

* Results significant at $\alpha = .05$

Table Fifteen - Bonferroni Post Hoc Analysis on Significant ANOVA results (Race)

	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.
Procedural	1.00	2.00	-8.5144*	2.0683	.000
		3.00	7.2239	2.8321	1.000
	2.00	1.00	8.5144*	2.0683	.000
		3.00	-1.2905	3.3510	.104
	3.00	1.00	1.2905	2.8321	1.000
		2.00	-7.2239	3.3510	.104
Distributive	1.00	2.00	-2.9025*	.8731	.004
		3.00	-.4080	1.1955	1.000
	2.00	1.00	2.9025*	.8731	.004
		3.00	2.4944	1.4146	.248
	3.00	1.00	.4080	1.1955	1.000
		2.00	-2.4944	1.4146	.248
Interpersonal	1.00	2.00	-.39286*	.9326	.000
		3.00	-.9286	1.2770	1.000
	2.00	1.00	3.9286*	.9326	.000
		3.00	3.000	1.5109	.154
	3.00	1.00	.9286	1.2770	1.000
		2.00	-3.000	1.5109	.154

* Results significant at the $\alpha = .05$ level

Key: 1- Whites

2- Blacks

3- Others (Coloureds and Indians)

Table Sixteen- Anova (Language)

	Sum of	Mean	F	Sig.
	Squares	Square		
Dist.Just. BetweenGroups	82.692	41.346	8.317	.001
Within Groups				
Total				
Proc.Just. BetweenGroups	299.978	149.989	4.526	.014
Within Groups				
Total				
Inter.Just. BetweenGroups	56.121	28.061	4.068	.022
Within Groups				
Total				

$\alpha = .05$

Table Seventeen - Levene's Test of Homogeneity of Variance (Language)

	Levene's Statistic	Df1	Df2	Sig.
Distributive	2.400	2	65	.099
Procedural	.709	2	65	.496
Interpersonal	1.820	2	65	.170

home language was either English or an African language. The Bonferroni results are summarised on table Eighteen.

The Bonferroni test indicates that there is a significant difference between Black home language and English home language $p = .006$, with $\alpha = .05$, and between Black language and Afrikaans $p = .000$, with $\alpha = .05$, on the Distributive Justice sub-scale. There are also significant differences on the Procedural Justice sub-scale between the Black Home Language Group and the English group ($p = .022$, $\alpha = 0.05$), and the Black Language Group and the Afrikaans group ($p = .015$, $\alpha = 0.05$). Finally on the Interpersonal Sub-scale it indicates that there are significant differences between the Black Language Group and the English group ($p = .045$, $\alpha = .005$) and between the Black Language group and The Afrikaans Language Group ($p = .020$, $\alpha = 0.05$). This shows that on all three sub-scales the Black Language Respondents scored higher on average on the Justice Perceptions Scale. When the means of the groups were ranked for all three sub-scales Black Language Group were ranked as number 1, then, which includes English Language Group, and finally The Afrikaans Language Group. The means are summarised in table Eighteen.

4.5.4 Position

From the Anova table only one relationship was significant, that of Distributive Justice and Position ($p = .008$, $\alpha = 0.05$) (See Table Nineteen). The Levene's Test for homogeneity indicated that the variance was equal for all sub scales (See Table Twenty). Post Hoc tests were then run. (See Table Twenty One) The LSD indicated that Position One is significantly different to Position 4 ($p = .018$, $\alpha = 0.05$) and to

Table Eighteen - Post Hoc Tests (Language)

				Mean		
Dependent			(J) Lang	Differenc	Std.	
Variable		(I) Lang		e	Error	Sig.
				(I-J)		
Dist. Just.	Bonferroni	Black	English	2.8145*	.8673	.006
			Afrikaans	3.7529*	.9205	.000
Proc. Just	Bonferroni	Black	English	6.1895*	2.2393	.022
			Afrikaans	6.8864*	2.3767	.015
Inter. Just	Bonferroni	Black	English	2.5526*	1.0216	.045
			Afrikaans	3.0455*	1.0843	.020

*. The Mean difference is significant at the .05 level.

Table Nineteen- Anova (Position)

	Sum of	Mean	F	Sig.
	Squares	Square		
Dist.Just. BetweenGroups	98.109	16.352	3.228	.008
Within Groups				
Total				
Proc.Just. BetweenGroups	333.861	55.643	1.635	.154
Within Groups				
Total				
Inter.Just. BetweenGroups	78.751	13.125	1.887	.098
Within Groups				
Total				

$\alpha = .05$

Table Twenty - Levene's Test of Homogeneity of Variance (Position)

	Levene's Statistic	Df1	Df2	Sig.
Distributive	.798	6	58	.575
Procedural	.608	6	58	.723
Interpersonal	1.552	6	58	.178

Table Twenty - One - Post Hoc Tests (Position)

Dependent Variable		(I) Pos	(J) Lang	Mean Difference (I-J)	Std. Error	Sig.
Dist. Just.	LSD	1.0	2.0	1.2560	.7569	.102
			3.0	-.4397	.9188	.634
			4.0	4.0417*	1.6564	.018
			5.0	2.9417*	1.1064	.010
			6.0	-.8563	.8797	.334
			7.0	1.8750	1.3782	.179
	LSD	2.0	1.0	-1.2560	.7569	.102
			3.0	-.16956	.9975	.095
			4.0	2.7857	1.7013	.107
			5.0	1.6857	1.1726	.156
			6.0	-2.1123*	.9616	.032
			7.0	.6190	1.4319	.667
	LSD	3.0	1.0	.4397	.9188	.634
			2.0	1.6956	.9975	.0995
			4.0	4.4813*	1.7793	.015
			5.0	3.3813*	1.2831	.011
			6.0	-.4167	1.0936	.705
			7.0	2.3147	1.5237	.134
	LSD	4.0	1.0	-4.0417*	1.6564	.018
			2.0	-2.7857	1.7013	.107
			3.0	-4.4813*	1.7793	.015
			5.0	-1.1000	1.8830	.561
			6.0	-4.8980*	1.7594	.007
			7.0	-2.1667	2.0545	.296
	LSD	5.0	1.0	-2.9417*	1.1064	.010
			2.0	-1.6857	1.1726	.156
			3.0	-3.3813*	1.2831	.011
			4.0	1.1000	1.8830	.561
			6.0	-3.7980*	1.2553	.004
			7.0	-1.0667	1.6436	.519
	LSD	6.0	1.0	.8563	.8797	.334
			2.0	2.1123*	.9616	.032
			3.0	.4167	1.0936	.705
			4.0	4.8980*	1.7594	.007

			5.0	3.7980*	1.2553	.004
			7.0	2.7313	1.5004	.074
	LSD	7.0	1.0	-1.8750	1.3782	.179
			2.0	-.6190	1.4319	.667
			3.0	-2.3147	1.5237	.134
			4.0	2.16667	2.0545	.296
			5.0	1.0667	1.6436	.519
			6.0	-2.7313	1.5004	.074
Proc. Just.	LSD	1.0	2.0	1.7440	1.9618	.378
			3.0	-.5547	2.8315	.141
			4.0	2.9583	4.2933	.494
			5.0	4.4583	2.8677	.125
			6.0	-2.7639	2.2801	.230
			7.0	-1.2730	3.5723	.723
	LSD	2.0	1.0	-1.7440	2.5854	.378
			3.0	-5.2988*	1.9618	.045
			4.0	1.2143	4.4097	.784
			5.0	2.7143	3.0392	.375
			6.0	-4.5079	2.4923	.076
			7.0	-3.0171	3.7113	.420
	LSD	3.0	1.0	3.5547	2.3815	.141
			2.0	5.2988*	2.5854	.045
			4.0	6.5131	4.6118	.163
			5.0	8.0131*	3.3256	.019
			6.0	.7908	2.8346	.781
			7.0	2.2817	3.9493	.566
	LSD	4.0	1.0	-2.9583	4.2933	.494
			2.0	-1.2143	4.4097	.784
			3.0	-6.5131	4.6118	.163
			5.0	1.5000	4.8806	.760
			6.0	-5.7222	4.5602	.215
			7.0	-4.2313	5.3252	.430
	LSD	5.0	1.0	-4.4583	2.8677	.125
			2.0	-2.7143	3.0392	.375
			3.0	-8.0131*	3.3256	.019
			4.0	-1.5000	4.8806	.760
			6.0	-7.2222*	3.2538	.030
			7.0	-5.7313	4.2602	.184
	LSD	6.0	1.0	2.7639	2.2801	.230

			2.0	4.5079	2.4923	.076
			3.0	-.7908	2.8346	.781
			4.0	5.7222	4.5602	.215
			5.0	7.2222*	3.2538	.030
			7.0	1.4909	3.8890	.703
	LSD	7.0	1.0	1.2730	3.523	.723
			2.0	3.0171	3.7113	.420
			3.0	-2.2817	3.9493	.566
			4.0	4.2313	5.3252	.430
			5.0	5.7313	4.2602	.184
			6.0	-1.4909	3.8890	.703
Inter. Just.	LSD	1.0	2.0	.1905	.8869	.831
			3.0	-1.6667	1.0767	.127
			4.0	1.3333	1.9470	.495
			5.0	2.133	1.2965	.105
			6.0	-1.8889	1.0308	.072
			7.0	.3333	1.6150	.837
	LSD	2.0	1.0	-.1905	.8869	.831
			3.0	-1.8571	1.1688	.118
			4.0	1.1429	1.9936	.569
			5.0	1.9429	1.3740	.163
			6.0	-2.0794	1.1268	.070
			7.0	.1429	1.6779	.932
	LSD	3.0	1.0	1.6667	1.0767	.127
			2.0	1.8571	1.1688	.118
			4.0	3.0000	2.0850	.156
			5.0	3.8000*	1.5035	.014
			6.0	-.2222	1.2815	.863
			7.0	2.0000	1.7854	.267
	LSD	4.0	1.0	-1.3333	1.9410	.495
			2.0	-1.1429	1.9936	.569
			3.0	-3.0000	2.0850	.156
			5.0	.8000	2.2065	.718
			6.0	-3.2222	2.0617	.124
			7.0	-1.0000	2.4075	.679
	LSD	5.0	1.0	-2.1333	1.2965	.105
			2.0	-1.9429	1.3740	.163
			3.0	-38000*	1.5035	.014
			4.0	-.8000	2.2065	.718

		6.0	-4.0222*	1.4710	.008
		7.0	-1.8000	1.9260	.354
LSD	6.0	1.0	1.8889	1.0308	.072
		2.0	2.0794	1.1268	.070
		3.0	.2222	1.2815	.863
		4.0	3.2222	2.0617	.124
		5.0	4.0222*	1.4710	.008
		7.0	2.2222	1.7582	.211
LSD	7.0	1.0	-.3333	1.6150	.837
		2.0	-.1429	1.6779	.932
		3.0	-2.0000	1.7854	.267
		4.0	1.0000	2.4075	.679
		5.0	1.8000	1.9260	.354
		6.0	2.2222	1.7582	.211

*. The Mean difference is significant at the .05 level.

position 5 ($p = .010$, $\alpha = 0.05$). Position 2 is significantly different to position 6 ($p = .032$, $\alpha = 0.05$). Position 3 is significantly different to position 4 ($p = .015$, $\alpha = 0.05$) and position 5 ($p = .011$, $\alpha = 0.05$). Position 4 is significantly different to position 6 ($p = .007$, $\alpha = 0.05$). And finally position 5 is significantly different to position 6 ($p = .004$, $\alpha = 0.05$). None of the positions were significantly different on the Bonferroni Post Hoc Test.

is significantly different to position 4 ($p = .015$, $\alpha = 0.05$) and position 5 ($p = .011$, $\alpha = 0.05$). Position 4 is significantly different to position 6 ($p = .007$, $\alpha = 0.05$). And finally position 5 is significantly different to position 6 ($p = .004$, $\alpha = 0.05$). None of the positions were significantly different on the Bonferroni Post Hoc Test.

4.5.5 Education

The Independent Samples t test indicated that there were no significant results across all three sub-scales. (See Table Twenty- One) This means that there are no differences across the Justice sub-scales that are due to the individuals education level.

4.5.6 Gender

The Independent Samples T-Test indicated that there were no significant differences in the scores across all three sub-scales due to gender. The T-Test results are summarized in Table Twenty-Two.

4.6 Scatterplots

The scatterplots generated from the various possible relationships due to race generally showed that none of the relationships were strong as they subjects did not

lie close to the best line of fit. However for the Black Race group it was seen that there was a strong negative relationship between an individual's EI score and their score on the Interpersonal Justice Sub-scale. Graphs One to Three.

From Graph Three it is seen that there is a single outlier that may be decreasing the strength of the relationship and that the rest of the observations fall very close to the line of best fit. From the correlations that were run on the individual racial groups it is seen that the Black group it was found that Interpersonal Justice was significantly correlated with EI ($p = -.66, \alpha = 0.05$).

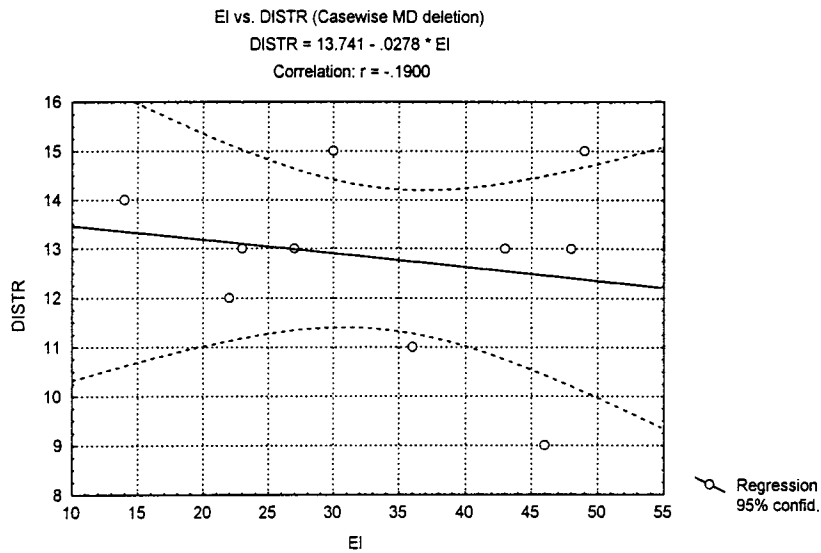
Table Twenty-Two - T-Test (Education)

		Levene's Test for Equality of Variances.				
		F	Sig.	t	df	Sig. (2 - tailed
Dist. Just.	Equal Variance Assumed	.011	.918	-1.111	65	.271
	Equal Variance Not Assumed			-1.110	64.371	.271
	Assumed					
Proc. Just.	Equal Variance Assumed	.046	.832	1.032	65	.306
	Equal Variance Not Assumed			1.031	64.020	.307
	Assumed					
Inter. Just.	Equal Variance Assumed	.037	.849	.194	65	.847
	Equal Variance Not Assumed			.194	64.858	.847
	Assumed					

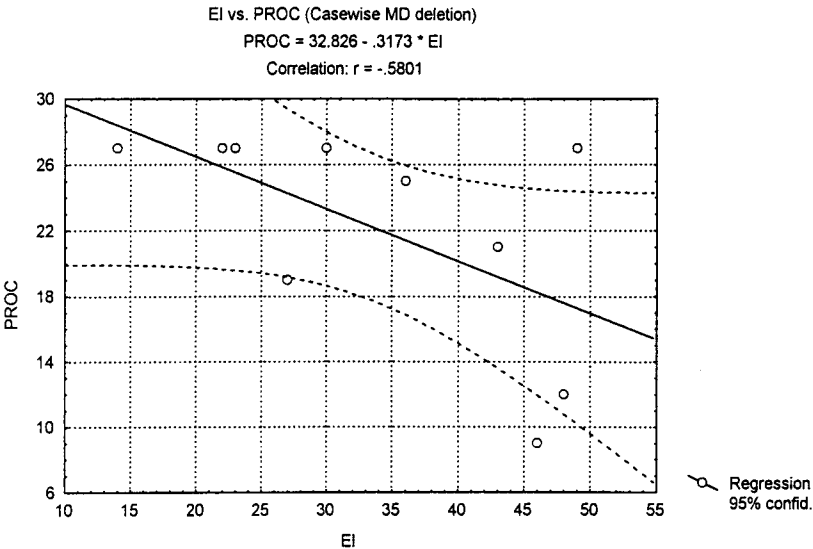
Table Twenty-Three - T-Test (Gender)

		Levene's Test for Equality of				
		Variances.				
		F	Sig.	t	df	Sig. (2 - tailed)
Dist. Just.	Equal Variance Assumed	.379	.540	-.652	66	.517
	Equal Variance Not			-.644	59.351	.522
	Assumed					
Proc. Just.	Equal Variance Assumed	.187	.667	-.180	66	.858
	Equal Variance Not			-.177	58.508	.860
	Assumed					
Inter. Just.	Equal Variance Assumed	.1738	.192	-.088	66	.930
	Equal Variance Not			-.087	58.013	.931
	Assumed					

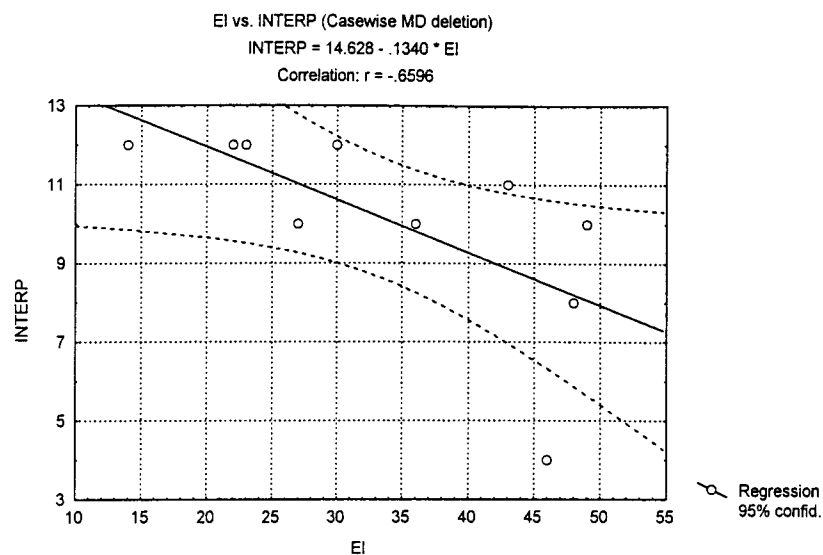
Graph One - EI vs. Distributive Justice



Graph Two - EI vs. Procedural Justice



Graph Three - EI vs. Interpersonal Justice



Chapter 5: Discussion

This chapter will discuss the current research as presented in the previous chapter, and will explain and relate these findings to the literature and past research as presented in Chapter 2.

5.1 Reliability of Distributive Justice Sub-Scale

From the initial reliability analysis of the two scales it was seen that the reliability of the Distributive Justice sub-scale was well below the accepted standard recommended by Nunnally, that alpha should be at least .7. On the item analysis it was shown that item one was a weak item and if it were deleted then the reliability of this sub-scale would increase to .59. However, this still does not bring the alpha to the acceptable standard. Item one states that "Past Discrimination in the workplace must be redressed". It is possible that this item may be eliciting either an emotional answer or a politically correct answer as this is a highly controversial topic in South African Society and is not limited to the workplace. It is interesting to note that the reliability for this sub-scale is very low for individuals who are Black. Once again item one is the weakest. Here it is possible that there was a language barrier, as even though the Justice Perceptions scale was available in Black languages none were requested. Therefore the term "redress" may not have been understood in its entirety.

5.2 The Relationship between Justice Perceptions and Personality

Type

The correlation that was run in order to answer the main question revealed that the only relationship between an individual's Personality Type and their Justice

Perceptions of the Equity Act existed between the Judging-Perceiving sub-scale and the Interpersonal Sub-scale. The relationship is a positive one which means that the higher the individuals score on JP the higher they score on Interpersonal Justice. A high score on JP indicates that the individual leans more to Perceiving and a low score indicates that an individual leans more towards Judging.

This positive relationship seems plausible if it is considered that Judging people seek closure and tend to make decisions quicker (Myers, 1998; Carland & Carland, 1990). They are rational in nature and feel that they know what others should be doing in almost every situation (Myers & Myers, 1995). Whereas Perceiving individuals are attuned to information gathering, are more adaptable and tolerant and seek to understand their surroundings (Carland & Carland, 1990; Myers & Myers, 1995).

Therefore a Judging person may seem less open to interpersonal communication and be less inclined to sit down and simply listen, which would influence their perception of whether or not the outcomes have been fairly communicated to them as at a later stage they may find a new outcome that they have not had explained to them. On the other hand a Perceiving individual would be the person who wants to sit down and discuss the outcomes and wants to try to understand how and why they occur as they do. They would therefore probably feel that the outcomes have been clearly and fairly communicated to them, which is the essence of Interpersonal Justice (Greenberg, 1990b).

The correlations also revealed that certain Justice Perception Items were correlated with the sub-scales of the JTI. Items 14 and 15 were positively correlated with

Sensing -Intuition. Items 14 states that the act "Considers all parties viewpoints" and item 15 states that the act "Values all parties as important to the workplace". These relationships indicate that the higher an individual scores on SN the higher they will score on these items. Individuals with high scores on SN lean towards Intuition. Intuition individuals focus on relationships and meanings (Carland & Carland, 1990). They like to take in information by looking at the big picture and focusing on relationships and connections between fact (Myers, 1998). They are also more oriented towards the possibilities rather than the present realities as the Sensing Individual does (Myers, 1998). Therefore a Intuition Individual may be more inclined to understand how the act seeks to include all the parties by seeing the future possibilities and how each party is included even if they do not feel that they are included in the exact same manner or at the same stage.

Item 18, which states that the act "Is a fair and just one", is positively related to the Judging-Perceiving sub-scale. This sub-scale looks at how the individual deals with the outer world (Myers, 1980,in Stone, 1998). Therefore an individual will scores higher on item 18 if they have a higher score on JP. A high score on JP indicates that an individual leans towards Perceiving. A perceiving individual is adaptable and tolerant (Myers & Myers, 1995), they may therefore be more open to viewing the act in terms of future possibilities and would be able to adapt to the changes in employment procedures more readily. A judging individual on the other hand likes life to be ordered and likes to live life according to customs (Myers & Myers, 1995), they will therefore not adapt as readily to the changes that the Act calls for.

From the above discussion it is clear that certain aspects of an individual's personality as set out by Jung do impact on an individual's justice perceptions of the Employment Equity Act. It is therefore important to take these into consideration when examining how an individual makes a justice perception choice.

This indication of a relationship between an individual characteristic and an individual's justice perceptions may help in answering the question of why individuals in the same situation from the same group may perceive the situation differently. It is clear from the literature review and from the current research that an individual's personality acts as a kind of filter on what information they pay attention to and how they make their decisions based on that information.

This research indicates a need to move away from traditional areas of research in the field of justice perceptions to the area of individual differences and their impact on an individual's justice perceptions.

5.3 Biographics and JTI

5.3.1 Age

In the analysis of the Jung Type indicator in terms of the biographical data to look for any differences across the scores it was found that there is a relationship between an individual's age and SN. This relationship is negative in nature, which means that older respondents scored lower on SN. A lower score on SN indicated that the individual leans toward Sensing. Sensing individuals tend to focus on the present, whereas Intuition individuals tend to focus on the future possibilities (Carland & Carland, 1990). It is therefore plausible that the older an individual becomes the more

likely they are to focus on the present as they have already set out career paths and plans and perhaps have settled into a pattern or environment. Younger individuals on the other hand may still be at the planning stage and would therefore be more interested on the future possibilities that may arise. For example an older individual, in their mid-30s to early 40s may focus on the effect that the Equity Act will have on them now, whereas an individual who is in their twenties may feel that at a later stage the Equity Act may benefit them or impact on them differently.

5.3.2 Education

Education has a significant relationship to the Thinking-Feeling sub-scale. When the mean ranks were examined it was seen that individuals with an education level of grade 10 to grade 12 scored higher on the TF sub-scale indicating that they lean more towards feeling. Individuals with a tertiary education, on the other hand scored lower on TF and therefore lean more toward Thinking. If one considers that Thinkers use cause and effect reasoning more, look at logical consequences and value logic (Carland & Carland, 1990; Myers & Myers, 1995) it seems plausible that with a tertiary education, which stresses independent thinking and critical analysis more than a high school education, an individual may start to be a thinker rather than a feeler.

The reliability analysis of the JTI across education groups also revealed that certain items were not understood or interpreted correctly. For example items 2 and 6, which are part of the SN sub-scale discuss issues that are not normally taught at high school level. Item 2 states that "I am interested in such philosophical issues such as free-will, the meaning of life, etc." and item 6 states that "I prefer to work on practical concrete problems, even if they leave little scope for imagination". The use of terms that the

individual is unfamiliar with or are used in a manner that is unfamiliar to them may effect the reliability of the item as it is no necessarily measuring what it is meant to be measuring. This problem is again illustrated by the weak items in the TF sub-scale for the group with grade 10 to grade 12. These items include statements such as " My feelings are influenced by more feeling and intuition than by argument and debate" and " I am hard-headed and logical in my attitudes". The language may be seen as too complex and may effect the results of the scale.

For the tertiary education group the items that are weak more because they ask questions that seem to be very general, such as " I often phone friends to chat" or "I am known as someone who s good at attending to detail". These statements may vary form situation to situation. There is an overlap between some of the weak items such as " I am hard-headed and logical in my attitudes", which may also indicate that the statements may vary from situation to situation.

5.4 Biographics and the Justice Perceptions Scale

From the various tests run on the Justice Perceptions scale to see if there were any differences caused by the biographical data, it was found that race, language and position effect an individuals score on the Justice Perceptions scale. Gender, age and education level had no effect on the individuals score.

5.4.1 Race

Overall it is seen from the anova that Black individuals scored higher on the Justice perceptions scale than Whites and Others, which include Indians and Coloureds. This indicates that Black respondents felt that the Equity act is more just than their White,

Coloured and Indian counterparts. This could simply be caused by the political and controversial nature of the act. The Equity Act is political in that it seeks to redress the problems that were created by the Apartheid Era and it is controversial in that to some individuals it is seen as reverse racism. The nature of the act could therefore be eliciting the individuals self-interest beliefs rather than their perception of how just the act is in itself. In a study by Katz (1999) differences in justice perceptions between racial groups were also reported. Katz (1999) states that these differences are inevitable as the Act itself legislates that employment practices can be done on racial grounds.

When the variance of the Justice Perceptions scale was examined for each racial group it was seen that for the White group it was normal, however for the Black group it indicated outliers. Procedural justice is skewed to the left and shows more variability, however on the Distributive Justice and Interpersonal Justice scales outliers are clearly shown. This means that the overall mean for that group is being dragged toward the outlier therefore making it lower than it would be if the outlier were removed. It could also indicate that the information was captured incorrectly.

When additional correlations were run on each racial group it was found that there is a significant negative relationship between the EI and Interpersonal Justice for the Black group. This indicates that the higher an individual score on EI the lower they scored on Interpersonal Justice. A high score on EI indicates that an individual leans toward Introversion. Therefore a low score on EI, which makes the individual more Extroverted would indicate a high score on Interpersonal Justice.

This relationship is plausible as an extrovert is more attuned to the external environment and has a preference for communicating by talking (Myers & Myers, 1995). They are considered understandable and accessible (Myers & Myers, 1995). An extrovert would be more likely than their introvert counterpart to sit down and discuss the outcomes and their implications, as well as asking questions about anything they don't understand. An introvert on the other hand is more reserved, private and contained (Myers, 1998), will be less likely to want to sit down and have an in-depth discussion about the outcomes. They would most likely prefer the explanation to be in writing which does away with the interactive component and makes it harder for any questions that they have to be answered.

However these results should be considered as exploratory as the sample size for the Black group was only 10, which is very small and makes the results difficult to generalize to other groups, samples or populations.

5.4.2 Language

The Black Language Group differed significantly from the other language groups of English and Afrikaans. Individuals who spoke a Black Language as their home language generally scored higher on all three of the Justice Perceptions sub-scales. This could be explained by the fact that your home language is generally determined by your race and as previously seen race effects how an individual decides on whether or not something is fair.

5.4.3 Position

An individual's position was related to their score on the Justice Perceptions scale. Similar results were reported by Katz (1999). She reported that there were significant differences between job levels on the procedural and distributive sub-scales (Katz, 1999). From the mean ranks it is seen that programmers, who are employed on a permanent basis, scored the highest, whereas consultants scored the lowest. At a distributive justice level these differences may stem from the fact that the consultants may be worried that the Act will not benefit them in anyway, whereas programmers may feel that affirmative action may be beneficial to them. The second highest scorers were the junior administration staff, who are lower level staff who may feel that affirmative action may benefit their moving up in position.

5.5 Limitations of the current research

It is obvious that there are limitations associated with the study. Firstly, the sample consisted of volunteers. Rosenthal and Rosnow (1975) noted that volunteers tended to be approval motivated, from a higher social class, more sociable and more educated than non-volunteers (Cited in Rosenthal and Rosnow, 1991). The implication of these characteristics is that it reduces the representativeness of the sample as a volunteer is different from a non-volunteer and therefore reduces the generalisability of the results obtained (Ibid.).

Secondly, social desirability is another possible limitation that may have been present in this study. Social desirability is the tendency to respond to an item in a sociably acceptable manner (Rust and Golombok, 1989). Ensuring confidentiality and using the random response technique can control for this (Rosenthal and Rosnow, 1991).

However, there is the possibility that the subjects will not believe that confidentiality is in fact guaranteed, and that this could lead them to answer in a way that would make them seem “normal” to the researcher.

This study was conducted using self-report questionnaires. For this type of research it is important that the questions in the scale measure the relevant characteristics, as the accuracy of the measurement is dependent on this relevance (Breakwell et al, 1995). These type of questionnaires are often criticised as they are open to response biases such as social desirability as well as response sets, which is when individuals systematically answer the items in order to present a specific image (Bailey, 1987).

Related to the above limitation is the language of the questionnaires. For this study although the Justice Perceptions scale was available in certain Black Languages none were requested. This may have lead to an ethical limitation as the questionnaire may discriminate against a specific group, as it does not cater for their home language. This is a common problem in South Africa.

The question of experimenter effects also needs to be examined. Experimenter effect occurs when the subjects respond to cues given by the experimenter or when the experimenter investigates the data in a manner which will confirm his preconceived ideas of what the results should be (Rosenthal and Rosnow, 1991). This was controlled for in the same manner as social desirability. The second part of the experimenter effect was controlled for as the data obtained from the questionnaires was numerical in nature, which was inputted into a computer and at the end of this

stage the computer gave a certain result. This meant that the experimenter was unable to manipulate the results.

The chosen methodological design had both positive and negative implications for the present research. One of the advantages of using a cross-sectional design for this study is that it kept the time of measurement constant (Breakwell, et al, 1995).

Normally this is a disadvantage, however as South Africa is undergoing rapid changes both socially and legally constancy of time becomes important in order to evaluate the individuals justice perceptions of the EEA.

The final limitation, which is perhaps the most important is the demographic breakdown of the sample was in no way representative of the broader South African Population. This will severely decrease the generalisability of the findings of the current research to other samples.

5.6. Directions for future research

From this study it has been shown that there is a relationship between aspects of an individual's personality and their justice perceptions of the EEA. The limitations of the present research indicate future directions for research. Firstly, studies with larger, more representative samples are warranted. These studies would help to increase the generalisability of the results, as well as examine the strengths of existing relationship better.

Further studies that examine the interaction between an individual's personality and their justice perceptions need to be conducted in order for the possibility that the

relationship is due to the specific act to be eliminated. Therefore further acts and policies should be examined. It is also possible that if a less contentious act was chosen than the possibility of social desirability and trying to be politically correct may be reduced.

Finally, it is important to bear in mind that the current research was exploratory in nature, and was therefore sought to examine the possibility of a relationship between the two variables and whether the are was worthy of research. The findings that certain aspects of an individual's personality and their justice perceptions of the EEA should therefore be investigated in more detail.

Chapter 6: Conclusion

Social scientists have long recognized the importance of the ideals of justice as a basic requirement for the effective functioning of organisations and the personal satisfaction of the individuals they employ (Greenberg, 1990a). In South Africa there has been a recent influx of labour legislation that seeks to address disadvantages within the South African workplace that have been created by the Apartheid Era. These new acts have brought about significant changes in the South African workplace and in order to maintain a successful organisation the impact of these legislative acts need to be examined. It is therefore important to understand how and why an individual decides on whether or not an outcome is just or unjust, as research within the area of justice perceptions has continuously indicated that these perceptions influence our behavior.

The current study attempted to examine the relationship between an individual's personality type and their Justice Perceptions of the Employment Equity Act. The area of individual differences is an area that has been relatively under explored in Justice research, with past research generally focussing on the outcomes, procedures and context when attempting to explain justice perceptions. By focusing on a more recent legislative act the study also sought to add to our understanding of it.

The results of the study indicate that there was a significant relationship between an individual's score of the Judging - Perceiving sub-scale and their score on the Interpersonal Justice sub-scale. The study also indicated that a further relationship existed for the black subjects between their score of the Extroversion- Introvert sub-scale and their score on the Interpersonal sub-scale. There is now a need for further

research on a bigger sample to confirm the current results and perhaps explain these relationships further.

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research on a bigger sample to confirm the current results and perhaps explain these relationships further.

References

Adams, J.S. (1963). Toward an understanding of inequity. Journal of Abnormal and Social Psychology, 67(5), 422-436.

Alexander, S. & Ruderman, M. (1987). The role of procedural justice and distributive justice in organisational behaviour. Social Justice Research, 1, 177-198.

Bailey, K.D. (1987). Methods of Social Research. The Free Press: New York.

Ball, G.A., Trevino, L.K. & Sims, H.P. (1994). Just and Unjust Punishment: Influence on Subordinate Performance and Citizenship. Academy Of Management Journal, 37, no. 32, 299-322.

Barbuto, J.E. (1997). A Critique of the Myers-Briggs Type Indicator and its operationalization of Carl Jung's psychological types. Psychological Reports, 80, 611-625.

Breakwell, G.M., Hammond, S. & Fifer-Schaw, C. (1995) Research methods in Psychology. Sage Publications: London.

Brockner, J. & Wiesenfeld, B.M. (1996). An Integrative Framework for explaining Reactions to Decisions: Interactive Effects of Outcomes and Procedures. Psychological Bulletin, 120, no.2, 189-208.

Carland, J.C. & Carland, J.W. (1990). Cognitive styles and the education of computer information systems students. Journal of Research on Computing in Education, 23(1), 114-127.

• Charlton, G. D. & Van Niekerk, N. (1994). Affirming Action- Beyond 1994. Juta & Co, Ltd.: Cape Town. ✓

Cropanzano, R. & Greenberg, J. (1997). Progress in Organizational Justice: Tunnelling through the maze. International Review of Industrial and Organizational Psychology, 12, 317-372.

De Beer, J. (1997). South African Myers-Briggs Type Distribution: A Comparative Study. Unpublished Thesis: Rand Afrikaans University.

Employment Equity Act, No. 19370, 1998

England, L.J. (1993). A reassessment of interactionism and a contextual- behavioural reinterpretation of Kiesler's interpersonal theory of personality. Unpublished Thesis: University of the Witwatersrand.

Frazer, M. (1994). A South African Validation of the Myers-Briggs Type Indicator. Unpublished Thesis: Rand Afrikaans University.

Goodman, P.S. (1974). An examination of the referents used in the evaluation of pay.

Organizational Behavior and Human Performance, 12, 170-195.

Greenberg, J. (1987). A taxonomy of organizational justice theories. Academy of

Management Review, 12, 9-22.

Greenberg, J. (1990a). Organizational justice: Yesterday, today and tomorrow. Journal of

Management, 16 (2), 399-432.

Greenberg, J. (1990b). Looking fair vs. being fair: Managing impressions of

organizational justice. Research in Organizational Behavior, 12, 111-157.

Greenberg, J. (1996). The quest for justice on the job: Essays and Experiments. Thousand

Oaks, California: Sage Publications Inc..

Hergenhahn, B.R. (1994). An Introduction to theories of Personality (4th Edition).

Prentice Hall : Engelwood Cliffs, New Jersey.

Hogan, R., Hogan, J. & Roberts, B.W. (1996). Personality Measurement and

Employment Decisions. American Psychologist, 51, no.5, 469-477.

• IDASA. (1995). Making Affirmative Action Work. A South African Guide. Creda Press: ✓
Cape Town.

Innes, D. (1993) Affirmative Action: Issues and strategies. In D. Innes, M.Kentridge & ✓
H. Perold (Eds) Reversing Discrimination: Affirmative Action in the Workplace. (pp.4-
10). Cape Town: Oxford University Press.

• Jeffery, A.J. (1996). Business and Affirmative Action. Johannesburg: South African ✓
Institute of Race Relations.

Katz, L. (1999). The Relationship between Demographic Variables and Justice
Perceptions of the Equity Act. Unpublished Thesis: University of the Witwatersrand.

Kuanyshbek, M. (2000). Behavioral and Personality Correlates of Revenge. Social
Justice and Social Exclusion VIII Conference September 18-21, 2000.

Kulik, C.T. & Ambrose, M.L. (1992). Personal and Situational determinants of Referent
Choice. Academy of Management Review, 17, 212-237.

Landy, F.J.; Barnes, J.L. & Murphy, K.R. (1978). Correlates of perceived fairness and
accuracy of performance evaluation. Journal of Applied Psychology, 63, 751-754. .

Landy, F.J., Barnes-Farrell, J. & Cleveland, J.N. (1980). Perceived fairness and accuracy of performance evaluation: a follow-up. Journal of Applied Psychology, 65, 355-356.

Myers, I.B. & Myers, P.B. (1995). Gifts Differing : Understanding Personality Type. Palo Alto, California : Davies-Black Publishing.

Myers, I.B. (1998). Introduction to Type (6th edition). Consulting Psychologists Press, Inc.: Palo Alto, California.

Noeveli, L. , Kirkman, B.L. & Shapiro, D.L. (1995). Effective Implementation of Organizational Change: An Organizational Justice Perspective. Cited in Cooper, C.L. and Rosseau, D.M. (ed.). (1995). Trends in Organizational Behavior. John Wiley and Sons Ltd:

Nunns, C.G. (1994). Perceptions of Procedural and Interactional Justice in the workplace for black South African, blue collar workers. Unpublished Thesis: University of the Witwatersrand.

Pearce, J.L.; Bigley, G.A. & Branyiczki, I. (1998). Procedural Justice as Modernism: Placing industrial/organisational psychology in context. Applied Psychology: An International Review, 47(3)3, 371-396.

Psytech, (2000a). Tests – Jung Type Indicator. www.psytech.co.uk/tests. Downloaded on the 7 June 2000.

Psytech, (2000b). The Jung Type Indicator – The technical manual. www.psytech.co.uk . Downloaded on the 7 June 2000.

Rosenthal, R. & Rosnow, R.L. (1991) Essentials of Behavioral Research: Methods and Data Analysis (2nd edition). McGraw-Hill, Inc.: New York.

Rust J. & Golombok S. (1989). Modern Psychometrics. London: Routledge.

Stone, C. (1998). The Impact of Personality Type on Work-group Behaviour. Unpublished Thesis: University of the Witwatersrand.

Thibaut, J. & Walker, L. (1975). Procedural Justice: A psychological analysis. Hillsdale, NJ: Lawrence Erlbaum.

Tredoux, N. (2000). Personal correspondence.

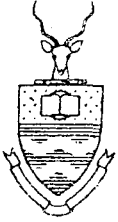
Tyler, T.R. (1989). The Psychology of procedural justice: A test of the group value model. Journal of Personality and Social Psychology, 57, 830-838.

Tyler, T.R. (1994). Psychological Models of the Justice Motive: Antecedents of Distributive and Procedural Justice. Journal of Personality and Social Research, 67, no. 5, 850-863.

Tyler, T.R., Degoe, P. & Smith, H. (1996). Understanding why the Justice of Group Procedures Matters: A test of the Psychological Dynamics of the Group-Value Model. . Journal of Personality and Social Research, 70, no.5, 913-930.

Van den Bos, K., Vermunt, R. & Wilke, H.A.M. (1997) Procedural and Distributive Justice: What is Fair depends more on what comes first than what comes next. Journal of Personality and Social Psychology, 71, no. 1, 95-104.

Appendix One - Communication with the Employees



UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Private Bag 3, Wits 2050, South Africa • Telegrams 'Uniwits' • Fax: (011) 71-74559 • Telephone: (011) 71-74500

Dear Staff Member

My name is Leanne Falconer and I am currently completing my masters in Industrial Psychology at the University of the Witwatersrand. Conducting research and writing a dissertation is a fundamental part of this course and will count 50% of my year mark. My research will be placed in the University Libraries and will be used to increase the pool of knowledge in the Industrial Psychology area.

I would like to conduct this research within your company. I have managed to obtain permission to come in and do this, however it is to be done on a completely voluntary basis. My research will be looking to see if there is a relationship between an individual's personality and whether they perceive something as being fair or not. It would require participants to complete a short personality questionnaire, and a justice perception questionnaire. None of the questionnaires that are being used require you to reflect anything about the company itself. Rather you will need to reflect on yourself and the Employment Equity Act, as an act rather than as a policy at the company. Participants are not required to place their names on any documentation and the management at _____ will not have access to this raw data. Rather, once I have completed my statistical analysis on this data, the company could obtain information about trends in the company and at the beginning of next year a complete copy of my dissertation will be given to the company.

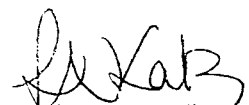
Once again, I feel that it is important to stress that in no way will the company be able to trace any information to any specific individual.

When you have completed the questionnaire package, place the questionnaires in the sealable envelope provided and drop it into the box mark Wits Research, which will be available, at your departmental secretary's office. An additional box will be placed in _____ office. The boxes will be collected on the 1st of November, so please ensure that you have completed the questionnaires by that date.

If you have any questions or queries with regard to any aspect of my research or would simply like to know more, please feel free to contact me on (011) 616-6685, or, 082 429-0469, or you could e-mail me at lfalcon@arts.pg.wits.ac.za, and I will get back to you as soon as possible.

Thanking you in anticipation,


Leanne Falconer
Wits University
Masters student


Lesley-Anne Katz
Wits University
(Supervisor)

Instructions

For this study there are three questionnaires that need to be completed. Firstly there is a biographical questionnaire, then a Justice Perceptions Scale and finally the Jung Type Indicator. Each questionnaire has instruction on them on how they should be completed. However, there are some general instructions that can be applied to all the questionnaires. They are:

- 1) Read through the questions carefully and only mark the answer that you feel is the most accurate.
- 2) Please mark the answer you think of first.
- 3) Only use neutral if all the other options are completely inaccurate (in other words it should be your final option).
- 4) Please answer all questions. Do not leave any blank as this invalidates the entire questionnaire.
- 5) Be as truthful as possible. (Remember that confidentiality is ensured).
- 6) Only fill in the first biographical questionnaire; leave out the biographical questions on the Jung Type Indicator.

You need not fill in your name at any stage, unless you would like feedback and then confidentiality is still guaranteed.

Appendix Two - Biographical Questionnaire

Biographical Questionnaire

1. Age _____
2. Gender (for statistical purposes) _____
3. Race (for statistical purposes) . _____
4. Position _____
5. Highest Level of Education _____
6. Home Language _____

Appendix Three - Justice perceptions of the EEA Scale

Please read the following information before answering the questions.

The Employment Equity Act was passed in 1998. This act calls for particular employers, such as yours, to implement affirmative action in you company. This means that previously disadvantaged people (blacks, coloureds, Indians, people with a disability, and women) should be employed where ever possible, in order to be more representative of the population. In order to do this, employers have to:

- Consult with employees, in order to
- Conduct an analysis of the company, one aim of which is to identify particular jobs where the population is not represented.
- Prepare and Employment Equity plan, part of which outlines how they will be implementing affirmative action
- Report their Employment Equity plan in a public report
- Designate one manager to oversee, monitor, and enforce the Employment Equity plan
- Implement the Employment Equity plan.

The company's Employment Equity plan will also be monitored by the state.

The purpose of the Employment Equity Act is to achieve workplace equity by promoting equal opportunity and fair treatment in the workplace.

Please answer the following questions about the Employment Equity Act. Please note that these questions concern your overall impressions of the Act, and not any one aspect in particular.

Please indicate whether you agree, disagree, or neither agree nor disagree with the following statements. It is important that you give your own opinion, and not what you think the answer should be. Please indicate your answer by marking the appropriate box.

In the interest of fairness:

	Agree	Neither Agree nor Disagree	Disagree
1. Past discrimination in the workplace must be redressed.			
2. Equality in the workplace must be promoted through this Act.			
3. It is important to achieve a workforce representative of our population.			

Continued on next page...

The procedures outlined in this Act:

	Agree	Neither Agree nor Disagree	Disagree
4. Are free from all forms of unfair discrimination.			
5. Take into account all parties interests.			
6. Allow for decisions to be based on accurate information.			
7. Are designed to favor certain groups.			
8. Allow for incorrect decisions to be changed.			
9. Apply equally to everyone.			
10. Are fair and just.			
11. Allow for all parties concerns to be heard.			
12. Allow for all parties to have a say in how decisions are made.			

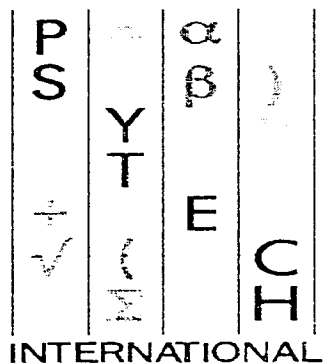
This Act:

	Agree	Neither Agree nor Disagree	Disagree
13. Reflects respect for all parties.			
14. Considers all parties' viewpoints.			
15. Values all parties as important to the workplace.			
16. Allows for all parties to be part of the Employment Equity process.			
17. Promotes reverse racism.			
18. Is a fair and just one.			

Appendix Four - Jung Type Indicator

Jung Type Indicator Questionnaire

Special edition for research use only



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Instructions

This is a questionnaire concerning your interests, preferences and attitudes about a range of things. There is no time limit, however most people take about 10 minutes to complete the questionnaire.

You should have a question booklet, and answer sheet, a pencil and an eraser.

Carefully read all the instructions before beginning. Answer each question by filling in the box that best describes you on the answer sheet.

When answering the questions, please remember the following:

1. Do not spend too much time pondering over the answer to each question. The information given in a question may not be as full as you might wish, but please answer the questions as best as you can.
2. Please try to avoid the middle (in between) answer wherever possible.
3. Try to be as truthful as you can. Don't give an answer just because it seems to be the right thing to say.
4. Make sure you answer every question, even those which do not seem to apply directly to you.
5. If you want to change an answer, erase it and insert your new answer.

Jung Type Indicator Questionnaire
Research Use Only

1	I often phone friends just for a chat.
2	I am interested in such philosophical issues as the nature of free-will, the meaning of life, etc.
3	My decisions are influenced more by feeling and intuition than by argument and debate.
4	I like everything to be in its proper place.
5	Some people might describe me as a little quiet or reserved.
6	I prefer to work on practical concrete problems, even if they leave little scope for imagination.
7	On occasion people have accused me of being somewhat cold and calculating.
8	Sometimes I wish I were a little more organized.
9	In meetings and discussions I prefer to take a back seat and let others do the talking.
10	I like to keep up with what is happening in the arts.
11	I have little time for other people's problems.
12	Planning ahead takes the fun out of most things.
13	I find it easy to make new friends.
14	I am bored by abstract theoretical debates.
15	When I am upset I like friends to show sympathy and concern.
16	I dislike work that involves rigidly following set procedures and systems.
17	I am considered to be a very outgoing and sociable person.
18	I am known as a very realistic, 'down to earth' person.
19	I never 'let my heart rule my head'.
20	I often leave things to the last minute.
21	I enjoy telling jokes and amusing stories.
22	I would enjoy the life of an artist or playwright.
23	I am moved by the plight of the homeless and needy.
24	Most people are not sufficiently organized and systematic in their work.
25	Most people would describe me as a talkative, lively person.
26	I have a very vivid imagination.

Jung Type Indicator Questionnaire
Research Use Only

27	I rarely let my actions be swayed by emotion or sentiment.
28	I am known as someone who is good at attending to detail.
29	I dislike being the centre of attention.
30	I often find myself absorbed in thought.
31	People describe me as someone who is very sensitive and considerate.
32	People place too much importance on punctuality.
33	I prefer to work on my own, away from the distraction of other people.
34	The study of ideas has little appeal for me.
35	I find it easy to relate to other people's feelings.
36	I am always careful to double-check my work.
37	People describe me as the 'life and soul of the party'.
38	I am better at understanding facts than understanding theories.
39	I am hard-headed and logical in my attitudes.
40	I dislike working in messy, untidy surroundings.
41	I usually take the initiative when getting to know someone new.
42	Most people spend too much time thinking about things and too little time getting things done.
43	Some people might describe me as a little sentimental.
44	I am a very methodical and organized person.
45	I sometimes feel a little uncomfortable in social settings.
46	I enjoy daydreaming.
47	I never allow my feelings to cloud my judgement.
48	I like to have a routine to follow.
49	I would prefer to live in a lively city than a remote cottage in the country.
50	I am known as a very creative, imaginative person.
51	When someone is upset or tearful I am usually one of the first to offer support and comfort.
52	I can never find things when I want to.

Jung Type Indicator Questionnaire
Research Use Only

-
- 53 At times I find it hard to be sociable.
-
- 54 I appreciate what is best in art, music and literature.
-
- 55 I often worry about people who are suffering hardship.
-
- 56 I have been accused of being disorganized at times.
-
- 57 Some people might consider me to be a 'bit of a loner'.
-
- 58 I am always coming up with new ideas, even if some are a little impractical.
-
- 59 People waste too much time discussing personal problems.
-
- 60 I am very systematic and orderly in my work.
-

This is the end of the questionnaire.
Thank you for your co-operation.

Appendix Five – Reliability Analyses

Justice Perceptions of the Employment Equity Act Scale

Entire Sample

Distributive Justice – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 1	8.4154	5.0591	.1613	.5897
Question 2	8.6615	4.0399	.4344	.4395
Question 3	8.7231	4.2659	.3362	.4995
Question 16	8.7692	4.0553	.3520	.4902
Question 17	9.4923	4.5976	.3415	.4997

Reliability Coefficients

N of cases = 65

N of Items = 5

Alpha = .5630

Interpersonal Justice – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 13	5.6764	4.1012	.7047	.6842
Question 14	5.7941	4.1341	.6758	.6995
Question 15	5.4559	4.6892	.4865	.7975
Question 18	5.8382	4.9297	.5497	.7644

Reliability Coefficients

N of cases = 68

N of Items = 4

Alpha = .7911

Procedural Justice- Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 4	14.9546	29.2555	.7273	.9069
Question 5	14.9546	28.3161	.7852	.9028
Question 6	14.5909	29.6963	.6276	.9137
Question 7	15.3030	30.7870	.6423	.9125
Question 8	14.5000	30.4621	.6179	.9139
Question 9	14.9242	28.6155	.7248	.9071
Question 10	14.9091	28.3554	.7952	.9021
Question 11	14.7121	28.5080	.7422	.9058
Question 12	14.7272	28.7741	.7200	.9074

Reliability Coefficients

N of cases = 66

N of Items = 9

Alpha = .9175

By Racial Groups

Distributive Justice – Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 1	8.109091	4.715372	.198926	.554683
Question 2	8.418181	3.988760	.386700	.446433
Question 3	8.527273	4.176529	.299528	.501504
Question 16	8.472727	3.849256	.370614	.455056
Question 17	9.236363	4.616859	.310981	.497398

Reliability Coefficients

N of cases = 55

N of Items = 5

Alpha = .5493

Interpersonal Justice – Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 13	5.321429	3.53941	.619438	.628919
Question 14	5.410714	3.492028	.637864	.617478
Question 15	5.071429	4.030612	.382742	.771598
Question 18	5.410714	4.206314	.521921	.690926

Reliability Coefficients

N of cases = 56 N of Items = 4

Alpha = .7401

Procedural Justice- Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 4	13.98182	22.99967	.633758	.877832
Question 5	13.96364	21.67141	.758768	.867202
Question 6	13.50909	22.54082	.587667	.882024
Question 7	14.32727	25.09289	.528981	.886570
Question 8	13.41818	23.26149	.565216	.883121
Question 9	13.89091	22.06083	.647502	.876829
Question 10	13.89091	21.87901	.739887	.868920
Question 11	13.69091	21.81355	.667228	.874194
Question 12	13.69091	21.81355	.677228	.874194

Reliability Coefficients

N of cases = 55 N of Items = 9

Alpha = .8891

Distributive Justice – Non-Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 1	10.10000	3.090000	-.239879	.517799
Question 2	10.00000	1.800000	.496904	0.000000
Question 3	9.80000	2.960000	0.000000	.297297
Question 16	10.40000	1.640000	.204479	.146342
Question 17	10.90000	1.690000	.268553	.063113

Reliability Coefficients

N of cases = 10 N of Items = 5

Alpha = .2787

Interpersonal Justice – Non-Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 13	7.333333	3.388889	.895278	.657787
Question 14	7.583333	3.243056	.594979	.783726
Question 15	7.250000	3.854167	.695431	.745946
Question 18	7.833333	3.472222	.465055	.858000

Reliability Coefficients

N of cases = 12 N of Items = 4

Alpha = .8095

Procedural Justice- Non-Whites

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Question 4	19.81818	32.14876	.854834	.939552
Question 5	19.90909	32.08265	.688466	.946199
Question 6	20.00000	30.36363	.777923	.941908
Question 7	20.18182	30.96422	.672914	.948996
Question 8	19.90909	31.35537	.779445	.941637
Question 9	20.09091	29.35537	.906840	.934363
Question 10	20.00000	29.63637	.862402	.936977
Question 11	19.81818	30.69422	.877948	.936687
Question 12	19.90909	31.35537	.779445	.941637

Reliability Coefficients

N of cases = 11

N of Items = 9

Alpha = .9472

Jung Type Indicator

Entire Sample

JTI – EI sub-scale – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 1	31.10294	85.53352	.084444	.844266
Item 5	31.14706	76.182426	.538845	.814617
Item 9	31.72059	78.46605	.404751	.823714
Item 13	31.72059	76.43663	.617049	.810775
Item 17	31.38235	72.20675	.771889	.799006
Item 21	31.54412	79.83630	.376632	.825142
Item 25	31.29412	74.64878	.659832	.807062
Item 29	30.79412	78.72231	.451791	.820423
Item 33	30.80882	78.09580	.464030	.819626
Item 37	30.54412	77.15982	.552376	.814356
Item 41	31.52941	78.24913	.480468	.818669
Item 45	30.98529	80.51448	.373897	.825065
Item 49	31.05882	82.0242	.212932	.837345
Item 53	30.92647	80.65636	.384260	.824399
Item 57	31.20588	78.19290	.498090	.817685

Reliability Coefficients

N of cases = 68

N of Items = 15

Alpha = .8305

JTI – SN sub-scale – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 2	27.05882	66.02595	.370546	.782302
Item 6	27.60294	67.79823	.288727	.788571
Item 10	28.22059	63.70134	.544510	.768622
Item 14	27.70588	31.79585	.530021	.768165
Item 18	28.41176	70.24221	.210212	.792666
Item 22	28.44118	65.45242	.426474	.777799
Item 26	27.08824	63.25692	.581600	.765886
Item 30	26.64706	68.11073	.330732	.784919
Item 34	26.95588	64.98335	.456400	.115450
Item 38	27.83824	66.31207	.387304	.780873
Item 42	28.45588	69.57159	.232060	.791690
Item 46	27.44118	64.71713	.361704	.784189
Item 50	27.48529	63.63214	.519894	.770132
Item 54	27.25000	66.68750	.307556	.787959
Item 58	27.22059	66.20133	.422619	.778351

Reliability Coefficients

N of cases = 68

N of Items = 15

Alpha = .7917

JTI – TF sub-scale – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 3	32.02941	45.76384	.059437	.699584
Item 7	31.86765	45.79131	.059521	.699296
Item 11	31.08824	42.05104	.401250	.653950
Item 15	31.82353	43.32180	.236557	.670550
Item 19	31.77941	41.23075	.445484	.647630
Item 23	31.39706	42.38646	.353003	.659379
Item 27	32.01471	42.22038	.351328	.659326
Item 31	31.35294	41.58131	.444663	.648791
Item 35	31.29412	42.32526	.343262	.660366
Item 39	32.39412	47.35467	-.013667	.702601
Item 43	31.58824	41.94810	.397521	.654044
Item 47	31.92647	41.30342	.346110	.659257
Item 51	31.55882	41.54066	.428884	.650054
Item 55	31.41176	41.65398	.435428	.649806
Item 59	32.16177	43.69442	.185003	.682709

Reliability Coefficients

N of cases = 68

N of Items = 15

Alpha = .6824

JTI – JP sub-scale – Entire Sample

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 4	22.75000	68.42278	.564691	.797950
Item 8	21.48529	64.74979	.631828	.790613
Item 12	22.42647	71.97990	.331902	.812228
Item 16	21.41176	71.00692	.328702	.813130
Item 20	21.69118	67.68404	.469299	.803246
Item 24	22.45588	75.39511	.130639	.824070
Item 28	22.52941	69.57267	.503441	.801935
Item 32	22.30882	76.15462	.070197	.829160
Item 36	22.39706	72.18058	.311739	.813532
Item 40	22.51471	68.13213	.413162	.807862
Item 44	22.19118	64.62522	.714181	.785881
Item 48	21.94118	68.34947	.460659	.803883
Item 52	22.14706	68.21366	.454941	.804309
Item 56	21.92647	65.53871	.582667	.794429
Item 60	22.52941	69.54326	.515261	.801363

Reliability Coefficients

N of cases = 68

N of Items = 15

Alpha = .8167

By Home Language

JTI – EI sub-scale – English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 1	30.71053	83.20568	.143025	.846039
Item 5	30.84211	72.71191	.579860	.820688
Item 9	31.34211	76.27769	.396550	.833595
Item 13	31.39474	74.76524	.639340	.818897
Item 17	30.86842	70.11427	.834951	.805185
Item 21	31.13158	77.95637	.405099	.831946
Item 25	30.92105	74.54639	.629115	.819100
Item 29	30.28947	75.31094	.519216	.825045
Item 33	30.13158	75.69321	.502205	.826120
Item 37	30.13158	76.00900	.525625	.824924
Item 41	31.13158	78.85112	.404485	.831851
Item 45	30.52632	79.67036	.329806	.836065
Item 49	30.50000	80.51316	.205887	.846395
Item 53	30.39474	80.13365	.360532	.834061
Item 57	30.57895	75.13851	.543800	.823603

Reliability Coefficients

N of cases = 38

N of Items = 15

Alpha = .8382

JTI – SN sub-scale – English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 2	26.50000	80.67105	.509909	.829004
Item 6	27.00000	82.68422	.380019	.837268
Item 10	27.73684	80.14127	.563856	.825904
Item 14	27.18421	75.20290	.702199	.815579
Item 18	27.94737	88.47092	.211037	.843940
Item 22	27.81579	82.78185	.436982	.833344
Item 26	26.60526	78.87049	.666331	.820918
Item 30	26.10526	85.77839	.335500	.838505
Item 34	26.47368	79.88088	.514314	.828671
Item 38	27.36842	83.81163	.378186	.836716
Item 42	27.68421	86.47922	.264426	.842611
Item 46	26.94737	80.20776	.466595	.831951
Item 50	27.07895	78.17798	.642154	.820831
Item 54	26.76316	83.28601	.394109	.835892
Item 58	26.78947	81.85042	.494494	.830089

Reliability Coefficients

N of cases = 38 N of Items = 15

Alpha = .8411

JTI – TF sub-scale – English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 3	31.76316	41.23338	.281646	.689769
Item 7	31.89474	43.67313	.109589	.713771
Item 11	30.94737	41.89196	.375406	.679317
Item 15	31.81579	42.99238	.215270	.696658
Item 19	31.65789	41.43559	.375904	.678339
Item 23	31.42105	40.45430	.371727	.677501
Item 27	32.00000	41.36842	.336384	.682289
Item 31	31.50000	40.93421	.417394	.673603
Item 35	31.07895	41.44114	.418638	.674865
Item 39	32.23684	45.54917	.026719	.717872
Item 43	31.39474	42.08103	.330525	.683531
Item 47	31.76316	40.12812	.391094	.674868
Item 51	31.47368	41.77562	.330656	.683208
Item 55	31.44737	40.93144	.415093	.673794
Item 59	32.13158	41.21953	.298238	.687251

Reliability Coefficients

N of cases = 38 N of Items = 15

Alpha = .7008

JTI – JP sub-scale – English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 4	22.60526	80.87050	.656909	.843504
Item 8	21.36842	78.44321	.608808	.843820
Item 12	22.21053	84.69253	.354351	.857076
Item 16	21.44737	83.66827	.337776	.859118
Item 20	21.57895	81.77007	.400718	.856113
Item 24	22.05263	85.04986	.356385	.856772
Item 28	22.28947	77.52146	.693972	.839346
Item 32	22.23684	88.86495	.169447	.864133
Item 36	22.18421	84.41344	.380551	.855739
Item 40	22.55263	83.51039	.350362	.858313
Item 44	22.00000	74.52631	.815041	.831649
Item 48	21.84211	77.60664	.652335	.841308
Item 52	22.05263	83.99722	.390364	.855362
Item 56	21.81579	77.25553	.659940	.840768
Item 60	22.23684	79.39127	.619030	.843739

Reliability Coefficients

N of cases = 38

N of Items = 15

Alpha = .8588

JTI – EI sub-scale – Non- English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 1	31.60000	88.04000	.025336	.846958
Item 5	31.53333	80.31556	.492771	.812385
Item 9	32.20000	80.82666	.413351	.817019
Item 13	32.13334	78.24889	.597042	.805949
Item 17	32.03333	74.09889	.709873	.796247
Item 21	32.06667	81.72889	.340519	.821996
Item 25	31.76667	74.37890	.696644	.797239
Item 29	31.43333	82.31222	.370389	.819544
Item 33	31.66667	79.82222	.473586	.813209
Item 37	31.06667	78.12889	.581157	.806574
Item 41	32.03333	77.03222	.561275	.806935
Item 45	31.56667	80.97889	.424490	.816311
Item 49	31.76667	83.44556	.232746	.830209
Item 53	31.60000	80.50666	.421408	.816521
Item 57	32.00000	80.93334	.481396	.813281

Reliability Coefficients

N of cases = 30 N of Items = 15

Alpha = .8254

JTI – SN sub-scale – Non-English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 2	27.76667	46.57889	.147418	.683234
Item 6	28.36667	47.89889	.108825	.684490
Item 10	28.83333	42.20555	.511654	.635522
Item 14	28.36667	44.03222	.258105	.669595
Item 18	29.00000	46.53334	.205690	.673874
Item 22	29.23333	42.37889	.448233	.642071
Item 26	27.70000	42.81000	.446221	.643431
Item 30	27.33333	44.88889	.332419	.659109
Item 34	27.56667	45.44556	.317388	.661409
Item 38	28.43333	43.51222	.403276	.649437
Item 42	29.43333	46.44556	.268381	.667161
Item 46	28.06667	44.39556	.505928	.679478
Item 50	28.00000	44.73333	.300831	.662471
Item 54	27.86667	44.98222	.192724	.680193
Item 58	27.76667	45.84555	.275092	.665974

Reliability Coefficients

N of cases = 30 N of Items = 15

Alpha = .6795

JTI – TF sub-scale – Non-English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 3	32.36666	51.29889	-.175195	.716565
Item 7	31.83333	48.47223	-.003483	.693378
Item 11	31.26667	42.19555	.438302	.634141
Item 15	31.83333	43.73889	.321396	.650230
Item 19	31.93333	40.92889	.528085	.321023
Item 23	31.36667	44.83222	.339080	.650173
Item 27	32.03333	43.29889	.370525	.643904
Item 31	31.16667	42.33889	.529442	.627077
Item 35	31.56667	43.31222	.302284	.652768
Item 39	32.36666	49.63222	-.064500	.695785
Item 43	31.83333	41.67222	.490635	.627346
Item 47	32.13334	42.71555	.307463	.65293
Item 51	31.66667	41.22223	.547807	.620552
Item 55	31.36667	42.56556	.469235	.632509
Item 59	32.20000	46.82667	.066199	.689176

Reliability Coefficients

N of cases = 30 N of Items = 15

Alpha = .6712

JTI – JP sub-scale – Non-English

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 4	22.93333	52.59555	.464333	.720057
Item 8	31.63333	47.36555	.687021	.691036
Item 12	22.70000	55.74334	.302955	.735637
Item 16	21.36667	54.96554	.332421	.732984
Item 20	31.83333	49.80556	.593244	.704751
Item 24	22.96667	62.69889	-.171833	.772429
Item 28	22.83333	59.33889	.106470	.748815
Item 32	22.40000	60.04000	-.032865	.772915
Item 36	22.66667	56.55556	.217857	.743352
Item 40	22.46667	48.64889	.541962	.707733
Item 44	22.43333	51.97889	.542030	.713406
Item 48	22.06667	56.59555	.175749	.748916
Item 52	22.26667	48.19555	.576214	.703367
Item 56	22.06667	50.66222	.482244	.716169
Item 60	22.90000	56.82334	.335639	.734542

Reliability Coefficients

N of cases = 30

N of Items = 15

Alpha = .7450

By Education Level

JTI – EI sub-scale – Std 8 - 10

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 1	29.63158	88.44322	.125681	.840697
Item 5	29.78947	78.00832	.591607	.807721
Item 9	30.26316	81.56232	.450627	.817805
Item 13	30.26316	80.19390	.656719	.806316
Item 17	30.05263	76.94460	.729500	.799386
Item 21	30.15789	84.44875	.349361	.824154
Item 25	.29.94737	79.83932	.601164	.808327
Item 29	29.55263	83.14196	.427419	.819221
Item 33	29.36842	84.28531	.375897	.822354
Item 37	29.26316	80.66759	.551409	.811418
Item 41	29.89474	79.67313	.640429	.806382
Item 45	29.47368	86.14404	.293440	.827120
Item 49	29.57895	85.50694	.237552	.833527
Item 53	29.44737	83.98408	.413521	.820065
Item 57	29.84211	83.39613	.407650	.820463

Reliability Coefficients

N of cases = 38

N of Items = 15

Alpha = .8281

JTI – SN sub-scale – Std 8-10

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 2	26.57895	62.50693	.184871	.774654
Item 6	27.42105	63.08588	.163442	.775679
Item 10	27.73684	57.35180	.470639	.750450
Item 14	27.55263	55.82618	.515236	.745495
Item 18	27.94737	59.99723	.324418	.763452
Item 22	27.92105	57.33587	.501213	.748187
Item 26	26.65789	56.59349	.530332	.745192
Item 30	26.26316	60.24654	.334014	.762521
Item 34	26.55263	59.45776	.388276	.758112
Item 38	27.57895	60.24377	.344769	.761418
Item 42	28.15789	63.34349	.186066	.772712
Item 46	27.07895	56.65166	.393560	.758171
Item 50	27.23684	56.07549	.540332	.743777
Item 54	26.63158	59.23269	.309854	.765702
Item 58	26.89474	58.67313	.400187	.756887

Reliability Coefficients

N of cases = 38 N of Items = 15

Alpha = .7716

JTI – TF sub-scale – Matric

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 3	33.63158	36.12742	.083589	.616370
Item 7	33.44737	39.24723	-.129435	.653683
Item 11	32.65789	33.01454	.473518	.553269
Item 15	33.47368	34.24931	.235290	.588153
Item 19	33.28947	31.78462	.557032	.536667
Item 23	32.97368	34.65720	.301474	.578778
Item 27	33.81579	32.67659	.322534	.573131
Item 31	32.97368	32.18352	.509872	.544011
Item 35	32.76316	37.75969	-.003013	.684922
Item 39	33.84211	37.55402	.012931	.622664
Item 43	33.26316	34.19391	.295699	.578201
Item 47	33.60526	32.13366	.322861	.570478
Item 51	32.97368	32.86773	.443072	.555105
Item 55	32.92105	35.70429	.246559	.587872
Item 59	33.94737	35.36565	.116560	.312438

Reliability Coefficients

N of cases = 38 N of Items = 15

Alpha = .6049

JTI – JP sub-scale – Std 8 - 10

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 4	23.28947	79.94252	.536292	.828219
Item 8	21.97368	73.13088	.772441	.811376
Item 12	22.86842	85.06163	.303649	.840766
Item 16	22.02632	84.02561	.343614	.838884
Item 20	22.18421	77.46607	.578916	.825005
Item 24	23.26316	88.87811	.137444	.847106
Item 28	23.15789	81.02771	.540755	.828595
Item 32	22.81579	86.93976	.168007	.849093
Item 36	23.02632	85.34142	.303977	.840562
Item 40	23.00000	79.36842	.426700	.835732
Item 44	22.81579	74.78186	.797719	.812053
Item 48	22.63158	82.44321	.352209	.839408
Item 52	22.52632	79.03879	.517350	.829064
Item 56	22.42105	74.77009	.659915	.819023
Item 60	23.15789	81.02771	.524333	.829295

Reliability Coefficients

N of cases = 38 N of Items = 15

Alpha = .8416

JTI – EI sub-scale – Tertiary

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 1	32.96667	75.63223	-.002248	.842344
Item 5	32.86666	68.58223	.420001	.816399
Item 9	33.56667	68.44556	.334085	.823168
Item 13	33.56667	65.57890	.568532	.806602
Item 17	33.06667	61.12889	.817650	.788392
Item 21	33.30000	68.47666	.383564	.818880
Item 25	33.00000	62.86666	.722515	.795682
Item 29	32.36666	68.69888	.435332	.815535
Item 33	32.63334	64.29889	.580083	.805092
Item 37	32.16667	68.00555	.511432	.811392
Item 41	33.60000	68.77333	.360630	.820463
Item 45	32.90000	66.82333	.511539	.810562
Item 49	32.93333	71.72888	.169300	.834700
Item 53	32.80000	70.16000	.338097	.821234
Item 57	32.93333	66.26223	.618416	.804966

Reliability Coefficients

N of cases = 30

N of Items = 15

Alpha = .8252

JTI – SN sub-scale – Tertiary

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 2	27.66667	69.82223	.567964	.798986
Item 6	27.83333	73.67221	.414231	.810669
Item 10	28.83333	71.07222	.660476	.794867
Item 14	27.90000	69.29000	.560446	.799425
Item 18	29.00000	82.60000	.060518	.826626
Item 22	29.10000	74.95667	.375928	.813124
Item 26	27.63333	71.16557	.654797	.795237
Item 30	27.13333	77.64890	.331066	.815290
Item 34	27.46667	71.51556	.525355	.802556
Item 38	28.16667	73.80555	.424416	.809853
Item 42	28.83333	77.20555	.268800	.820064
Item 46	27.90000	74.55667	.326081	.818064
Item 50	27.80000	73.02666	.502040	.804628
Item 54	28.03333	75.03222	.360030	.814346
Item 58	27.63333	75.43221	.457157	.808315

Reliability Coefficients

N of cases = 30

N of Items = 15

Alpha = .8196

JTI – TF sub-scale – Tertiary

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 3	30.00000	50.60000	-.019173	.740982
Item 7	29.86667	46.91555	.213117	.712355
Item 11	29.10000	46.42333	.287789	.702638
Item 15	29.73333	46.9956	.290261	.702281
Item 19	29.86667	46.64889	.274378	.704144
Item 23	29.40000	45.04000	.352820	.695048
Item 27	29.73333	43.72889	.491190	.679220
Item 31	29.30000	45.94333	.359547	.694977
Item 35	29.43333	41.91222	.644578	.661211
Item 39	30.33333	52.88889	-.146452	.745113
Item 43	29.46667	43.71555	.525235	.676471
Item 47	29.80000	44.82667	.406866	.689066
Item 51	29.76667	46.77889	.314767	.699856
Item 55	29.50000	42.65000	.530785	.672891
Item 59	29.90000	45.09000	.339672	.696666

Reliability Coefficients

N of cases = 30 N of Items = 15

Alpha = .7138

JTI – JP sub-scale – Tertiary

Reliability Analysis – Scale (Alpha)

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Item 4	22.06667	52.99556	.619692	.746729
Item 8	20.86667	53.44889	.385685	.761350
Item 12	21.86667	54.84889	.369408	.762860
Item 16	20.63333	53.43222	.328103	.767634
Item 20	21.06667	54.59556	.286919	.770871
Item 24	21.43333	56.44556	.197313	.770840
Item 28	21.73333	53.92889	.455264	.756438
Item 32	21.66667	61.75556	-.111876	.799845
Item 36	21.60000	54.37333	.341372	.765219
Item 40	21.90000	53.22334	.377761	.762194
Item 44	21.40000	50.64000	.595896	.742239
Item 48	21.06667	49.12889	.696478	.732432
Item 52	21.66667	54.08889	.349839	.764553
Item 56	21.30000	53.14333	.430623	.757397
Item 60	21.73333	53.86222	.511423	.753375

Reliability Coefficients

N of cases = 30 N of Items = 15

Alpha = .7744