

**PERSONALITY TYPES AS PREDICTOR OF TEAM  
ROLES**

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**PERSONALITY TYPES AS PREDICTOR OF TEAM ROLES**

by

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## **SUMMARY**

### **PERSONALITY TYPES AS PREDICTOR OF TEAM ROLES**

The aim of this study was to determine whether personality types are predictors of team roles in order to make recommendations for the use of personality types, in conjunction with team roles, in selection and teambuilding. The study was conducted among 50 professionals and managers in Western Cape organisations. The data was collected by means of the Myers-Briggs Personality Type Indicator (MBTI) and the TeamBuilder Model of Team Roles.

Supporting evidence, although not sufficient, indicates that the Extraversion (E) personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Introversion (I) personality type is not a predictor of any team role. The Sensing (S) personality type is a negative predictor of the Driving Onward team role and a positive predictor of the Delivering Plans team role. The Intuition (N) personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Thinking (T) personality type is a positive predictor of the Controlling Quality team role. The Feeling (F) personality type is not a predictor of any team role. The Judging (J) personality type is a positive predictor of the Planning Ahead team role, and the Perceiving (P) personality type is a negative predictor of the Planning Ahead team role.

It can be assumed that the full range of personality types will be a predictor of the full range of team roles, should a larger sample size and geographical sample group be included in the study.

### **KEY TERMS**

Personality, personality type theory, personality types, analytical psychology, Myers-Briggs Type Indicator, personality type development, teams, team roles, TeamBuilder model of team roles, team role preference.

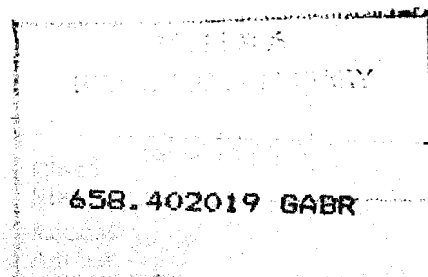
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## **CHAPTER 1: BACKGROUND AND OVERVIEW OF THE RESEARCH**

This research focuses on personality types as predictor of team roles. In this chapter, the background of the research will be outlined and will flow into the formulation of the problem statement and the research question. Thereafter, the aims of the research will be stated and the paradigm perspectives within the research will be discussed. The research design and research method will then be formulated, and finally, the manner in which the chapters will be presented is introduced.

### **1.1. BACKGROUND TO THE RESEARCH**

Personality and teams are important components in the study of human and organisational behaviour. The study of personality has long been central to the research of individual behaviour (Hjelle, 1987) through quantitative (Cattell, et. al., 1974) and qualitative methodologies (Bellak, 1975 & Golden-Biddle, 1997). Previous correlative studies between personality and other variables have contributed to the understanding of the effects of personality types on career choices (Hanson, 1980), teaching styles (Cunningham, 1962), and management styles (Hartston, 1975). Other studies include the effects of personality types on role foci of leaders (Church, 1982), management level and job foci (Church & Allie, 1986), specialities of medical students twelve years later (Myers, 1976), student survival in law school (Miller, 1967), the area of art study of senior art students (Stephens, 1973), job satisfaction (Williams, 1975), career patterns (Coetzee, 1996), and career success in the accounting profession (Jacoby, 1981). The study of personality types in the context of team roles can therefore contribute to the general understanding of human behaviour within teams.

Teams of various kinds have existed for hundreds of years and are the subject of countless books and research studies. Though many people in organisations have had first-hand experience of teams themselves, some of which were rewarding and others not, it is becoming increasingly clear that the potential impact of teams on the performance of large organisations is woefully under-explored, despite the rapidly growing recognition of the need for what teams have to offer (Fisher, 1993). Teams, and the study of teams have gained prominence in the evolution of the adaptive process-centred organisation (Hammer, 1997), through team-

learning concepts (Senge, 1990), team-building programs (Murphy, 1988), experimentation with Bion's Tavistok model working with the psycho-dynamics of group work (Banet & Hayden, 1977; Shaffer & Galinsky, 1974), and community-building workshops (Peck, 1987).

The current emphasis on team building may be regarded as part of a natural evolution in management and organisational theory (Libowitz & Meuse, 1982), and is considered a viable intervention strategy for improving an organisation's ability to cope and adapt to continuous change. Libowitz and Meuse (1982) further argue that management approaches increasingly stress the inter-relationships and interdependencies among organisational members, and individuals alone can no longer deal with many of the technological problems faced by organisations. Individual participation in teams is therefore becoming a critical part of improving organisational effectiveness.

Stott and Walker (1995) explains that common wisdom dictated that if the best people are put together, it would inevitably result in a high performance team. Traditionally, therefore, the most skilled people, or those of sufficient seniority, would be selected for the team, and in some cases, people assume team membership by virtue of their position. This approach is prevalent in most organisations, and it has been found that such an approach does not guarantee success. Furthermore, an ideal team requires a balance of team roles and that certain roles would be accentuated at certain stages of the team's development, depending on the situation. A new emphasis should therefore be placed on predicting an applicant's fit and contribution within a team, as well as maintain a balance of team roles within a team.

Research into the relationships between personality types and team roles can therefore expand our understanding of human behaviour in teams by focusing specifically on personality types as predictors of team roles. The outcome of this study can therefore advance the selection processes for the appointment of members to a team, as well as adding interpretative value to personality types, thereby contributing to the effectiveness of team functioning in an organisation.

## 1.2. PROBLEM STATEMENT

Traditional approaches to selection and assessment in organisations have focused predominantly on individual characteristics such as personality type, to obtain the best match between the individual and the job. It therefore does not make provision for assessing whether job applicants are an appropriate fit within a team. As a result, candidates are assessed and selected based on their fit within the job, rather than a fit within an existing team or department. It is uncertain if personality types act as predictors of team roles.

For this study the following research questions are formulated:

- 1.2.1. What is personality type as a concept and what constructs are involved?
- 1.2.2. What is a team role as a concept, and what constructs are involved?
- 1.2.3. Is there a theoretical relationship between personality types and team roles?
- 1.2.4. Can personality types act as predictors of team roles?
- 1.2.5. What conclusions and recommendations can be made with regard to the use of personality types to predict team roles for selection and teambuilding?

## 1.3. AIMS OF THE RESEARCH

### 1.3.1. General Aim

The general aim of this study is to determine whether personality types are predictors of team roles.

### 1.3.2. Specific Aims of the literature review

The following outlines the specific aims of the research:

- 1.3.2.1. to define and determine the nature of personality types
- 1.3.2.2. to define and determine the nature of team roles
- 1.3.2.3. to determine the theoretical relationship between personality types and team roles

### 1.3.3. Specific Aims of the empirical investigation

The following outlines the specific aims of the research:

- 1.3.3.1. to determine whether personality types predict team roles
- 1.3.3.2. to formulate recommendations for the use of personality types in future selection and teambuilding

## 1.4. **PARADIGM PERSPECTIVE**

This section will outline the relevant paradigms, meta-theoretical statements, and theoretical models used in this research.

### 1.4.1. Relevant paradigms

The literature review will first discuss personality types, and then team roles. The literature review on personality types will be presented from the psychodynamic paradigm, and more specifically from the neo-psychoanalytical paradigm (Jung, 1954; 1959; 1969; 1971). The psychodynamic paradigm reflects a deterministic view of human nature and emphasises unconscious forces as shapers of behaviour (Schultz, 1990). The literature review on team roles will be presented from the behaviouristic paradigm. The behaviouristic paradigm is based on the assumption that behaviour is an accumulation of learned responses to stimuli and refers to what can be objectively observed and manipulated (Schultz, 1990). The empirical study will be presented from the functionalistic paradigm. Morgan (1980) explains that the functionalistic paradigm is based upon the assumption that society has a concrete, real existence, with a systemic character oriented to produce an ordered and regulated state of affairs. It encourages an approach to social theory that focuses upon understanding the role of individuals in society where behaviour is seen as being contextually bound in a real world of concrete and tangible social relationships.

#### 1.4.2. Meta-theoretical statements

In disciplinary context this research focuses on industrial psychology.

##### 1.4.2.1. Industrial psychology

Industrial psychology is a branch of applied psychology and is generally described as the scientific study and research of the psychological conditions of work in order to advance the understanding of attitudes and work behaviour to create better and more effective organisations (McCormick & Ilgen, 1985; Raubenheimer, 1964; University of Waikato, 1998). The term industrial psychology also covers organisational, military, economic and personal psychology, which includes areas such as psychological testing and measurement, personnel practices, the study of organisations, market research, consumer surveys, human factors, and the effects of work (Reber, 1988).

##### 1.4.2.2. Organisational psychology

Organisational psychology is a sub-field within industrial psychology and refers to the application of psychological approaches to the study of human behaviour in order to enhance human effectiveness in organisations (McCormick & Ilgen, 1985).

##### 1.4.3. Theoretical models

For the purposes of this study, personality will be viewed within the psycho-dynamic perspective, extracted from the psychoanalytical approach (Jung, 1954), and will be categorised according to Jung's four scales of eight personality types (Bayne, 1995; Meyers & McCaulley, 1985).

Teams, for the purposes of this study, are extracted from the TeamBuilder model developed by Peter Milburn (Murphy, 1998). Although the TeamBuilder model is primarily a 5-stage, 15-step sequential team management process for getting things done in a team, it is an invaluable model and tool for understanding team roles and assessing individual preferences for certain

team roles (Murphy, 1998). The model is based on the assumption that an individual develops a primary preference for a certain team role identified within the model. Consequently, an individual's effective and sustainable contribution to a team is primarily determined by their preference for a particular team role. Furthermore, the sustainable effectiveness of an individual's contribution to a team is, in turn, influenced by the satisfactory fulfilment of their preferred role (Murphy, 1998).

#### 1.4. 4. Conceptual descriptions

There are several conceptual descriptions that are of relevance to this study.

##### 1.4.4.1. Personality

There is no consensus among psychologists about the nature of personality. Hence, there are many different approaches to understanding and studying the topic. There are at least eight approaches to the study of personality; these include: psycho-dynamic, trait, life span, humanistic, cognitive, behavioural, social learning, and limited domain (Mischel, 1993; Schultz, 1990). For the purposes of this study, personality is contextualized within the psycho-dynamic approach. The psycho-dynamic approach is the work of Sigmund Freud (Schultz, 1990), and was the first approach used to study personality. It reflects a deterministic and pessimistic image of human nature, and emphasises unconscious forces, biologically based urges of sexuality and aggression, and conflicts in early childhood as rulers and shapers of personality (Freud, 1933).

There are three definitions of personality within the psycho-dynamic approach, which includes Freud's (1933) psychoanalysis, Jung's (1960; 1969) analytical psychology and Adler's (1932) individual psychology (DiCaprio, 1983; Moller, 1995; Pervin, 1989). Schultz (1990) provides a summary of the neopsychoanalytical theorists such as Carl Jung, Alfred Adler, Karen Horney, Erich Fromm, and Henry Murray, who represent neo-Freudian approaches rather than a unique point of view. They have been grouped in a single section because of their opposition to Freud's emphasis on instincts as primary motivators and his deterministic view of



personality. These theorists stress social influences more than Freud did, which is why (with the exception of Jung) they have been called the social-psychological theorists (Schultz, 1990).

The psycho-dynamic approach represents a hopeful and optimistic image of human nature, in which personality is more a product of environment than of inherited, physiological forces. Jung (1960) referred to the total personality as the psyche, a complex network of systems interacting with each other, and believed that psychic energy flowed continually from one system to another, constantly striving for harmony. For the purposes of this study, personality will be defined as the unique and relatively enduring internal aspects of an individual's character that influence behaviour in different situations (Jung, 1960; 1969).

#### 1.4.4.2. Teams

Teams have increasingly become significant resources in organisations, and the record of team performance in organisations speaks for itself. Teams invariably contribute to significant achievements in business, charity, schools, government, communities, and the military (Chance, 1989; George, 1977; Greco, 1988; Margerison & McCann, 1989; Senge, 1990; Stott & Walker, 1995; Timmons, 1979; Tjosvold, 1991; and Woodcock, 1979).

The concepts of teams and groups are often discussed synonymously, and therefore require distinction. Robbins (1993) defines a group as two or more individuals who have come together to achieve particular objectives. Other literature describes teams as a group of people working together to accomplish a task (Hirsh, 1993), emphasising the importance of relationships in teams (Johnson, 1991), and is consistent with Dyer's (1985) definition that teams are "collections of people who must rely on group collaboration if each member is to experience the optimum of success and goal achievement".

These definitions of teams vaguely differentiate themselves from Robbins (1993) definition of groups, and although difficult to clearly differentiate in any detail sense between "groups" and "teams" (Dunphy, 1989; Mullins, 1985; Schermerhorn, et.al, 1991; Stott & Walker, 1995), it is worth arriving at a distinction for the purposes of the confusing nature of the literature.

Kezsbom (1990) provides a distinguishing definition of teams, defining them as special designations awarded to people who not only share a common goal, but also are aware of the very nature of their interdependent roles, and how their respective talents complement their efforts to assure project success. It is this conscious awareness of individual interdependence and roles that distinguishes teams and groups. Thus, for the purposes of this study, teams will be defined as people who are aware of the nature and synergistic integration of their interdependent roles in the accomplishment of a shared goal.

#### 1.4.5. Methodological assumptions

The central hypothesis is formulated as follows: Personality types are predictors of team roles.

### 1.5. RESEARCH DESIGN

A research design incorporates a literature review and an empirical investigation to determine the predictive value of personality types for team roles. For this study, personality types will be the independent variable, and team roles will be the dependent variable. The study will also be confined to the individual level of analysis.

The internal validity in this study can be ensured through:

- the selection of models and theories in a representative manner, and presented in standardised manner
- the selection of measuring instruments in a responsible way and presented in a standardised manner

The external validity can be ensured by the random selection of the sample to be representative of the total corporate population.

### 1.6. RESEARCH METHODOLOGY

This research will be presented in two phases, namely a literature review and an empirical investigation.

### 1.6.1. Phase One: Literature Review

*The literature review will consist of three steps:*

- Step 1:** Personality types will be defined and determined
- Step 2:** Team roles will be defined and determined
- Step 3:** The theoretical relationship between personality types and team roles will be determined

### 1.6.2. Phase Two: Empirical Investigation

This empirical investigation will consist of eight steps, namely:

- Step 1:** A random sample of 80 participants comprising corporate managers and professionals in commercial and government sectors will be selected to participate in the research project.
- Step 2:** The Myers Briggs Personality Type Indicator Questionnaire and the TeamBuilder Questionnaire will be discussed and motivated as a test battery to assess personality types and team roles, respectively.
- Step 3:** The Myers Briggs Personality Type Indicator Questionnaire and the Team Builder Questionnaire will be administered to the sample of 80 participants
- Step 4:** Formulation of the research hypothesis.
- Step 5:** The psychometric data will be analysed using a correlation and regression analysis, and the results will then be reported and interpreted
- Step 6:** Integration of research findings.
- Step 7:** Limitations and conclusions of the research.
- Step 8:** Recommendations for future selection and teambuilding.

## 1.7. CHAPTER DIVISION

*The remaining chapters of this dissertation are:*

- Chapter 2: Personality Types
- Chapter 3: Team Roles

## Theoretical Relationship between Personality Types and Team Roles

Chapter 4: Empirical Investigation

Chapter 5: Results

Chapter 6: Limitations, Conclusions, and Recommendations

### 1.8. CHAPTER SUMMARY

In this chapter, the background to the research was discussed. The problem, aims of the research, its paradigm perspective, research design and research methods were also presented.

Chapter two presents and discusses personality types.

## **CHAPTER 2: PERSONALITY TYPES**

This chapter will focus on defining personality types and a theoretical background to Jung's personality type theory. Thereafter, the focus is on personality types, as well as extensions of Jung's personality type theory and personality type development. The relevance of personality types to organisations will be explained. A critical evaluation of Jung's theory on personality types will also be presented, as well as previous correlative research findings on personality types.

### **2.1. DEFINITION OF PERSONALITY TYPES**

In Chapter 1, personality was contextualized within a psycho-dynamic approach, and more specifically within Jung's (1960, 1969) analytical psychology. Though Jung did not deny the uniqueness and complexity of each individual, he nevertheless argued that people could be categorised into definable types (DiCaprio, 1983). Jung (1959, 1960, 1969, 1971) defined personality types as patterns in the way people prefer to perceive and make judgements. Individuals choose either perception or judgement as a dominant mode to guide their lives and the other mode as an auxiliary or helping process. By combining an individual's dominant attitude and function, his basic personality type may be determined. The various personality type differ in their interests, values, and needs. Individuals with different personality types learn in different ways, cherish different ambitions and respond to different rewards. For this study therefore, personality type is defined as the combination of Jung's (1960, 1969) attitudes and functions, and can be structured into eight types concerning the use of perception and judgement.

There are many similarities and differences between Jung (1960) and Freud's (1933) definitions of personality (Moller, 1995). The period of intensive contact between Freud and Jung both clarified the similarities and highlighted their differences, resulting in Jung's development of personality type theory. The following section provides a theoretical background to Jung's personality type theory that distinguishes it from Freud's original work on personality.

## 2.2. THEORETICAL BACKGROUND TO JUNG'S PERSONALITY TYPE THEORY

Jung's theory of personality stems from analytical psychology. In his attempt to understand the psychological functioning of individuals, he drew on information from a broad spectrum of disciplines such as psychology, psychiatry, theology, philosophy, biology, physics, chemistry, archaeology, literature, history, anthropology and mythology (Moller, 1995; DiCaprio, 1983; Pervin, 1989). Jung's image of human nature differs from Freud's in that Jung did not hold a deterministic view of human nature, and postulates that the drive towards self-actualisation is innate and can either be facilitated or thwarted by experience and learning (Schultz, 1990). Two important components of Jung's personality type theory are psychic energy and the dynamics of personality.

### 2.2.1. Psychic energy

Jung (1969) referred to the total personality as the psyche, consisting of a complex network of systems interacting with each other. He believed that psychic energy flowed continually from one system to another, in constant striving for harmony. Thus, like Freud, Jung viewed personality as an energy system. By contrast to Freud, however, who described the unconscious as the centre of suppressed contents, Jung viewed the unconscious as the source of the conscious and of new life opportunities, rendering his approach more optimistic and positive than that of Freud (DiCaprio, 1983; Moller, 1995; Pervin, 1989).

According to Freud, personality is motivated by the Libido, and although Jung did not reject the instinctive basis of personality, he criticised Freud's emphasis on sexual energy as the primary driving force of the personality (Jung, 1960). Hence, Jung used the term Libido to refer to a diffuse general life energy, and to a more limited psychic energy by means of which the psyche is motivated (DiCaprio, 1983; Jung, 1960; Moller, 1995; Pervin, 1989; Schultz, 1990). It is through the psychic energy that psychological activity such as perception, thinking, feeling, and wishing are performed. When a great deal of psychic energy is invested in a particular idea or feeling, that idea is capable of strongly influencing a person. For example, if people are highly motivated to obtain power, then most of their psychic energy will be devoted

to seeking power (Schultz, 1990), although this can also be expressed in sexuality, hunger, desire or a decision of the will (Engler, 1979).

Jung (1969) drew heavily from physics to explain the functioning of the psyche, and described a reciprocal relationship between psychic and physiological energy. The energy of the body can be transformed into the energy of the psyche, and the energy of the psyche can be transformed into the energy of the body. The following outlines the functioning of psychic energy in Jung's principles of opposites, equivalence, and entropy (DiCaprio, 1983; Jung, 1969; Moller, 1995; Pervin, 1989; Schultz, 1990)

#### 2.2.1.1. The principle of opposites

The principle of opposites is a major tenet of personality theory and refers to the idea that conflict between opposing processes or tendencies is necessary to generate psychic energy (Jung, 1969; Moller, 1995; Schultz, 1990). Opposing forces within personality create a conflict that generates energy. This, in turn, is expressed in behaviour. The same happens with the presence of opposing values. Every desire, thought or feeling has its opposite. The structural systems of the psyche are also in constant opposition to each other, for example the conscious and the unconscious. Without polarities or extremes there would be no process or tendency toward equalisation. The process of equalisation is energy and the sharper the conflict between polarities, the greater the energy produced (Jung, 1969; Moller, 1995; Schultz, 1990).

#### 2.2.1.2. The principle of equivalence

The principle of equivalence refers to the continuing redistribution of energy within personality. Jung (1969) stated that energy expended in bringing about some condition will not be lost to the personality, but will rather be shifted to another part of the personality. If one's psychic value in a particular area weakens or disappears altogether, that energy is transferred elsewhere in the psyche. For example, if one loses interest in a person or a hobby, the psychic energy formally invested in that area is shifted to a new area or to several areas. Also the

psychic energy in use for the conscious activities while awake is shifted to dreaming when sleeping (Moller, 1995; Schultz, 1990).

The word equivalence means that the new area to which energy has shifted must be of an equally strong psychic value – that is, equally desirable or compelling. Should this not be the case, then the excess energy will flow into the unconscious. In whatever direction and manner energy flows, the principle of equivalence means that there is a continuing redistribution of energy within the personality (Moller, 1995; Schultz, 1990).

#### 2.2.1.3. The principle of entropy

The principle of entropy refers to the equalisation of energy differences. For example, if a hot object and a cold object are placed in direct contact with each other, heat will flow from the hotter to the colder object until they are in equilibrium at the same temperature. It is, in effect, an exchange of energy resulting in a kind of homeostatic balance between the objects (Moller, 1995; Schultz, 1990). Jung (1960; 1969) adopted the same principle with psychic energy and there is always a tendency toward a balance or equilibrium in personality (Moller, 1995; Schultz, 1990).

#### 2.2.2. The dynamics of personality

According to Jung (1960, 1969), the total personality or psyche is composed of a variety of separate structures or systems that, although quite different from one another, are nevertheless capable of influencing one another. The following outlines the ego, the personal unconscious, and the collective unconscious as the major systems of personality.

##### 2.2.2.1. The ego

Jung (1960; 1969) stated that the ego is the conscious mind - that part of the psyche concerned with perceiving, thinking, feeling and remembering, and it is responsible for carrying out the normal activities of waking life. Jung (1960; 1969) further defined it as a



complex set of representations that constitute the centre of consciousness, and is also responsible for the feeling of continuity and individuality - ego identity.

Much of our conscious perception of and reaction to the world around us is determined by the attitudes of Extraversion and Introversion, and are the best-known parts of Jung's (1960, 1969) system. Extraversion refers to an attitude of the psyche characterised by an orientation toward the external world and toward other people, whereas Introversion refers to an attitude of the psyche characterised by an orientation toward an individual's own thoughts and feelings. Jung (1960, 1969) believed that the libido could be channelled externally, toward the outside world, or internally toward the self. Everyone has the capability for either Extraversion or Introversion, but one becomes dominant. Once either has become the dominant one, the person's behaviour and consciousness are largely ruled by it (Schultz, 1990).

#### 2.2.2.2. The personal unconscious

The personal unconscious refers to the reservoir of material that was once conscious but has been forgotten or suppressed because it was either trivial or distressing (Schultz, 1990). Jung (1960, 1969) compared the conscious aspect of the psyche to an island, which protrudes above the water, and the unconscious aspect of the psyche he compared with the greater mass of land lying below the water, forming the actual centre of personality (Moller, 1995).

All experiences are stored in a sort of filing cabinet of our personal unconscious, and as an individual files more and more experiences in the personal unconscious, he or she begins to categorise or group them into clusters that Jung (1960; 1969) called complexes. A complex is a pattern of emotions, memories, perceptions, and wishes in the personal unconscious organised around a common theme. Once a complex is formed, it is no longer under conscious control but can intrude upon and interfere with the consciousness, and the person with the complex is not aware of its guiding influence (Jung, 1969; Schultz, 1990). Complexes therefore not only make up the structural components of the personal unconscious, but they also play a very important role in motivating behaviour. The person with a power complex will be preoccupied with obtaining power and identify with influential people (Jung, 1969; Moller, 1995).

### 2.2.2.3. The collective unconscious

The collective unconscious is the deepest level of the psyche, containing the inherited, accumulated experience of the human and pre-human species, also called the transpersonal unconscious. Jung (1960) believed that, just as individuals' accumulate and file their past experiences, so does humankind collectively, as a species, and described the collective unconscious as the psychological residue of human evolutionary development. Humankind accumulates experiences of the human and pre-human species and passes this wealth of experience onto each new generation. Whatever experiences are universal – that is, are repeated, relatively unchanged, by each generation, become a part of each individual's personality. Indeed, the primitive past of human beings becomes the primary base of a person's psyche, directing and influencing current behaviour. To Jung (1969), the collective unconscious was the "all-controlling deposit of ancestral experiences" which in Jung's view is a definite linking of a person's present personality with the past – with his or her own childhood and with the history of the entire species (Schultz, 1990).

### 2.2.2.4. Archetypes

Jung (1969) described these ancestral links and universal forms of thought influencing human behaviour as archetypes. Not all archetypes have developed to the same extent, and some exercise a greater influence on the functioning of personality. Jung (1969) further described a variety of such archetypes, the most important of which are the persona, animus and anima, shadow and self. The following outlines these archetypes.

#### (a) *The persona*

The persona archetype refers to the public facade or role an individual presents to others, and the way an individual understands these roles (Jung, 1969; Schultz, 1990). This is the mask the individual wears in order to function effectively in relation to others and in order to comply with society's demands. Someone who does not develop a persona will be perceived as tactless and asocial. On the other hand, an individual may become so bound to a persona that

he starts believing that his persona reflects his true self, and that other aspects of his personality are moved to the background and remain undeveloped (Jung, 1969; Moller, 1995).

(b) *The animus and anima*

The anima (feminine aspects) and animus (masculine aspects) collectively refer to Jung's recognition that humans are essentially bisexual animals (Jung, 1969; Moller, 1995; Schultz, 1990). On the biological level, each sex secretes the hormones of the opposite sex as well as those of its own. On the psychological level, each sex manifests characteristics, temperaments, and attitudes of the other sex by virtue of centuries of living together. These characteristics of the opposite sex aid in the adjustment and survival of humanity by enabling a person to understand the other sex. The archetypes predispose one to like certain characteristics of the opposite sex and guide one's behaviour with reference to the opposite sex (Jung, 1969; Schultz, 1990).

Jung (1969) further argues that the masculine archetype is characterised by qualities such as reason, logic and social insensitivity, whereas the feminine archetype is characterised by emotionality, social sensitivity, intuition, vanity, moodiness and irrationality. Jung insisted that these archetypes be expressed; i.e. is man must exhibit his feminine as well as masculine characteristics, and a woman must likewise express her masculine and feminine characteristics. Otherwise, these necessary characteristics will lie dormant and underdeveloped resulting in a one-sided of personality (Engler, 1979; Jung, 1969; Schultz, 1990).

(c) *The shadow*

The shadow is the opposite of the persona (Jung, 1969; Moller, 1995), and has the deepest roots of all archetypes that contain the basic primitive animal instincts, which is regarded as the dark side of personality. According to Jung (1969), these primitive impulses must be restrained, overcome, or defended against by the individual; otherwise the individual will most likely be punished by society. The shadow may be manifested in a variety of forms such as unaccountable moods, inexplicable pains, feelings of self-destruction, and desire to harm others. Such repressed feelings may form a complex, in conjunction with other impulses,

which is so strong that it appears in the conscious and temporarily dominates the ego. They may also be sublimated and directed into acceptable channels (Jung, 1969; Ryckman, 1985; Schultz, 1990).

However, not only does the shadow include primitive instincts that are the source of problems in society, it is also the source of vitality, spontaneity, creativity, and deep emotion. Thus, if the shadow is totally suppressed, the psyche becomes dull and lifeless. Jung (1969) stated that it is the function of the ego to direct the forces of the shadow, to repress animal instincts enough so that the person is considered civilised, while allowing enough expression of the instincts to provide creativity and vigour. If the shadow is totally suppressed, however, not only does the personality become flat, but individuals also face the possibility of a revolt from the dark side of their nature. The animal instincts do not disappear when suppressed, but instead lie dormant awaiting a crisis or weakness in the ego so that they can regain control, culminating in the complete domination by the unconscious (Jung, 1969; Schultz, 1990).

*(d) The self*

According to Jung (1969), the self is the archetype that presents the integration and harmony of the total personality. Conscious and unconscious processes become assimilated such that the centre of the personality shifts from the ego to a point midway between the consciousness and the unconscious. The self is therefore a point of equilibrium, midway between the polarities of the conscious and the unconscious, which forms the centre of the psyche. To Jung, the full realisation of the self (self-actualisation) is the ultimate goal of a person, something to be striven for but rarely achieved (Moller, 1995; Schultz, 1990).

For Jung, self-actualisation was a process of integration and entailed solving the conflicts between opposing forces within the personality, and as self-actualisation progresses, the self will replace the ego and become the pivotal point of the psyche (Moller, 1995).

(e) *Other archetypes*

Jung (1969) also described other archetypes like birth, death, the child, the hero, and God. According to Jung, a person has to confront the idea of God if he or she wishes to achieve inner harmony. The idea of God, as an archetype, is a reality within the psyche and is thus knowable (Moller, 1995). According to Jung (1969), proof of God in an objective, material (external) manner can never be given, but God is valid in a subjective or inner reality because this is part of the universal experience. Should someone wish to deny God, the archetype will simply find expression in something else requiring worship because an archetype can never be destroyed (Jung, 1969; Ryckman, 1985).

### **2.3. THE NATURE OF PERSONALITY TYPES**

According to Jung (1960; 1969), personality may be divided into one of various psychotypes in terms of two constructs, namely attitudes and functions (Moller, 1995; Spoto, 1995).

#### **2.3.1. Attitudes**

The two basic attitudes in Jung's typology are Extraversion and Introversion (Moller, 1995; Spoto, 1995). Extraversion is an attitude of the psyche characterised by an orientation toward the external world and toward other people (Schultz, 1990). Other characteristics of Extraversion include outgoing, candid and accommodating nature, quickly form attachments, setting aside any possible misgivings, and often venturing into unknown situations (Ryckman, 1985). Introversion, on the other hand, is an attitude of the psyche characterised by an orientation toward an individual's own thoughts and feelings (Schultz, 1990). Characteristics of Introversion are hesitant, reflective, retiring nature, shrinks from objects, is always slightly on the defensive, and prefers to hide behind mistrustful scrutiny (Ryckman, 1985).

These two attitudes do not represent a dichotomy as every personality has both introvert and extravert characteristics (Moller, 1995). However, in every personality one attitude is dominant and conscious, while the other attitude is subordinate and unconscious. The subordinate attitude compensates for the dominant attitude and vice versa. These two

attitudes coincide with the flow of general life energy (or Libido) and thus with the psychodynamics of the personality. The Libido may be directed outwards (Extraverted) or inwards (Introverted) (Moller, 1995).

### 2.3.2. Functions

According to Jung, each person also has a specific way in which he or she observes his world and assigns meaning to each experience (Moller, 1995; Spoto, 1995). Such differences in observing and assigning meaning concern the way people prefer to use their minds, specifically in the way they perceive and the way they make judgements. Perceiving is here understood to include the process of becoming aware of things, people, occurrences, and ideas, and Judging includes the processes of coming to conclusions about what has been perceived (Myers, 1980). The two ways of perceiving, outlined by Moller (1995), Myers (1980) and Spoto (1995) are:

- (a) *Sensing*, which is the initial experience of a phenomenon, without any evaluation, and by which we become aware of things directly through our five senses.
- (b) *Intuition* is an indirect perception by way of the unconscious, incorporating ideas or associations from the unconscious with perceptions coming from the outside.

A basic difference in judgement arises from the existence of two distinct and sharply contrasting ways of coming to conclusions. The two ways of judging, outlined by Moller (1995), Myers (1980) and Spoto (1995) are:

- (a) *Thinking*, which refers to cognitive processes and entails the reasonable and logical interpretation of memory so that it requires meaning.
- (b) *Feeling* entails the subjective evaluation of experiences in terms of emotions such as love, pity and hate.

Jung (1969) referred to Thinking and Feeling as rational functions because they involve evaluation. Sensation and Intuition, on the other hand, involve passively recording, but not

interpreting experience, and Jung (1969) therefore labelled these as irrational functions (Moller, 1995).

### 2.3.3. Jung's Personality Types

Based on the theory presented, personality can be structured into eight types concerning the use of perception and judgement. The following summarises the four scales of eight personality types outlined in Hirsh (1993), Myers (1980), Myers and McCaulley (1985), and Myers (1993).

#### 2.3.3.1. Extraversion (E) or Introversion (I)

In the Extraverted (E) attitude, people focus on the outer world of people and external events, and they direct their energy and attention outward and receive energy from external events, experiences and interactions (Myers, 1980; 1993). By contrast, Introverted (I) people tend to focus on their own inner world of ideas and experiences, and they direct their energy and attention inward and receive energy from their internal thoughts, feelings and reflections (Myers, 1980; 1993). According to Hirsh (1993), the Extraversion-Introversion scales can also be referred to as *energising*, indicating whether a person is energised from the outside world of people or draws energy from one's internal world of ideas, emotions, or impressions.

#### 2.3.3.2. Sensing (S) or Intuitive (N)

People who prefer the Sensing (S) function take information through their eyes, ears, and other senses to find out what is actually happening. They observe what is going on around them and are especially good at recognising the practical realities of a situation (Myers, 1980; 1993). People who prefer the Intuition (N) function prefer to take in information in order to see the big picture and focus on the relationship and connections between facts. They want to grasp patterns and are especially good at seeing new possibilities and different ways of doing things (Myers, 1980; 1993). Hirsh (1993) also describes the Sensing-Intuition scales as *attending*, indicating whether a person generally pays attention to information through the five senses, or obtaining information through the 'sixth sense'.

#### 2.3.3.3. Thinking (T) or Feeling (F)

Thinking (T) is the function that links ideas together by making logical connections. Thinking relies on principles of cause and effect and tends to be impersonal. People who are primarily oriented toward thinking may develop characteristics associated with analytical ability, objectivity, concern with principles of justice and fairness, criticality, and an orientation to time that is concerned with connections from the past through the present and toward the future (Myers, 1980; 1993). Feeling (F) is the function by which one comes to decisions by weighing relative values and merits of the issues. Feeling (F) relies on an understanding of personal values and group values; thus it is more subjective than Thinking (T). Because values are subjective and personal, people making judgements with the Feeling (F) function are more likely to be attuned to the values of others as well as their own (Myers, 1980; 1993). Hirsh (1993) describes the Thinking-Feeling scales as *deciding*, indicating whether a person organises and structures information to make a decision in a logical and objective manner, or in a personal, value-oriented manner.

#### 2.3.3.4. Judging (J) or Perceiving (P)

People who prefer to use their Judging (J) process in the outer world tend to live in a planned, orderly way, wanting to regulate and control life. They make decisions, come to closure, and move on. Their lifestyle is structured and organised, and they like to have things settled, planned and scheduled (Myers, 1980; 1993). People who prefer to use their Perceiving (P) process in the outer world tend to live in a flexible, spontaneous way, seeking to experience and understand life, rather than control it. Plans and decisions feel confining to them, and they prefer to stay open to experience and last minute options (Myers, 1980; 1993). Hirsh (1993) describes these Judging-Perceiving scales as *living*, indicating whether a person prefers to live a planned and organised life, or prefers to live a spontaneous and flexible life.

The eight personality types within the four scales can also be described by presenting a list of words commonly associated with each personality preference, and by looking at how the



preferences affect communication. Table 2.1 presents a list of words commonly associated with each personality types (Hirsh, 1993).

**Table 2.1. PERSONALITY TYPE VOCABULARY (Hirsh, 1993).**

<b>ENERGIZING (orientation of energy)</b>	
<b>Extravert (E)</b> <ul style="list-style-type: none"> <li>• External</li> <li>• Outside thrust</li> <li>• Blurt it out</li> <li>• Breadth</li> <li>• Involved with people, things</li> <li>• Interaction</li> <li>• Action</li> <li>• Do-think-do</li> </ul>	<b>Introvert (E)</b> <ul style="list-style-type: none"> <li>• Internal</li> <li>• Inside pull</li> <li>• Keep it in</li> <li>• Depth</li> <li>• Work with ideas, thoughts</li> <li>• Concentration</li> <li>• Reflection</li> <li>• Rethink-do-think</li> </ul>
<b>ATTENDING (perception)</b>	
<b>Sensing (S)</b> <ul style="list-style-type: none"> <li>• The five senses</li> <li>• What is real</li> <li>• Practical</li> <li>• Present orientation</li> <li>• Facts</li> <li>• Using established skills</li> <li>• Utility</li> <li>• Step-by-step</li> </ul>	<b>Intuition (N)</b> <ul style="list-style-type: none"> <li>• Sixth sense, hunches</li> <li>• What could be</li> <li>• Theoretical</li> <li>• Future possibilities</li> <li>• Insights</li> <li>• Earning new skills</li> <li>• Novelty</li> <li>• Leap around</li> </ul>
<b>DECIDING (judgement)</b>	
<b>Thinking (T)</b> <ul style="list-style-type: none"> <li>• Head</li> <li>• Logical system</li> <li>• Objective</li> <li>• Justice</li> <li>• Critique</li> <li>• Principles</li> <li>• Reason</li> <li>• Firm but fair</li> </ul>	<b>Feeling (F)</b> <ul style="list-style-type: none"> <li>• Heart</li> <li>• Value system</li> <li>• Subjective</li> <li>• Mercy</li> <li>• Compliment</li> <li>• Harmony</li> <li>• Empathy</li> <li>• Compassionate</li> </ul>
<b>LIVING (orientation to the outside world)</b>	
<b>Judging (J)</b> <ul style="list-style-type: none"> <li>• Planful</li> <li>• Regulate</li> <li>• Control</li> <li>• Settled</li> <li>• Run one's life</li> <li>• Set goals</li> <li>• Decisive</li> <li>• Organised</li> </ul>	<b>Perceiving (P)</b> <ul style="list-style-type: none"> <li>• Spontaneous</li> <li>• Flow</li> <li>• Adapt</li> <li>• Tentative</li> <li>• Let life happen</li> <li>• Gather information</li> <li>• Open</li> <li>• Flexible</li> </ul>

Table 2.2 summarises the preferred methods of communication for each personality types, as illustrated in Hirsh (1993).

**Table 2.2. EFFECTS OF PERSONALITY TYPES ON PREFERRED METHODS OF COMMUNICATION (Hirsh, 1993)**

<p><b>Extravert (E)</b></p> <ul style="list-style-type: none"> <li>• Communicate energy and enthusiasm</li> <li>• Respond quickly without long pauses to think</li> <li>• Focus of talk is on people and things in the external environment</li> <li>• Need to moderate expression</li> <li>• Seek opportunities to communicate to groups</li> <li>• Prefer face-to-face over written communication</li> <li>• in meetings, like talking out loud before coming to conclusion</li> </ul>	<p><b>Introvert (I)</b></p> <ul style="list-style-type: none"> <li>• Keep energy and enthusiasm inside</li> <li>• Like to think before responding</li> <li>• Focus is on internal ideas and thoughts</li> <li>• Need to be drawn out</li> <li>• Seek opportunities to communicate one-to-one</li> <li>• Prefer written over face-to-face communication</li> <li>• In meetings, verbalise already well thought out conclusions</li> </ul>
<p><b>Sensing (S)</b></p> <ul style="list-style-type: none"> <li>• Like evidence (facts, details, and examples) presented first</li> <li>• Want practical and realistic applications shown</li> <li>• Rely on direct experience to provide anecdotes</li> <li>• Use an orderly step-by-step approach in presentations</li> <li>• Prefers suggestions to be straightforward and feasible</li> <li>• Refer to specific example</li> <li>• In meetings, are inclined to follow the agenda</li> </ul>	<p><b>Intuition (N)</b></p> <ul style="list-style-type: none"> <li>• Like global schemes, with broad issues presented first</li> <li>• Want possible future challenges discussed</li> <li>• Rely on insights and imagination to provoke discussion</li> <li>• Use round-about approach in presentations</li> <li>• Like suggestions to be novel and unusual</li> <li>• Refer to a general concept</li> <li>• In meetings, are inclined to use the agenda as a starting point</li> </ul>
<p><b>Thinking (T)</b></p> <ul style="list-style-type: none"> <li>• Prefer to be brief and concise</li> <li>• Want the pros and cons of each alternative to be listed</li> <li>• Can be intellectually critical and objective</li> <li>• Convinced by cool, impersonal reasoning</li> <li>• Present goals and objectives first</li> <li>• Consider emotions and feelings as data to weigh</li> <li>• In meetings, seek involvement with tasks</li> </ul>	<p><b>Feeling (F)</b></p> <ul style="list-style-type: none"> <li>• Prefer to be sociable and friendly</li> <li>• Want to know why an alternative is valuable and how it affects people</li> <li>• Can be interpersonally appreciative</li> <li>• Convinced by personal information, enthusiastically delivered</li> <li>• Present points of agreement first</li> <li>• Consider logic and objectivity as data to value</li> <li>• In meetings, seek involvement with people</li> </ul>
<p><b>Judging (J)</b></p> <ul style="list-style-type: none"> <li>• Want to discuss schedules and timetables with tight deadlines</li> <li>• Dislikes surprises and wants advance warnings</li> <li>• Expect others to follow through, and count on it</li> <li>• State their positions and decisions clearly</li> <li>• Communicate results and achievements</li> <li>• Talk of purpose and direction</li> <li>• In meetings, focus on the task to be done</li> </ul>	<p><b>Perceiving (P)</b></p> <ul style="list-style-type: none"> <li>• Willing to discuss the schedule but are uncomfortable with tight deadlines</li> <li>• Enjoy surprises and like adapting to last-minute changes</li> <li>• Expect others to adapt to situational requirements</li> <li>• Present their views as tentative and modifiable</li> <li>• Communicate options and opportunities</li> <li>• Talk of autonomy and flexibility</li> <li>• In meetings, focus on process to be appreciated</li> </ul>

According to Myers (1980), it is easier to recognise a person's preferred way of perception and way of judging than it is to tell which of the two is the dominant process. People therefore need to develop their preferred process to the point where it dominates and unifies their lives. This phenomenon of the dominant process overshadowing the other processes and shaping the personality was empirically noted by Jung in the course of his work and became, along with Extraversion-Introversion preference, the basis of his personality types.

#### 2.3.4. Combinations of attitudes and functions

By combining an individual's dominant attitude and function, an Introvert, for example, can be of the Thinking, Feeling, Sensing, or Intuiting type, and similarly, an Extravert can be of any of the four types (Moller, 1995; Schultz, 1990). The following outlines the combinations of attitudes and functions that describe personality types.

- (a) According to Moller (1995), the *Extraverted Thinking* type is driven by a need to make life's activities dependent upon intellectual conclusions based on objective data. Such people live in accordance with rigid rules, and tend to repress feelings and emotions to be objective in all aspects of their lives. Although such individuals may seem concerned for the welfare of others, they are only interested in achieving their own objectives and will even exploit others in the process. This type could be the social reformer or the self-justifying critic (Moller, 1995; Ryckman, 1985; Schultz, 1990).
- (b) The feelings and behaviours of the *Extraverted Feeling* type are controlled by social norms, and thus by others' expectations. Their feelings therefore vary from situation to situation and from person to person. These individuals repress thinking and tend to be highly emotional. They cling to the values, mores, and traditions they have been taught, and are unusually sensitive to the expectations and opinions of others. In this type, independent thinking is suppressed (Moller, 1995; Ryckman, 1985; Schultz, 1990).
- (c) The *Extraverted Sensing* type is essentially reality-orientated and avoids deep thoughts and contemplation. This personality type focuses on pleasure and happiness, on

continually seeking new experiences and sensations, and tend to be strongly oriented toward reality and highly adaptable to different people and situations (Moller, 1995; Ryckman, 1985; Schultz, 1990).

- (d) The *Extraverted Intuition* type is driven by a need to utilise external opportunities. Because they are so enterprising, they may encourage achievement in others, but often do little for themselves in the process. Jung (1969) believed that these people are excellent in business and politics because of their keen ability to exploit opportunities. They are attracted by new ideas and tend to be creative and to be able to inspire others to accomplish and achieve (Moller, 1995; Schultz, 1990).
- (e) The *Introverted Thinking* type is also driven by thoughts and ideas, but these ideas have their own origin, not in objective data or external sources such as traditional morality, but in themselves, in their own collective unconscious. These people do not get along well with others, have difficulty communicating their ideas, and appear to be cold and lacking in consideration for others. They focus on thought rather than feeling and have poor practical judgement. As a result of their involvement in their own thoughts, they appear as cold, aloof, and socially inadequate (Moller, 1995; Schultz, 1990).
- (f) The *Introverted Feeling* type is the quiet, inaccessible type of person who tends towards pessimism with little consideration for the feelings and thoughts of others. In these people, thinking is repressed, as is the outward expression of emotion, making them very difficult to understand. Although they may seem unemotional, they can experience intense emotions, but the emotions originate in the collective unconscious and may, for example, find expression in religious activities (Moller, 1995; Ryckman, 1985; Schultz, 1990).
- (g) The *Introverted Sensing* type is irrational. They are led by the intensity of their subjective sensations and will overreact to external stimuli. They look upon most human activities with benevolence and amusement. They are highly sensitive esthetically, focus on sensations, and repress intuition (Moller, 1995; Schultz, 1990).

- (h) The *Introverted Intuitive* type's intense intuitive orientation leads to alienation of his external reality and even good friends view him as an enigma. Others poorly understand them, and because their thoughts and feelings are so suppressed, they cannot communicate well with others (Moller, 1995; Schultz, 1990).

#### 2.3.5. Critique of Jung's Personality Type Theory

Jung's theory is not often given the attention it deserves in psychology, simply because it is such a complex theory with contradictions and inconsistencies (Moller, 1995). The theory is characterised by an unnecessarily large variety of concepts for describing personality and its functioning. A specific type of behaviour may, at a given moment, be the result of a single, a few or various archetypes. However, the theory does not explain why a specific archetype will be dominant and motivate behaviour at a certain moment (Moller, 1995). When considering personality types such as Freud's oral and anal phallic types, Jung's Introverted and Extraverted types, Adler's dominant, getting, avoiding, and socially useful types, people are grouped or classified in discrete categories where they are perceived as exclusively Extraverts or Introverts or definitely anal types or oral types. A person either is or is not a particular type and does not have characteristics of one type and some of another. Traits, as those postulated by Gordon Allport and Raymond Cattell, on the other had, involve classifying or categorising people in terms of how much of some characteristic they possess. Trait theorists believe that traits exist on a continuum ranging from a very low or small amount of the characteristic to a large amount (Schultz, 1990).

According to Cattell (1965), traits are conceived through abstracting from experience of many types, as the colour brown is abstracted from our experience of many diverse brown objects. The description of personality has long made use of types. As early as the reign of Edward I in England, a distinction was made between the "born fool" and the lunatic who "by grief or other cause hath lost his reason". The term type also implies discontinuity, and is hence not particularly apt for most personality description because the great majority of human traits appear to be continuous. In intelligence, for example, a population represents every gradation from the level of genius to that of idiocy. For this and other reasons, the basic techniques and

measurement of personality have developed more around traits. Types where they exist have later been defined as patterns or trait measures, any one such type being singled out because it occurs in our populations with some peculiar, useful frequency.

It cannot be denied however that Jung made a very important contribution to the literature on personality (Moller, 1995). Jung's construct of the *self* is considered to be his most significant contribution to the psychology of personality, with his second important contribution being his description of self-actualisation as the achievement of harmony between the systems of personality, which laid the foundation for the humanistic theorists such as Rogers, Allport and Maslow (Moller, 1995). Thirdly, Jung deserves credit for his emphasis on goal-directness of behaviour in which he described behaviour as both causative and purposeful, thereby moving away from the traditional psychoanalytical view of the role of the unconscious. Although Jung (1960) emphasised the unconscious, he demonstrated by means of description of the ego and the personal unconscious, that conscious processes can play an important role in the motivation and development of personality (Moller, 1995).

Although there are many problems involved with operationalising Jung's (1960, 1969) theoretical constructs, rendering little support for his theory, his aspect of psychotypes have been studied empirically (Moller, 1995). The Myers-Briggs Type Indicator (MBTI) was developed for this purpose. Previous studies in which the MBTI scale was used offered support for Jung's typology and showed a correlation between psychological types, career interest, social involvement and service rendering (Moller, 1995). Furthermore, support for Jung's distinction between Introversions and Extraversions also emerges from studies by trait theorists. Cattell (1965) for example, incorporated the two dimensions into his well known 16 Personality Factor Questionnaire. This research indicates that it is in fact possible to operationalise specific concepts from Jung's theory with a view to empirical verification (Moller, 1995).

#### **2.4. EXTENSIONS OF JUNG'S PERSONALITY TYPE THEORY**

The following discussion is an extension of Jung's personality type theory developed by Myers (1980) outlines the sixteen personality types used to empirically study Jung's aspects of

personality types. Myers (1980) explains that personality theory must portray and explain people as they are, and Jung's theory must therefore be extended to include the following three essential processes:

- Constant presence of the auxiliary process
- Results of the combination of Perception and Judgement
- Role of the auxiliary in balancing Extraversion-Introversion

According to Myers (1980), the dominant process is not enough. For people to be balanced, they need adequate development of a second process, not as a rival to the dominant process but as a welcome auxiliary. If the dominant process is a Judging one, the auxiliary process will be Perception: either Sensing or Intuition can supply sound material for Judging. If the dominant process is Perception, the auxiliary process will be Judging one: either Thinking or Feeling can give continuity of aim.

In addition to supplementing the dominant process in its main field of activity, the auxiliary has another responsibility for carrying the burden of supplying adequate balance between Extraversion and Introversion. For all types, the dominant process becomes deeply absorbed in the world that interests them most, and is where it can function at its best. If the dominant process becomes deeply involved in less important matters, the main business of life will suffer. In general, therefore, the less important matters are left to the auxiliary process (Myers, 1980).

Personality type development thus demands that the auxiliary supplement the dominant process in two respects. It must supply a useful degree of balance not only between Perception and Judgement, but also between Extraversion and Introversion. When it fails to do so it leaves the individual "unbalanced", having retreated into the preferred world and consciously or unconsciously afraid of the other world. To live effectively in both worlds, people need a balancing auxiliary that will make it possible to adapt in both directions (Myers, 1980).

2.4.1. The sixteen personality types

When the auxiliary process is considered, it splits each of Jung's psychological types into two. Instead of merely the introverted thinker, there are the introverted thinker with sensing, and the introverted thinker with intuition, resulting in sixteen types in place of Jung's four scales of eight preferences. Table 2.3 illustrates the combination of attitudes and functions, compounded with the auxiliary process to produce the sixteen personality types. These personality types provide a device for viewing all the types in relation to each other (Myers, 1980).

**Table 2.3: THE TYPE TABLE (Myers, 1980)**

		Sensing Types (S)		Intuitives (N)	
		Thinking (T)	Feeling (F)	Feeling (F)	Thinking (T)
		- ST -	- SF -	- NF -	- NT -
Introvert	I -- J	ISTJ	ISFJ	INFJ	INTJ
	I -- P	ISTP	ISFP	INFP	INTP
Extravert	E -- P	ESTP	ESFP	ENFP	ENTP
	E -- J	ESTJ	ESFJ	ENFJ	ENTJ

The following Table 2.4 (extracted from Myers, 1993) provides the characteristics frequently associated with each of the sixteen personality types.



**Table 2.4: CHARACTERISTICS FREQUENTLY ASSOCIATED WITH EACH TYPE (Myers, 1993).**

		Sensing Types		Intuitive Types				
<b>Introverts</b>	<b>ISTJ</b>	Serious, quiet, earn success by concentration and thoroughness. Practical, orderly, matter-of-fact, logical, realistic, and dependable. See to it that everything is well organised. Take responsibility. Make up their own minds as to what should be accomplished and work toward it steadily, regardless of protests or distractions.	<b>ISFJ</b>	Quiet, friendly, responsible, and conscientious. Work devotedly to meet their obligations. Lend stability to any project or group. Thorough, painstaking, accurate. Their interests are usually not technical. Can be patient with necessary details. Loyal, considerate, perceptive concerned with how other people feel.	<b>INFJ</b>	Succeeded by perseverance, originality, and desire to do whatever is needed or wanted. Put their best efforts into their work. Quietly forceful, conscientious, concerned for others. Respected for their firm principles. Likely to be honoured and followed for their clear visions as to how best to serve the common good.	<b>INTJ</b>	Have original minds and great drive for their own ideas and purposes. Have long-range vision and quickly find meaningful patterns in external events. In fields that appeal to them, they have a fine power to organise a job and carry it through. Sceptical, critical, independent, determined, has high standards of competence and performance.
	<b>ISTP</b>	Cool onlookers-quiet, reserved, observing and analysing life detached curiosity and unexpected flashes of original humour. Usually interested in cause and effect, how and why mechanical things work, and in organising facts using logical principles. Excel at getting to the core of a practical problem and finding the solution.	<b>ISFP</b>	Retiring quietly friendly, sensitive, and kind, modest about their abilities. Shun disagreements, do not force their opinions or values on others. Usually do not care to lead but are often loyal follows. Often relaxed about getting things done because they enjoy the present moment and do not want to spoil it by undue haste or exertion.	<b>INFP</b>	Quiet observers, idealistic, loyal. Important that outer life is congruent with inner values. Curious, quick to see possibilities often serves as catalysts to implement ideas. Adaptable, flexible, and accepting unless a value is threatened. Want to understand people and ways of fulfilling human potential. Little concern with possessions or surroundings.	<b>INTP</b>	Quiet and reserved. Especially enjoy theoretical or scientific pursuits. Like solving problems with logic and analysis. Interested mainly in ideas, with little liking for parties or small talk. Tend to have sharply defined interests. Need careers where some strong interest can be used and useful.
	<b>ESTP</b>	Good at on-the-spot problem solving. Like action, enjoy whatever comes along. Tend to like mechanical things and sports, with friends on the side. Adaptable, tolerant, pragmatic and focused on getting results. Dislikes long explanations. Are best with real things that can be worked, handled, taken apart, or put together.	<b>ESFP</b>	Outgoing, accepting, friendly, enjoy everything and make things more fun for others by their enjoyment. Like action and making things happen. Know what's going and join in eagerly. Find remembering facts easier than mastering theories. Are best in situations that need sound common sense and practical ability with people.	<b>ENFP</b>	Warmly enthusiastic, high-spirited, ingenious, imaginative. Able to do almost anything that interests them. Quick with a solution for any difficulty and ready to help anyone with a problem. Often rely on their ability to improvise instead of preparing in advance. Can usually find compelling reasons for whatever they want.	<b>ENTP</b>	Quick, ingenious, good at many things. Stimulating company, alert and outspoken. May argue for fun on either side of a question. Resourceful in solving new and challenging problems but may neglect routine assignments. Apt to turn to one new interest after another. Skilful in finding logical reason for what they want.
<b>Extraverts</b>	<b>ESTJ</b>	Practical, realistic, matter-of-fact, with a natural head for business or mechanics. Not interested in abstract theories; want learning to have direct and immediate application. Like to organise and run activities. Often make good administrators; are decisive, quickly move to implement decisions; take care of routine details.	<b>ESFJ</b>	Warm-hearted, talkative, popular, conscientious, born co-operators, active committee members. Need harmony and may be good at creating it. Always doing something nice for someone. Work best with encouragement and praise. Main interest is in things that directly and visibly affect people's lives.	<b>ENFJ</b>	Responsive and responsible. Feel real concern for what others think or want, and try to handle things with due regard for the other's feelings. Can present a proposal or lead a group discussion with ease and tact. Sociable, popular, sympathetic. Responsive to praise and criticism. Like to facilitate others and enable people to achieve their potential.	<b>ENTJ</b>	Frank, decisive, leaders in activities. Develop and implement comprehensive systems to solve organisational problems. Good in anything that requires reasoning and intelligent talk, such as public speaking. Are usually well informed and enjoy adding to their fund of knowledge.

**2.4.2. Personality type development**

As characterised in Table 2.4, general patterns of behaviour can be attributed to each of the sixteen types. However, the strengths of each type materialise only when the type development

is adequate, otherwise people are likely to have the characteristic weakness of their type, and little else (Myers, 1980).

Type theory assumes that children are born with a predisposition to prefer certain functions (Myers, 1980). Children are most interested in the domain of their preferred function, and are motivated to exercise their dominant function, becoming more skilful, adept, and differentiated in its use. With the reinforcement of constant practice, the preferred function becomes more controlled and trustworthy, and a sense of competence comes from exercising a function well. The pleasure of using the function generalises to other activities requiring use of the function, and leads to the surface traits, behaviours, and skills associated with the function (Myers, 1980). With babies, Jung argued that the ego develops first in a primitive way because the child does not yet have a unique self or identity, and what might be called a child's personality is nothing more than a reflection of the personalities of its parents. Parents therefore play a major role in the child's personality formation, and can impede or thwart the full development of the personality through the way they behave toward their child (Schultz, 1990).

According to Myers (1985), the environment becomes extremely important because environmental factors can foster development of each person's natural preferences, or it can discourage a person's natural bent by reinforcing activities that are less satisfying and less motivating, making skills development more difficult. Environmental interference with type development can result in a "falsification" of type. Falsified individuals may become skilful in using an initially less-preferred function, but may also be less content, may feel less competent, or may be out of touch with their own best gifts.

Type development is seen as a lifelong process of gaining greater command over the functions or powers of perceptions and judgement. Development of type comes from striving for excellence in those functions that hold the greatest interest and from becoming at least competent in the other less interesting, but essential functions (Myers, 1985). In youth, the task is to develop the first (leading or dominant) and the second (auxiliary) functions; in midlife one can gain greater command over the less preferred third and fourth (or inferior) functions. Very few exceptional people may reach a stage of *individuation* where they can use each function easily, as the situation requires. The theory further assumes that youth is the

time for specialisation and that midlife is the time to become a generalist. Optimum use of the four functions is not obtained through a strict level of equality, but through selective development of each function in proportion both to its relative importance to the individual and to its useful relationship to other processes (Myers, 1985). Good type development therefore demands the equal development of a judging and perceptive process – one of which dominates and one being dominated. When both conditions are met, the person's type development is well balanced. In type theory, balance does not refer to equality of two processes or of two attitudes; instead it means superior skill in one, supplemented by a helpful but not competitive skill in the other (Myers, 1980).

## **2.5. RELEVANCE OF PERSONALITY TYPE TO ORGANISATIONS**

Personality types can be used extensively to diagnose organisation and team types, which can then be extrapolated to identifying organisational cultures (Hirsh, 1993). Bridges (1992) outlines sixteen types of organisational culture that are described in terms of Myers-Briggs sixteen personality types. This is based on the assumption that the collated personality types of members within the organisation can determine the combined organisation's personality type. By defining the organisation's type, various assumptions can be extrapolated about the organisation's gifts and dilemmas as described in terms of Myers-Briggs sixteen personality types. Moreover, individuals with different personality types to that of the organisation can experience degrees of alienation and frustration. This then becomes an integral part of interpretations from organisational culture and organisational health surveys (Bridges, 1992). Table 2.5 summarises the effects of the eight personality types in work situations, as illustrated in Hirsh (1993).

**Table 2.5. EFFECTS OF PERSONALITY TYPES IN WORK SITUATIONS**

<p><b>Extravert (E)</b></p> <ul style="list-style-type: none"> <li>• Like variety and action</li> <li>• Often impatient with long, slow jobs</li>   <li>• Are interested in the activities of their work and in how other people do it</li> <li>• Often act quickly, sometimes without thinking</li>   <li>• When working on a task, find phone calls a welcome diversion</li> <li>• Develop ideas by discussion</li> <li>• Like having people around</li> </ul>	<p><b>Introvert (I)</b></p> <ul style="list-style-type: none"> <li>• Like quiet for concentration</li> <li>• Tend not to mind working on one project for a long time uninterruptedly</li> <li>• Are interested in the facts/ideas behind their work</li> <li>• Like to think a lot before they act, sometimes without acting</li> <li>• When concentrating on a task, find phone calls intrusive</li> <li>• Develop ideas by reflection</li> <li>• Like working alone</li> </ul>
<p><b>Sensing (S)</b></p> <ul style="list-style-type: none"> <li>• Like using experience and standard ways to resolve problems</li> <li>• Enjoy applying what they have already learned</li> <li>• May distrust and ignore their inspirations</li> <li>• Seldom make errors of fact</li> <li>• Like to do things with a practical bent</li> <li>• Like to present the details of their work first</li> <li>• Prefer continuation of what is, with fine tuning</li> <li>• Usually proceed step-by-step</li> </ul>	<p><b>Intuition (N)</b></p> <ul style="list-style-type: none"> <li>• Like solving new complex problems</li> <li>• Enjoy learning a new skill more than using it</li> <li>• May follow their inspirations, good or bad</li> <li>• May make errors of fact</li> <li>• Like to do things with an innovative bent</li> <li>• Like to present an overview of their work first</li> <li>• Prefer change, sometimes radical, to continuation of what is</li> <li>• Usually proceed in bursts of energy</li> </ul>
<p><b>Thinking (T)</b></p> <ul style="list-style-type: none"> <li>• Use logical analysis to reach conclusions</li> <li>• Can work without harmony</li> <li>• May hurt people's feelings without knowing it</li> <li>• Tend to decide impersonally, sometimes paying insufficient attention to people's wishes</li> <li>• Tend to be firm-minded and give criticism when appropriate</li>   <li>• Look at the principles involved in the situation</li> <li>• Feel rewarded when job is well done</li> </ul>	<p><b>Feeling (F)</b></p> <ul style="list-style-type: none"> <li>• Use values to reach conclusions</li> <li>• Work best in harmony with others</li> <li>• Enjoy pleasing people, even in unimportant things</li> <li>• Often let decisions be influenced by their own and other people's likes and dislikes</li> <li>• Tend to be sympathetic and dislike, even avoid, telling people unpleasant things</li> <li>• Look at the underlying values in the situation</li> <li>• Feel rewarded when people's needs are met</li> </ul>
<p><b>Judging (J)</b></p> <ul style="list-style-type: none"> <li>• Work best when they can plan their work and follow their plan</li> <li>• Like to get things settled and finished</li> <li>• May not notice new things that need to be done</li> <li>• Tend to be satisfied once they reach a decision on a thing, situation, or person</li> <li>• Reach closure by deciding quickly</li> <li>• Seek structure and scheduled</li>   <li>• Use lists to prompt action on specific tasks</li> </ul>	<p><b>Perceiving (P)</b></p> <ul style="list-style-type: none"> <li>• Enjoy flexibility in their work</li> <li>• Like to leave things open for last-minute changes</li> <li>• May postpone unpleasant tasks that need to be done</li> <li>• Tend to be curious and welcome a new light on a thing, situation, or person</li> <li>• Postpone decisions while searching for options</li> <li>• Adapt well to changing situations and feel restricted without change</li> <li>• Use lists to remind them of all the things they have to do someday</li> </ul>

Hirsh (1993) explains that the use of personality types have become one of the most widely used psychological assessment tools with both individuals and groups. As noted by trainers and participants in organisational settings, the use of psychological type in group settings can be quite dramatic. Group exercises clearly demonstrate the concepts of psychological type – people are able to affirm and understand not only their own preferences but also the preferences of others. The application of personality types for diagnostic and assessment purposes may be applied in a wide variety of settings, from small partnerships to large Fortune 500 companies, as well as in educational, governmental, medical and religious organisations.

Wherever personality types are used, it helps people become more self-aware, especially of their personality preferences for source of energy, information gathering, and decision making, and how these preferences affect their approach to work and life in general (Hirsh, 1993). Part of the reason personality type is so effective for organisational use is that it can help reduce unproductive interpersonal and intra-organisational conflict. Project team members and departmental unit members find that using personality type is helpful in assessing the strengths and blind spots of their team in a non-judgmental way. Individual employees can also use personality type to evaluate the fit between them and their jobs by determining the personality characteristics more associated with a particular job (Hirsh, 1993).

## **2.5. PREVIOUS CORRELATIONAL RESEARCH**

Correlative research studies have been conducted on personality types and its relationship with other variables, and have confirmed the relationship between personality types and other variables. These include the relationship between personality types and career choices (Hanson, 1980), teaching styles (Cunningham, 1962) and preferences (Carlyn, 1976), specialities of medical students twelve years after graduating (Myers, 1986), student survival in law school (Miller, 1967), the area of art study of senior art students (Stephens, 1973), job satisfaction (Williams, 1975), career success in the accounting profession (Jacoby, 1981), counselling clients' personalities, expectations and problems (Arain, 1968), personality types of artistically talented students (Behnap, 1973), self-actualisation (Frederick, 1975), success in retail store management (Gaster, 1982), liberal religion (Gerhardt, 1983) computer assisted

instruction in a self-paced technical training environment (Hoffman, et.al. 1981), and health professionals (McCaulley & Morgan, 1982).

Other correlational studies specific to an organisational and team-based context include the study of the relationship between personality types and management styles (Hartston, 1975), role foci of leaders (Church, 1982), management level and job foci (Church & Allie, 1986), dominant personality style most successful in exemplifying effective situational leadership within a corporate organisation (Dietle, 1980), the creative leader (Gryskiewicz, 1975), career patterns (Coetzee, 1996) and communication style preferences (Yeakly, 1983). A more specific research study investigated the relationship between personality type, using the MBTI, and Belbin's team roles (Botha, 1995). The findings of this study were inconclusive in determining a relationship between the personality type and team roles. There may however be a correlation between personality types and team roles if different models of team roles or personality types are used. These research studies can contribute to understanding the context of the relationship between personality types and team roles, which will be further explored in the theoretical relationship between personality types and team roles.

## 2.6. CHAPTER SUMMARY

Personality was defined and a background to Jung's personality theory was provided. Thereafter, the chapter provided a critique of Jung's personality type theory prior to presenting extension of Jung's personality type theory by focusing on the sixteen personality types developed by Myers (1980).

The chapter further explained personality type development, the relevance of personality types to organisations, as well as listing previous research correlating personality types and other variables. Chapter three discusses team roles with specific reference to a model of team roles.

## **CHAPTER 3: TEAM ROLES**

This chapter will begin by providing a definition of team roles, the theoretical background of the team role theory, the nature of team roles, as well as Belbin's (1982) model of team roles. A critique of Belbin's (1982) model will be presented before expanding into extensions of Belbin's (1982) model of team roles by focusing on the TeamBuilder model of team roles. Finally, the relevance of team roles to the organisation will be explained before providing references to previous correlational research.

### **3.1. DEFINITION OF TEAM ROLES**

The concept of role was developed by sociologists to explain how organisations function (Belbin, 1993). People are generally judged by what is visible about them, such as age, race, gender, etc. When such features fail to provide adequate information on the roles that people adopt at work, other cues like uniforms are introduced, which may denote a person's role or rank or even occupation. However, the roles that people play in a team are seldom evident at all from their features or general appearance, but rather in exhibiting certain regularities in their behaviour. For example, they talk a lot or a little, they intervene when particular openings present themselves; and their contributions inevitably assume one form of behavioural characteristic or another (Belbin, 1993).

Robbins (1993) correspondingly defines a role as a set of expected behaviour patterns attributed to someone occupying a given position in a social unit, whereas Margerison and McCann (1989) refer to roles as work preferences, described as the different ways in which individuals in a team approach tasks. Belbin (1993) defines the term 'team role' as a tendency to behave, contribute and interrelate with others in certain distinct ways within a team. Francis and Young (1992) similarly define a team role as the contribution that a person makes to his or her team, and that an effective team depends on each member's understanding of his or her role and the relationships between that role and other roles held by team members.

A number of team role frameworks are postulated. Buhler and McCann (1989) refer to the need for the roles of innovator, organiser, trouble-shooter, communicator and strategist in

management teams. Ends and Page (1977) describe team roles as services, also known as contributions. The group's *task-oriented* services are energising, searching, polling, evaluating, and summarising; whereas the group's *process-oriented* services are encouraging, including, standardising, and ventilating. The combined group task and group process services are evaluating, diagnosing, testing, mediating and conciliating (Ends & Page, 1977). Francis and Young (1992) identify ten team members' roles. These include *process manager* (key contribution is facilitating meetings), *concept developer* (key contribution is vision), *the radical* (key contribution is conceptualising), *the harmonizer* (key contribution is supporting), *the technical expert* (key contribution is specialised know-how), *the output driver* (key contribution is pushing), *the critic* (key contribution is impartial evaluation), *the co-operator* (key contribution is flexibility), *the politician* (key contribution is driving), and *the promoter* (key contribution is linking).

Margerison and McCann's (1989) framework, on the other hand, is divided into behaviours and roles. The two aspects of behaviour are 'exploring', that is, searching, creativity and contacting – known as 'diverging' activities; and 'controlling', that is, concern for detail, precision, standards, rules, planning – known as 'converging' activities. The first role is "advisory", that is, planning, research, training and providing support; and the second role is "organisational", that is, setting up the systems and procedures. Behaviours and roles are arranged on two dimensions and it is suggested that individuals have behavioural and team roles that must be balanced for the benefit of the team. A further activity, known as 'linking', brings team members together in an integrated and co-ordinated manner to enhance the team's synergism.

From the definitions above, it is clear that team roles are sets of distinct behaviours within a team, and when structured appropriately and with a shared understanding of each role's contribution, will enhance team effectiveness. For the purposes of this study, team roles can be defined as the tendencies to behave, contribute and interrelate with others in certain distinctive ways within a team (Belbin, 1993), and that an effective team depends on each member's understanding of his or her role and the relationships between that role and other roles held by team members (Francis & Young, 1992).



### 3.2. THEORETICAL BACKGROUND TO TEAM ROLES

The following discussion contextualizes the definition of team roles by providing the theoretical background to team roles.

#### 3.2.1. Characteristics of effective teams

Teams have increasingly become significant resources in organisations, contributing to significant achievements in business, charity, schools, government, communities, and the military (Chance, 1989; George, 1977; Greco, 1988; Timmons, 1979; Tjosvold, 1991; Margerison & McCann, 1989; Senge, 1990; Stott & Walker, 1995; and Woodcock, 1979).

Weiss (1990) defines an effective team as meeting a specific set of goals or objectives, and is organised around a predetermined set of identifiable roles related to activities that accomplish the team's goals and objectives. According to Stott and Walker (1995), such effective teams are situational. A team for example operating in an uncertain environment will require an active preference in a certain role if the team is to be effective. In other circumstances, the presence of that role may not be quite so important and may even be a liability. An effective team requires a balance of team roles and that certain roles would be accentuated at certain stages of the team's development, depending on the situation. For example, when a team is going through the process of setting project direction or establishing needs, the role of coordinating or Shaping is essential (Belbin, 1992). When the team reaches the stage of actual planning, however, the role of monitoring or evaluating (Belbin, 1993) becomes invaluable. Furthermore, these roles may also be more pronounced at different phases of the team's lifecycle (Parker, 1996).

\*

Francis and Young (1992) argue that a balanced team is more likely to be effective than one that is homogeneous in terms of individual roles. In order to achieve a balance, it may be necessary to ask some members to adopt secondary roles, and the appropriate behaviours can be learned and developed. If there is no one in the team who naturally evaluates ideas critically, it is important to encourage someone to play 'devils advocate' and this can be done on a rotational basis. Stott and Walker (1995) have also argued that it may be necessary to ask some members to adopt secondary roles in order to achieve a balance within the team.

A balanced team therefore, as outlined by Francis and Young (1992) and Stott and Walker (1995), will be determined by the needs of the team at any given phase of the team's development, and in the process of it completing its task, as well as the members' ability to adopt secondary roles. Hence, an individual's preferred team role will be valued at certain stages, and their effectiveness in their role will be determined by the fit between the individual and their role. Woodcock (1979) argues that the successes of a team not only depends upon the individual skills of team members' but also on the way individuals support each other and work together. It was originally thought that there might be a personal characteristic mix, a sort of chemistry, which would be the right formula for producing a high performance team. It was this notion that sparked further investigation by Belbin into the combination of characteristics that resulted in successful teams (Stott & Walker, 1995).

### 3.2.2. Belbin's Research on Teams

Francis and Young (1992) explain that Belbin conducted several highly significant experiments on team roles. In these experiments, subjects participated in a lengthy management course and then formed into teams to complete a management task. Belbin, using a range of psychometric tests, studied the personalities and mental capabilities of team members and discovered that each person had a strong tendency to play a distinct but limited set of roles. Particular individuals took on particular roles, with the pattern of role balance exercising a crucial effect on the outcome. A poor balance would produce a poor outcome, and teams with competent members would not necessarily produce favourable results since the balance might be wrong.

Belbin's (1982) research identified and described nine basic team roles, and found that the performance of each team can be predicted with a significant degree of accuracy by analysing a battery of psychometric tests conducted for each team member. The successful teams were those whose membership was broad enough so that all the necessary roles were filled.

### 3.3. THE NATURE OF TEAM ROLES

Stott and Walker (1995) suggests that common wisdom dictated that if the best people are put together, it would inevitably result in a high performance team. Traditionally, therefore, the most skilled people would be selected for the team, and in some cases, people assume team membership by virtue of their position. This approach is prevalent in most organisations, and it has been found that such an approach does not guarantee success (Belbin, 1982; Belbin, 1993).

This therefore requires an elaboration of the distinctions between the team role and the functional role, role versatility and role priority, coherent and incoherent role profiles, eligibility and suitability, and an understanding of role suppression.

#### 3.3.1. Team role and functional role

For practical purposes, one needs to distinguish between a person's team role and a functional role, where the latter refers to the job demands that a person must meet by supplying the requisite technical skills and operational knowledge. The significance of this difference is that people appointed to a given job are likely to vary greatly in the team role, but their functional role should be the same (Belbin, 1993).

#### 3.3.2. Role versatility and role priority

Belbin (1993) argues that behaviour in a team will be simple and uncomplicated when there is an absence of conflicting factors. Role versatility requires team members' to adopt their secondary team roles when the team is not balanced with all the necessary team roles. Role priority is accentuated at certain stages in the team's development. A given team role will have a clear priority over other team roles and will be recognised readily by colleagues. Such a person will gain rapid acceptance in a team if in possession of the requisite role, but will have difficulty in shifting from that role once the need for it disappears. So in general terms, the advantage of simplicity has to be offset against the limitations arising from rigidity. Whether

such a disposition is seen as an advantage or disadvantage will depend on the circumstances, and the development phase of the team.

### 3.3.3. Coherent and incoherent role profiles

A coherent role profile is the self-knowledge of one's preference for a team role and the actual fulfilment of that preferred role (Belbin, 1993). A team-role profile, resulting from a team-role assessment, ranks the degree of individual affinity with each of the nine roles. That does not mean, however, that people are clear about their self-image or that they project any evident role image to others. Furthermore, coherence is also determined by the congruence between the projected image and the self-image (Belbin, 1993).

The difference in self-knowledge between those who are clear about their team role and those who are not is well illustrated by the contrast in approach between experienced managers on the one hand, young graduates venturing into industry for the first time on the other. The experiments conducted by Belbin (1982) revealed that experienced managers generally stood out in terms of which team roles are played and which were not. The points available for distribution between the team roles were spread between a few favoured categories, while at the same time they avoided the good impression items. By contrast, young graduates, possibly imbued with the unrealistic notion of all-round excellence, spread their responses thinly and with good impressionable items often being awarded more points than those that denoted true team-role behaviour. In other words, the inner confidence of experienced managers appeared to be derived from the clarity of their self-knowledge, whereas young graduate entrants to industry seemed uncertain about their own identity (Belbin, 1993).

Mature people, according to Belbin's (1982) research, were characterised less by the coherence of their team role profiles than by the supremacy of all their most desirable attributes. Their contributions were easy to recognise and they controlled others' expectations of them as supermen and superwoman. Although many psychometric tests in the experiment suggested individual weaknesses, Belbin (1993) questions whether the weakness really existed given the fallibility of psychometric instruments and whether the weaknesses even mattered.

The salient point in Belbin's research was the eventual discovery that a so-called weakness was often no more than the obverse side of the strength. Hence, the Monitor Evaluator who possesses analytical powers allied with a capacity for objectivity is probably not likely to be an inspiring individual. For each one of the team roles, Belbin discovered a corresponding weakness and the more prominent the strength the more prominent the weakness was likely to be (Stott & Walker, 1995).

In conventional assessment terminology, weak points are referred to as 'development areas', with the advice that they should be overcome. However, Belbin's (1993) response is that allowable weaknesses are justified because the price that is paid for a strength will not matter if it is a fair trade-off. The only proviso is that the person with the strength develops an appropriate strategy for managing that weakness (Belbin, 1993).

#### 3.3.4. Role eligibility and suitability

Belbin (1993) outlines numerous examples in which an individual was technically ideal for a given job, but was diagnosed as unsuitable, and someone ineligible on technical grounds is recommended as ideal. In certain examples, a cost clerk's preference was a Shaper / Resource Investigator, but was acting as a Completer / Implementer in an organisation. As a result, his or her full potential was not realised and his or her undetected role characteristics were being used fruitfully outside the organisation. The problem with the cost clerk, as in other examples, was that they were presumed ineligible for jobs for which they might have been considered, but were suitable. There is another group of jobholders who fall into the diametrically opposite quadrant of being eligible but unsuitable. Their qualifications equip them perfectly for their jobs they hold, but their performance is inadequate. Taking eligibility and suitability as independent dimensions, a two-by-two table can be constructed, with a further two quadrants presenting themselves for evaluation. One quadrant deals with people who are eligible and suitable, seemingly an ideal category, and second encompasses an impossible-sounding category of people who are both ineligible and unsuitable. This is illustrated in table 3.1 below.

**Table 3.1. ROLE ELIGIBILITY AND SUITABILITY (Belbin, 1993)**

		<b>Suitability</b>	
		<b>Suitable</b>	<b>Unsuitable</b>
<b>Eligibility</b>	<b>Eligible</b>	<b>Ideal fit</b>	<b>Poor fit</b>
	<b>Ineligible</b>	<b>Surprise fit</b>	<b>Total misfit</b>

Table 3.2 illustrates the observed behaviours associated with each quadrant.

**Table 3.2. OUTCOMES OF ROLE ELIGIBILITY AND SUITABILITY (Belbin, 1993).**

	<b>Suitable</b>	<b>Unsuitable</b>
<b>Eligibility</b>	Disappointing. Ideal candidates move to greener pastures	The real problems. The poor fits are reluctant to move and become difficult
<b>Ineligibility</b>	Surprise fits perform surprisingly well in the job they are contended and tend not to leave.	No problem. Total misfits leave of their own accord

### 3.3.5. Role suppression

According to Stott and Walker (1995), preferred roles exist among members, but they are not enacted because of cultural norms (either in the team or in the organisation), power relationships and reward systems. An example could be an individual who in department meetings carried out a worthwhile Monitor Evaluator role of questioning policies and identifying the flaws in current practices. A rigid and traditional leadership largely condemned this behaviour, and the individual failed to obtain a much-deserved promotion. This led to avoidance behaviour by keeping quiet in meetings, amounting to role suppression.

### 3.3.6. Belbin's Model of Team Roles

Belbin (1982) identified nine roles within an effective team. This is also consistent with suggestion by Stott and Walker's (1995) that nine team members is the ideal size of an effective team. The team roles identified by Belbin for successful teams are: Co-ordinator, Shaper, Plant, Monitor Evaluator, Implementer, Team Worker, Resource Investigator, Completer, and Specialist. The descriptions of these team roles will now be explored.

#### 3.3.6.1. Co-ordinator

This role is one of two team leadership roles, and is substantially different from that of the more directive leader called the Shaper (Belbin, 1982; Belbin, 1993). The Co-ordinator likes to identify people's skills and abilities, and use them. He or she will involve colleagues in decisions, but does not lose control. Co-ordinators ensure that things get done, because he or she retains a focus on the task. He or she politely brings discussions back on line and ensures that contributions are relevant to the matter at hand. In a management meeting, for example, a manager who enacts the co-ordinator role will give colleagues the feelings that their contributions are important and their skills are there to be recognised and utilised. The Co-ordinator will seldom simply announce decisions, but will seek input from interested parties. People in the Co-ordinator role are usually quite intelligent, but this can be problematic if their intellect far exceeds that of other team members. They are emotionally stable and secure, not showing much concern for the problem of others leading. They can be assertive and pragmatic, and has faith in his colleagues to do a good job (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.2. Shaper

The Shaper is in direct contrast to the co-ordinator (Belbin, 1982; Belbin, 1993). He or she is brash and has a sharp, sometimes uncontrolled tongue. People in the Shaper role makes rapid, incisive decisions and gives direct orders, which they would probably argue are more productive and less time consuming than participative episodes. Essentially, Shapers want to see quick results, likes 'yes people' and has no time for those who question his decisions. They

are extremely task-centred and people's personal needs tend to take second place. They are not very popular with colleagues, but they at least make sure that things get done promptly. Their no-nonsense approach gives rise to impatience, intolerance and competitiveness, may be emotionally insecure and seems to have boundless energy. They are often critical of others but are incapable of accepting criticism themselves, with some team members often reacting to what may be seen as a bullying style. It is unlikely that the Shaper heading a professional organisation will get lasting commitment and co-operation from colleagues, unless another colleague adopts a more conciliatory role. There are situations, however, where the Shaper role may be necessary to shake things up and make rapid changes (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.3. Plant

The Plant is the person with ideas and can take a team out of a condition of dull mediocrity into new realms of performance (Belbin, 1982; Belbin, 1993). The main activity for a person occupying the role of the plant in a team is suggesting new ideas, proposing solutions to problems, advancing new approaches and formulating new ways of organising data. The person in the Plant role has a highly creative mind and likes to search for the new ways of doing things. This may be in conflict with other roles, namely, the Shaper, the Monitor Evaluator and the Implementer. As a result, the Plant is quite likely to disappear into the background unless there is a skilful team leader who can draw on his creativity and at the same time direct it into creativity that is in line with the task objectives. Rejecting the Plant is injurious to the team, since the unit will almost certainly lack that vital spark which is the hallmark of high performance. The Plant is also a loner who may not like to be bound by group norms and restricted by petty rules and procedures. In systems that are large and bureaucratic, it seems difficult to provide the conditions in which the Plant role can be nurtured. The Plant can be problematic to the rest of the team, is often undiplomatic and his or her radical ideas seem to be divorced from reality (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).



#### 3.3.6.4. Monitor Evaluator

If the Plant is the one who creates ideas, the Monitor Evaluator is the one who breaks them down and often discards them (Belbin, 1982; Belbin, 1993). This role provides a quality control mechanism, meticulously finding the faults in proposals and suggestions, and rejecting any idea, which has not accommodated the necessary constraints and limitations. As a result, the Monitor Evaluator can easily incur the wrath of the Plant role and can indeed antagonise the rest of the team by an over-critical and negative approach. The Monitor Evaluator has a great capacity for interpreting complex data and, more often than not, is able to choose the best decision from a range of alternatives. Individuals' occupying this role is not risk-takers, but errs on the cautious side, which can be frustrating for the Plant. The Monitor Evaluator is of great value to teams that face considerable complexity and uncertainty, since he or she will probably prevent colleagues from taking on projects that are inadvisable and that are not aligned to company mission. At operational, rather than strategic levels, he or she will certainly have a clear idea of what will work and what will not (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.5. Implementer

The Implementer is a solid, reliable individual who thrives in a stable environment (Belbin, 1982; Belbin, 1993). Individual's who occupy this role tend to be down-to-earth, conscientious and disciplined, and as such, can easily accept rules and procedures, seeing them as necessary constraints. Unlike the Plant who thrives on ambiguity, the Implementer likes to be told what to do. In return, these individuals will get on with the job and work carefully for good results. The Implementer is also meticulous about quality and quite determined, which may be in conflict with the Shaper who may not share the same concern for quality. The Implementer is considered essential to the effective functioning of the team, but despite these admirable qualities, their limitations can be frustrating. Implementers lack vision and react badly to situations that may involve ambiguous information and change. In essence, Implementers are seen as good, reliable people who will get jobs done (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.6. Team Worker

The Team Worker is everyone's friend, but may be less concerned about getting the task completed than other, more task-orientated colleagues (Belbin, 1982; Belbin, 1993). Individuals occupying this role have effective interpersonal skills and are adept at developing team cohesion. They are good at analysing people's behaviour and being able to understand their moods and feelings. They are emotionally stable and without a strong competitive streak, preferring instead to emphasise harmony. Their complementary role is used to help build team spirit and heal the wounds caused by interpersonal differences, especially where they (the team) are predominantly task-centred. Apart from the ability of such individuals' to build and maintain relationships among people, they are good at promoting development and, when in senior positions, they are usually effective delegators, providing opportunities for colleagues to gain development experience valuable to their careers (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.7. Resource Investigator

This role provides the link between the team and the outside world, being the one most likely to seek ideas and develop contacts with other units and organisations (Belbin, 1982; Belbin, 1993). The purpose of these activities is to ensure that the team acquires the best ideas and that it does not suffer the effects of insularity. The Resource Investigator, like the Coordinator, likes to develop people's talents, although is not quite as stable as the Coordinator. The Resource Investigator is impulsive and requires lots of variety, challenge, and constant stimulation in their work. It is this tendency to become bored quickly that can be problematic. They can also fail to stay closely focused on the relevant issues. Despite these negative aspects, the team may benefit considerably from the outward looking orientation and capacity of the Resource Investigator to keep in touch with life outside the team. In a competitive environment, the person who adopts this role may look for examples of good practice in other organisations, either by visiting and observing them or by being constantly in social contact with colleagues outside (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

#### 3.3.6.8. Completer

Belbin (1982; 1993) and Stott & Walker (1995) identify the Completer as one of life's "naggers" who can be infuriating to team colleagues. These individuals invariably meet and communicate the urgency of deadlines. Whilst intentions are good, it is understandable that some things either fall behind schedule or fade into the background. Where Completers are part of a project, however, this is unlikely to happen, since they will ensure colleagues are constantly reminded of the tasks, status and what they must do to reach a satisfactory conclusion. Their influence also extends beyond time deadlines, and focuses on attention to detail as well, often checking everything themselves, so that mistakes do not pass through unnoticed. With a Completer in the team, it is more likely that the output will be accurate and on schedule, and that nothing important will be omitted.

#### 3.3.6.9. Specialist

The Specialist is the team member who provides the expertise and knowledge often vital for effectively completing tasks (Belbin, 1982; Belbin, 1993). Specialists have a more functional role, compared with that of other team members, and their behavioural role becomes secondary. Because of their expertise, their inclusion is compulsory, thereby compelling other team members to accept them. The Specialist's task is to provide professional or technical information, which the team needs for specific projects, and does not possess otherwise. Due to the nature of the role, the Specialist may not be a member of fairly permanent or long-term teams, but may join temporarily as the occasion arises. Specialists are normally self-motivated, somewhat opinionated, and dedicated (even dogmatic) to their own particular area of expertise. The Specialist should be adept at translating complex information into 'lay' terms and assisting other team members in understanding technical problems (Belbin, 1982; Belbin, 1993; Stott & Walker, 1995).

### 3.3.7. Critique of Belbin's (1982) Model

Although Belbin's (1982; 1993) model of team roles is arguably the most widely used tool for diagnosing team roles, there are some criticisms, shortcomings, and competitive alternatives that are extensions of its original work. Murphy (1998) argues that the team roles outlined by Belbin (1982; 1993) are represented as requiring varying degrees of intellect, for example in the case of the plant requiring a higher intellect, and lower levels of intellect, as in the case of the co-worker. The language used by Belbin (1982; 1993) is male oriented and presented in a prescriptive way, for example "you are a....", thereby labelling and categorising team members as a *Plant* or a *Monitor Evaluator*, implying that individuals are restricted to these roles without the possibility of extending beyond them. Belbin's (1982) model identifies an apparent link between a Shaper and a Company Worker, but refers to it as a boss / subordinate style of relationship and not colleagues applying a process together. Hence, Belbin's (1982) model does not regard each team role as sequential and interrelated with each other. Also, although Belbin's (1982) model profiles a team member's role, it provides only basic and limited developmental advice.

### 3.4. EXTENSIONS OF BELBIN'S (1982) MODEL

TeamBuilder is an alternative model that draws on the original work done by Belbin (1982), and outlines a team process for getting things done which is non-judgmental, not hierarchical in nature, non-threatening, makes no prejudicial assumptions of intelligence, and makes no assumptions about management skills (Murphy, 1998). Whereas Belbin's model has nine team roles that are distinguishable by status, importance, and intelligence, the TeamBuilder model identifies five team roles of equal value and status. The model further outlines an individual's preference for contributing within a certain role, rather than labelling and categorising them as their preferred role (Murphy, 1998).

Although the TeamBuilder model is primarily a 5-stage, 15-step sequential management process for getting things done in a team, it is an invaluable tool for assessing an individual's preference for a certain team role (Murphy, 1998). The model is based on the assumption that an individual develops a primary preference for a certain team role within the model.

Consequently, an individual's sustainable contribution to a team is primarily determined by the team member's satisfactory fulfilment of his preferred team role and the team's need for that specific team role (Murphy, 1998).

Peter Milburn originated the TeamBuilder model in the United Kingdom. It was originally founded on his personal psychological research and that of Belbin, Houland, Litterer, Janis, Sherif, and others. The TeamBuilder model is an extension of the research done by Belbin, and has various components not present in the Belbin (1982) model (Murphy, 1995). These will now be explored.

#### 3.4.1. Components of TeamBuilder

Components of TeamBuilder include measures of an individual's preference for teamwork, individual preference for a team role, projected or communicated team roles, awareness of a preferred team role, and a team role preference under pressure.

##### 3.4.1.1. Preference for teamwork

Murphy (1998) argues that we too often assume that an entire team wants to work together, whereas often do and others do not although some members will, and others not. This component of TeamBuilder looks at a team member's orientation towards teamworking, indicating whether an individual enjoys a team approach to completing tasks, or someone who is more of an individualist. It explores experiences, which may be rewarding, unrewarding or indifferent.

##### 3.4.1.2. Preference for team roles

This component assumes that people perceive different priorities and ways to approach a task, and that they have a choice about how and when they contribute to a team, and that these differences of priority and approaches need to be managed in order to optimise productivity. These preferences may be more single-minded or more flexible and some will be sustainable. Sustainable role preferences are levels of preference where the team member will volunteer or

respond consistently when asked (Murphy, 1998). TeamBuilder reveals team member role preferences as sustainable or not sustainable in relation to a practical, easily understood and readily applied 5-stage model. Apart from revealing the most sustainable role preference, TeamBuilder also reveals a team member's secondary role preference, which indicates an individual's alternative sustainable role preference.

#### 3.4.1.3. Projected or communicated team role preferences

People can have natural, learned or adopted communication styles that may either aid or mask their intended messages. Misunderstandings within the team can impact on relationships and contribute to a lack of co-ordination and cohesion. Ultimately, tensions and stress may occur particularly when people feel they cannot see others' viewpoint, and at this point productivity and achievement can suffer. Belbin (1993) argues that the self-image and the projected image must cohere and that a strategy exists for coping with areas of deficiency. TeamBuilder heightens the awareness of these issues, and helps team members to understand what role preferences they are projecting or communicating to others, thereby avoiding creating false or unreliable expectations of performance (Murphy, 1998).

#### 3.4.1.4. Awareness of preferred team role

Apart from revealing and structuring role preferences, TeamBuilder also looks at each member's level of awareness of the tasks most associated with their main contribution preferences. TeamBuilder provides self-development advice to raise each team member's awareness of the contributions they could make. Low awareness levels provide clues to whom may have influenced the team member, for example, dominant corporate culture or values, rigid procedures, mentor reflection and long term repetitive job roles (Murphy, 1998).

#### 3.4.1.5. Team role preference under pressure

It is difficult to distinguish between people that are experiencing (productive) dynamic pressure and highly pressure that is detrimental which may change their view on how or what they contribute to a team. Feelings of being highly pressured may however only last for a few

moments, for example, or may prevail for several hours or over days. Any change in contribution preference is, therefore, likely to be temporary, open to misinterpretation, and may lead to false expectations of performance. The net result may be a domino effect and a build up of pressure in a team to the point where productivity and cohesion suffer. At exactly the point where a team needs to be mutually supportive, they can fragment into disparate groups of individuals, some pursuing their own agenda, while others simply feel "let down". TeamBuilder identifies these often-unrecognised changes in behaviour and communication, and provides each team member, and the team as a whole, with signs to recognise that pressure may be becoming unacceptable (Murphy, 1998).

#### 3.4.2. TeamBuilder model of team roles

The TeamBuilder model outlines five distinct roles through which teams achieve their objectives, each containing behavioural activities unique to a specific role (Murphy, 1998). The five team roles are: Driving Onward, Planning Ahead, Enabling Action, Delivering Plans, and Controlling Quality. These team roles are described in the next section.

##### 3.4.2.1. Driving Onward

The Driving Onward role includes seeing 'big picture' opportunities, assessing 'bottom line' benefits, instinctively reaching conclusions rather than making a detailed analysis of a situation, and often making decisions intuitively. Whenever major decisions need to be made in a team, it is usually the people who prefer to 'drive things onward' who will be first to propose or decide on a course of action. Team members whose approach is to 'drive' can be enthusiastic organisers and team developers, and are likely to grasp the opportunities presented, often cementing contacts for a team to use. Problems facing a team can present welcome challenges to these people, as they are invariably prepared to act as problem solvers. They can also act as catalysts for improvement, making the team a better place to work. They will be likely to push a team onward, particularly when progress is slow (Murphy, 1998).

Other typical activities in this team role include developing concepts such as setting out a team's vision, directing action such as urging in order to get things done, and providing innovative ideas, which can be a catalyst for a team introducing new methods (Murphy, 1998).

#### 3.4.2.2. Planning Ahead

The role applies clear and logical thinking to setting specific and measurable targets for putting a team on course for achieving them. This can involve early problem solving and decision making, often as a result of analysing in depth, diagnosing in detail and judging with confidence. People who prefer to 'plan ahead' will normally base their projections on both past performance and present activities. They will also be inclined to look for points of potential failure, in order to build contingency reserves and set courses of action that will make success more certain (Murphy, 1998).

Other typical activities in this team role includes strategic planning such as cutting through detail, estimating feasibility such as comparing the work rate demanded with the team's capacity, and forecasting problems, and scheduling tasks such as creating a timetable for each task (Murphy, 1998).

#### 3.4.2.3. Enabling Action

The characteristics of people who prefer to enable include identifying the essential resources for success, preparing a strong case for support (both internal and external to the team), communicating effectively using natural skills of persuasion, and negotiating well on behalf of a team. Generally people who prefer Enabling Action rely on a combination of available facts and their personal values to influence their decisions. They are generally outgoing and friendly and will use their capabilities to persuade a team of the merits of new ideas – and to promote the team to the rest of the organisation. These team members can be enthusiastic acceptors of new initiatives or changes to current plans or procedures, and will take a new plan and ensure that a team gets all available resources (including people with appropriate skills) to follow it through (Murphy, 1998).



#### 3.4.2.4. Delivering Plans

Turning plans into reality, being realistic, and not being unduly influenced by the 'big picture' or the fine detail, as well as ensuring tasks get done immediately are characteristics of people with preference for Delivering Plans. They tend to live in the present and recognise what needs attention now. They are most comfortable when implementing a plan and may not be perturbed by the past, and may not even be concerned by future scenarios. They are likely to base their decisions on observation and common sense (Murphy, 1998).

Other specific activities in this team role include producing the actual output such as organising the flow of work, co-ordinating the team's effort, and maintaining the team's morale such as giving continual support, as team members attempt to resolve their conflicts and talk over their progress (Murphy, 1998).

#### 3.4.2.5. Controlling Quality

Reviewing performance, preferring facts to theory or conjecture, providing detailed information over general statements or simplified highlights, and basing decisions on careful analysis of what has happened in the past are typical characteristics of people who prefer to control quality. They will often develop a detailed understanding of the way a team works, and evaluate the progress a team is making and analyse results. They tend to identify a team's errors, often through their careful monitoring of activities, thereby aiding a team's problem-solving efforts. These team members are also likely to examine the fine print for inconsistencies and flaws, and their questioning may sound negative but, if their questions are addressed, the outcome is often very positive (Murphy, 1998).

Other specific activities in this team role include monitoring the team's progress, auditing the team's methods, and evaluating the results of the team such as highlighting whether choices were right and efforts truly successful (Murphy, 1998).

Although TeamBuilder offers various useful components, including role preferences communicated, preference for teamwork, secondary role preference, and role preference under

pressure, this study will confine itself to the analysis of the five team roles, and individual preferences for these team roles (Murphy, 1998).

A comparative study was conducted between TeamBuilder and Belbin's model of team roles by the University of Wales, Cardiff Business School. This study concluded that TeamBuilder represents a significant advance on Belbin's model of team roles in terms of its theoretical ability and validity to organisations in the United Kingdom (Murphy, 1995). This is because the TeamBuilder model views leadership as functional so that a team member can lead from any team role; whereas Belbin's model regards leadership as more fixed. This recognition by TeamBuilder that leadership is more than just a role, and that team effectiveness is often hampered by leadership from a fixed role, is a key difference between these two approaches. This is also consistent with structural changes in organisations, a move from multilevel hierarchy of command and control, to close relationships in compressed structures. The study conducted by Cardiff Business School further concluded that TeamBuilder is more flexible and focused than Belbin, and represents a significant advance on the Belbin SPT test. Moreover, TeamBuilder is academically sound, and its reviews include reliability, validity, freedom from bias and standardisation (Murphy, 1995).

### **3.5. RELEVANCE OF TEAM ROLES TO ORGANISATIONS**

The growing realisation of a team's contribution to organisational success makes it imperative to structure and manage teams correctly. Stott and Walker (1995) argues that common wisdom dictates that if the best people are put together, it would inevitably result in a high performance team. This approach is still prevalent in most organisations, although this approach does not guarantee success. As Belbin's (1982) studies show, effective teams are those in which each team role is given equal status and attention. Individuals with their particular behavioural preferences take on particular roles within a team, and the pattern of role balance within the team has a crucial effect on the team's effectiveness. A poor balance would produce a poor outcome, and teams with competent members would not necessarily produce favourable results, since the balance might be wrong. Hence, successful teams are those whose membership is broad enough so that all the necessary roles are filled. The concept

and roles outlined in the TeamBuilder model is therefore of critical importance to the evolving significance of a team's contribution to organisational success.

The TeamBuilder model also has similarities with the activities in the project life cycle, thereby making the TeamBuilder model a powerful tool in developing high performance project teams (Murphy, 1995). As a project progresses, its emphasis shifts through various stages, such as feasibility, strategy, start-up, implementation, and review, with each phase having associated activities. Table 3.3 illustrates the compatibility of the team roles within the TeamBuilder model to a project management process.

**Table 3.3 TEAMBUILDER COMPATIBILITY WITH PROJECT MANAGEMENT PHASES**

<b>Project Phase</b>	<b>Project Activities</b>	<b>Comparable TeamBuilder Role and Activities</b>
<b>Feasibility</b>	<ul style="list-style-type: none"> <li>• Objective / Goal Setting</li> <li>• Innovation</li> <li>• Problem Solving</li> <li>• Decision Making</li> </ul>	<b>Driving Onward</b> <ul style="list-style-type: none"> <li>• Developing Concepts</li> <li>• Directing Action</li> <li>• Innovating Ideas</li> </ul>
<b>Strategy</b>	<ul style="list-style-type: none"> <li>• Project Planning</li> <li>• Scheduling</li> <li>• Budget and Time-Scales</li> <li>• Cost-Benefit Analysis</li> </ul>	<b>Planning Ahead</b> <ul style="list-style-type: none"> <li>• Strategic Planning</li> <li>• Estimating Feasibility</li> <li>• Scheduling Tasks</li> </ul>
<b>Start-Up</b>	<ul style="list-style-type: none"> <li>• Recruitment</li> <li>• Resource Management</li> <li>• User Relationships</li> <li>• Customer-Supplier Relationships</li> <li>• Interdepartmental Relationships</li> </ul>	<b>Enabling Action</b> <ul style="list-style-type: none"> <li>• Resourcing the Team</li> <li>• Promoting the Team</li> <li>• Negotiating for Support</li> </ul>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>• Job Specification</li> <li>• Work Allocation</li> <li>• Resource Levelling</li> <li>• Administration and Standards</li> </ul>	<b>Delivering Plans</b> <ul style="list-style-type: none"> <li>• Producing the Output</li> <li>• Co-ordinating Team Effort</li> <li>• Maintaining Team Morale</li> </ul>
<b>Review</b>	<ul style="list-style-type: none"> <li>• Change Requests</li> <li>• Quality Assurance</li> <li>• Financial Control and Progress Reporting</li> <li>• Testing</li> <li>• Post-Implementation Review</li> </ul>	<b>Controlling Quality</b> <ul style="list-style-type: none"> <li>• Monitoring Progress</li> <li>• Auditing Methods</li> <li>• Evaluating Results</li> </ul>

This close fit between TeamBuilder roles and the project life cycles makes TeamBuilder a uniquely adequate process and application for project management (Murphy, 1995).

Although the TeamBuilder model of team roles is acknowledged as a significant advance on the Belbin model of team roles, its central application remains the sequential management model for enhancing team performance. There is no evidence in the surveyed literature, which indicates that the TeamBuilder model is grounded in research on team roles, other than that of management models for enhancing team performance. Furthermore, the research conducted by Belbin and Millburn can be categorised as epistemological: its development has not originated from academic research to understand teams and team roles, but has emerged from an identified organisational need to enhance team performance in organisations.

### 3.6. PREVIOUS CORRELATIONAL RESEARCH

Despite the growing importance of teams in organisations (Chance, 1989), very little documented evidence exists of extensive correlation research done on team roles and other variables. Botha (1995) investigated the relationship between the Myers-Briggs Personality Type Indicator (MBTI) and Belbin's Team Roles. This study found that the team roles least frequently encountered were the *Plant*, *Shaper*, *Co-ordinator*, and *Resource Investigator*. In respect of the MBTI, the preferences least sufficiently represented were *Intuition*, *Feeling*, and *Perception*.

### 3.7. CHAPTER SUMMARY

This chapter began by defining team roles and providing a theoretical background to team role theory. Thereafter, it explored the nature of team roles and Belbin's (1982) model of team roles. A critique of Belbin (1982) was presented before expanding on extensions of Belbin's (1982) model by centring on the TeamBuilder model of team roles. Finally, the relevance of team roles in organisations was explained, prior to outlining previous correlational research.

## **THEORETICAL RELATIONSHIP BETWEEN PERSONALITY TYPES AND TEAM ROLES**

### **Integration**

#### **Jung's Personality Type Theory and its implications for team roles.**

Jung (1959, 1971) defined personality types as patterns in the way people prefer to perceive and make judgements. Individuals choose either perception or judgement as a dominant mode to guide their lives and the other mode as an auxiliary or helping process. By combining an individual's dominant attitude and function, his or her basic personality type may be determined. The various personality type preferences differ in their interests, values, and needs. They learn in different ways, cherish different ambitions and respond to different rewards. Tables 2.1, 2.2, and 2.3 illustrate these differences.

The use of personality types can also be applied to team and organisational diagnoses. Personality types can be used as lenses to diagnose a team with respect to Team Type, Functions, Quadrants, Temperaments, and Dynamics, with each lens focusing on different combinations of personality characteristics to explain and diagnose issues that the team has to resolve. The Team Type for example focuses on the "best fit" of personality type characteristics for the team as a whole and can be used to analyse and identify team strengths and weaknesses. The Functions lens is especially useful with teams that are dealing with communication issues. The Quadrants lens is useful when a team is facing change or dealing with cultural issues, whereas the Temperaments lens is useful with teams that are facing leadership issues (Hirsh, 1993). Personality types can also be used to diagnose an organisation's character according to different behavioural descriptions from each of the sixteen types (Bridges, 1993).

According to Belbin (1993), people's preferred team roles are seldom evident at all from their features or general appearance, but rather in exhibiting certain regularities in their behaviour. They talk a lot or a little, they intervene when particular openings present themselves, and their contributions inevitably assume one form of behavioural characteristic or another. Hurst *et. al.* (1989) suggests that although individuals may be able to exhibit a variety of behaviours,

they will have a preference for exhibiting certain behaviours in a team, and these are essentially a function of their personality make-up (Stott & Walker, 1995). It can therefore be postulated that individuals preferred team roles will exhibit personality type behaviours and consequently personality types preferences.

### **Hypothetical relationship between personality types and team roles.**

This section explores probable linkages between the behaviours exhibited in each of Jung's personality types, as illustrated by Hirsh (1993) and Myers (1993), and the behaviours exhibited in each of the team roles, as illustrated by Murphy (1998).

The descriptions of behaviours for each of Jung's personality types in different work situations (as illustrated in Table 2.2) provide a basis for comparison with those described by the five team roles in the TeamBuilder model.

- **Extraversion (E)**

The Extraversion personality type and the Enabling Action team role have comparable descriptions. People who prefer this team role are generally outgoing and friendly and will use their capabilities to persuade a team of the merits of new ideas (Murphy, 1998). This resembles the description of the Extravert personality type (Hirsh, 1993). Thus, people who are Extravert are more likely to display a preference for the Enabling Action team role.

- **Introversion (I)**

There is no descriptive team role behaviour in the literature that is similar to the Introversion personality type.

- **Sensing (S)**

People who fall into the Sensing (S) category take in information through their senses to find out what is actually happening, are observant of what is going on around them and are

especially good at recognising the practical realities of a situation (Hirsh, 1993). This description has a corresponding similarity with the behaviours exhibited in the Controlling Quality team role. Reviewing performance, preferring facts to theory, providing detailed information over general statements, and basing decisions on careful analysis of what has happened in the past are typical characteristics of people who prefer the Controlling Quality team role (Murphy, 1998). Thus it can be postulated that people who fall into the Sensing personality type are more likely to display a preference for the Controlling Quality team role. Murphy (1998) also describes people who prefer the Delivering Plans team role to base their decisions on observation and common sense, thereby relying primarily on the sensing function, further suggesting that the Sensing personality type may also display a preference for the Delivering Plans team role.

- **Intuition (N)**

People demonstrating a preference for the Driving Onward team role exhibit preferences for seeing “big picture” opportunities, instinctively reaching conclusions rather than making a detailed analysis of a situation, and often making decisions intuitively. In addition, this team role exhibits preferences for developing concepts, directing action and providing the team with innovative ideas (Murphy, 1998). This description corresponds with Jung’s description of people who prefer Intuition, and is described as seeing the big picture, new possibilities and different ways of doing things (Hirsh, 1993). The corresponding similarity between the behavioural descriptions of Intuition and Driving Onward allows for a tentative postulation that people who fall into the Intuition personality type are more likely to display a preference for the Driving Onward team role.

- **Thinking (T)**

The behavioural descriptions of the Thinking personality type resemble the activities of developing concepts and innovating ideas in the Driving Onward team role (Murphy, 1998) also resemble. Thinking is the function that links ideas together by making logical connections, and describes people associated with analytical ability and objectivity (Hirsh, 1993). This

similarity also allows for another postulation that people who fall into the Thinking personality type are also likely to display a preference for the Driving Onward team role.

Another theoretical correlation exists between the Thinking personality type and the Planning Ahead team role. People who are primarily oriented toward the Thinking personality type may develop characteristics associated with analytical ability, objectivity, and an orientation to time that is concerned with connections from the past through the present to the future (Hirsh, 1993). People who fall into the Planning Ahead team role use clear and logical thinking to set specific and measurable targets, and can involve early problem solving and decision making often as a result of an in-depth analysis (Murphy, 1998). This *Deciding* indicator (Hirsh, 1993) strongly suggests that people falling into the Thinking personality type are more likely to display a preference for the Planning Ahead team role.

- **Feeling (F)**

The Feeling personality type has similarities with the Enabling Action team role. People in this personality type work best in harmony with others, and please people even in unimportant things. They often feel rewarded when other people's needs are met, and tend to be empathic and compassionate towards others in a team (Hirsh, 1993). People who prefer to fulfil the Enabling Action team role generally rely on a combination of available facts and their personal values to influence their decisions (Murphy, 1998). Thus it is postulated that people in the Feeling personality types, too, may display a preference for the Enabling Action team role.

- **Judging (J)**

The Judging personality type has similarities to the Planning Ahead team role. People who prefer to use their Judging process in the outer world tend to live in a planned orderly manner, wanting to regulate and control life. Their life style is structured and organised, and they like to have things settled, planned and scheduled. (Myers, 1993). People who fall into the Planning team role also have preferences for activities such as scheduling tasks and planning the acquisition and use of resources (Murphy, 1998). This *Living* indicator (Hirsh, 1993)



therefore also suggests that people falling into the Judging personality type are more likely to display a preference for the Planning Ahead team role.

- **Perceiving (P)**

There is no descriptive team role behaviour in the literature that is similar to the Perceiving personality type.

Table 3.4 summarises the possible theoretical relationship between personality types and team roles.

**Table 3.4. HYPOTHETICAL RELATIONSHIP BETWEEN PERSONALITY TYPES AND TEAM ROLES**

<b>Personality Type</b>	<b>Team Roles</b>
Extraversion (E)	Enabling Action
Introversion (I)	
Sensing (S)	Controlling Quality; Delivering Plans
Intuition (N)	Driving Onward
Thinking (T)	Planning Ahead; Driving Onward
Feeling (F)	Enabling Action
Judging (J)	Planning Ahead
Perceiving (P)	

This probable relationship between personality types and team roles provide an interpretative theoretical framework that may be of and practical value. If such a relationship exists, it may be postulated that personality types can act as predictors of specific team roles. Furthermore, examining the relationship between personality types described by Jung (1971) and team roles described by Murphy (1998), could provide intriguing insights into the effects of personality types, as well as the inherent behavioural characteristics of each team role from within the behavioural characteristics of personality types.

The section aimed to postulate on a theoretical relationship between personality types and team roles. Hereafter, the relationship between personality types and team roles will be tested empirically.

## **CHAPTER 4:        EMPIRICAL STUDY**

The empirical investigation has the specific aim of ascertaining the relationship between personality types and team roles. Although the research is predominantly investigative in nature, a research hypothesis describing the relationship between personality types and team roles will be formulated. The research hypothesis will be tested by means of descriptive research. This phase consists of eight steps, namely:

- Step 1        Determination and description of the sample
- Step 2        The psychometric battery
- Step 3        Administration of the psychometric battery
- Step 4        Formulation of the research hypothesis
- Step 5        Statistical analysis of data and interpretation
- Step 6        Integration of research findings
- Step 7        Limitations and conclusions of the research
- Step 8        Recommendations for selection of team members and teambuilding

Steps 1 to 4 are addressed in this chapter, steps 5 and 6 in Chapter 5, and steps 7 and 8 in Chapter 6.

### **4.1.            DETERMINATION AND DESCRIPTION OF THE SAMPLE**

For sampling to be implemented effectively, initial decisions have to be made with respect to the population and sample size (Howell, 1989). First, it was decided to expand the population to professional and managerial levels of staff across randomly chosen organisations within the Western Cape Province. Second, given the expensive costs of the measurement instruments, as well as the researcher's time constraints, it was decided to draw random samples of approximately 80 professionals and managers who had participated in teams as part of their working history or job requirements. A final consideration was the anticipated response rate, which is often substantially lower than the sample.

Fifty questionnaires (of each instrument) were returned to be included in the analysis, representing an overall response rate of 50. Table 4.1 provides an overview of participants' biographical variables. The mean age of the respondents is 36.3 years as 36% of the respondents of the sample fall within the 30-39 year age category and 30% fall within the 20-29 year age category. Sixty percent (60%) of the respondents are female and 40% are male. Twenty six percent (26%) of the respondents have between 30-39 years service, 24% between 1-5 year's service, 12% less than a year and between 5-10 years service, and only 6% having more than 15 years service.

**Table 4.1. FREQUENCY TABLE OF THE SAMPLE GROUP AS PER FEW BIOGRAPHICAL VARIABLES**

		n	%
Gender	Male	30	60
	Female	20	40
Age	20-29 years	15	30
	30-39 years	18	36
	40-49 years	10	20
	50 years +	7	14
Length of service with the Organisation	Less than one year	6	12
	1-5 years	22	44
	5-10 years	13	26
	10-15 years	6	12
	More than 15 years	3	6

Table 4.2 provides an overview of the sample size per occupational group. 34% of the respondents' are within technically orientated professions, and 24% of the respondents are managers within technically orientated professions. A total of 66% of respondents' fall within non-technical professions and 38% of respondents are managers within non-technical professions. These characteristics of the sample group should be considered when interpreting and generalising the results of this study.

**Table 4.2. SAMPLE SIZES PER OCCUPATIONAL GROUP**

	n	%
Technical Professional	5	10
Non-technical Professional	14	28
Manager (Technical)	12	24
Manager (Non-Technical)	19	38

Technical professional refers to those professions that are technical in nature, such as mechanical engineering, chemical engineering, industrial engineering, etc. Non-technical professional refer to those professions that are more administrative and financially orientated. Manager (Technical) and Manager (Non-Technical) refer to positions in which respondents manage either technical or non-technical professions, respectively.

#### **4.2. THE PSYCHOMETRIC BATTERY**

The decision given to the selection of the psychometric battery was guided by the literature review. This is exploratory research (Mouton & Marais, 1992) in which the relevant models and theories of personality types and team roles were presented in an integrated manner. The Psychometric instruments were considered regarding their applicability to the relevant models and theories of the research. Particular emphasis was placed on the validity and reliability of the various instruments. The following measuring instruments were therefore used for this research project:

- A biographical questionnaire was included as covering letter (Appendix 1) with the MBTI to ascertain personal information for the statistical analysis of the data. The type of information ascertained: name, surname, organisation, occupation, age, gender, and length of service with the organisation. These data are presented in Tables 4.1 and 4.2.
- The Myers-Briggs Type Indicator (MBTI), Form G, developed by Briggs and Myers (1977) to measure personality types.

- The TeamBuilder Questionnaire developed by Peter Milburn (1998) to measure team roles.

The properties of the Myers-Briggs Indicator and the TeamBuilder questionnaire will be described in turn.

#### 4.2.1. The Myers-Briggs Type Indicator

The MBTI (Briggs & McCaulley, 1985) will be discussed with reference to the development, description, scales, administration, interpretation, validity and reliability of the instrument.

##### 4.2.1.1. Development of the Myers-Briggs Type Indicator

The MBTI is based on Jung's (1960) ideas about perception and judgement, and the extent to which these are used in different types of people Myers and Briggs developed the MBTI during and after World War II (Myers & McCaulley, 1992). According to Van Rooyen (1999), the two women started developing an Indicator that would enable people to gain access to the Jungian preference type. They felt that if people could be placed in jobs, that they would find satisfying, it would contribute to increased productivity. Over the years Myers worked with samples of 15000 nurses and 5000 doctors. From 1942-1944 a large number of potential MBTI items were written and validated on a first criterion group.

##### 4.2.1.2. Description of the Myers-Briggs Type Indicator

The aim of the MBTI is to identify, from a self-report of easily recognised reactions, the basic preferences of people with regard to perception and judgement, so that the effects of each preference, singly and in combination, can be established by research and put into practical use (Myers & McCaulley, 1992). The MBTI is published in three forms – Form F (166 items), Form G (126 items) and Form AV, the Abbreviated Version that is self-scoring (50 items). Both Form F and Form G contain research items as well as the items scored for type; Form AV contains no research items. The Form F and Form G items scored for type are almost identical, but in Form G items are rearranged so that those that are best predictors of total

type are at the beginning. This increases the likelihood that respondents who do not finish the MBTI will receive accurate reports of their type. The MBTI, Form G, is a self-reporting paper and pencil instrument and consists of three parts. Part I consist of 26 items, part II, 45 items and part III, 55 items. In total, the participant must answer 126 items.

According to Myers and McCaulley (1985; 1992), all items are forced choice items, which measure individuals' preferences in regard to the basic functions of perception and judgement and describe easily recognisable behaviours or reactions in various life settings. Choices are between seemingly inconsequential everyday events, chosen by Myers as stimuli to evoke the more comprehensive type preferences. In part I and III, individuals are forced to choose between types of behaviours or reactions and in part II, the items restrict individuals to choosing between word pairs. In choosing a preferred word or behaviour, individuals indicate their preferences with regard to the four scales or indices: Extraversion/Introversion (EI); Sensing/Intuition (SN); Thinking/Feeling (TF); and Judgement/Perceiving (JP).

#### 4.2.1.3. Scales of the Myers-Briggs Type Indicator

The MBTI contains four separate indices, each reflecting one of four basic preferences, which according to Jung's theory, directs the use of perception and judgement. The preferences affect not only what people attend to in any given situation, but also how they draw conclusions about what they perceive. The indices EI, SN, TF, and JP are designed to point in one direction or the other; they are not designed as scales for measurement of traits or behaviours. The intent is to reflect a habitual choice between rival alternatives, analogous to right-handedness or left-handedness. Every person is assumed to use both poles of each of the four preferences, but to respond first or most often with preferred functions or attitudes. The MBTI items scored for each index offer forced choices between the poles of the preference at issue. All choices reflect the two poles of the same Jungian preference (e.g., E or I, S or N, never E or N, N or F). Myers & McCaulley (1985; 1992) outline the following individual preferences.

- Extraversion-Introversion (EI): The EI index is designed to reflect whether a person is an extravert or an introvert. Extraverts (E) are oriented toward the outer world; thus they

tend to focus their perception and judgement on people and objects. Introverts (I) are oriented primarily toward the inner world; thus they tend to focus their perception and judgement upon concepts and ideas.

- Sensing-Intuition (SN): The SN index is designed to reflect a person's preference between two opposite ways of perceiving. One may rely primarily upon the process of Sensing (S), which reports observable facts or happenings through one or more of the five senses; or one may rely more upon the less obvious process of Intuition (N), which reports meanings, relationships and/or possibilities that have been worked out beyond the reach of the conscious mind.
- Thinking-Feeling (TF): The TF index is designed to reflect a person's preference between two contrasting ways of judgement. A person may rely primarily on Thinking (T) to decide impersonally on the basis of logical consequences, or a person may rely primarily on Feeling (F) to decide primarily on the basis of personal social values.
- Judgement-Perception (JP): The JP index is designed to describe the process a person uses primarily in dealing with the outer world, that is, with the extraverted part of life. A person who prefers Judgement (J) has reported a preference for using a judgement process (either Thinking or Feeling) for dealing with the outer world. A person who prefers Perception (P) has reported a preference for using a perceptive process (either Sensing or Intuition) for dealing with the outer world.

The preference on each index is independent of preferences for the other three indices, so that the four indices yield sixteen possible combinations called "types", denoted by the four letters of the preferences (e.g., ESTJ, INFP). For the present purposes, measurement will be expanded to include scores on each function and attitude. Hence, participants' scores on Extraversion, Introversion, Sensing, Intuition, Thinking, Feeling, Judgement, and Perceiving will be applicable to assessing any predictive value between personality types and role preference in teams.

#### 4.2.1.4. Administering the Myers-Briggs Type Indicator

The MBTI Form G is self-administering. All necessary instructions are given on the cover of the question booklets and on the response sheets. The same response sheet is used for hand scoring. The MBTI has no time limit, but those who are making unusually slow progress may be encouraged to work rapidly and not study the items at length. The examiner should not explain questions or meanings, or words to participants who ask about questions. In group testing, group members should not be allowed to discuss the items. Omissions are permitted if respondents do not understand a question or cannot choose an answer. The reason for permitting omissions is that no item can reliably contribute useful evidence of type unless choices are understood and the question lies within the respondent's experience (Myers & McCaulley, 1985).

#### 4.2.1.5. Scoring and Interpretation of the Myers-Briggs Type Indicator

Five scoring stencils are provided for scoring the MBTI Form G: (1) E and I, (2) S and N, (3) T and F male, (4) T and F female, and (5) J and P. Scoring instructions are printed on the stencils. Each of the responses for a question may be weighted 0, 1, or 2 points. Responses that best predict total type with a prediction ratio of 72% or greater carry a weight of 2; items that predict type with a prediction ratio of 63% to 71% carry a weight of 1; over popular responses carry a weight of 0. The totals for weighted scores for each preference are called points. Persons with higher total points for E than for I are classified as extraverts. The difference between points for E and points for I is computed to produce an E preference score, such as E 13 or E 27. Those with more points for I than for E are classified as Introverts and are said to have I preference scores (Myers & McCaulley, 1985).

The letters indicate which of each pair of alternatives the person prefers and presumably has, or can develop, to a greater degree. For example, a preference score letter E suggests that a person prefers Extraversion to Introversion and probably has spent more time extroverting than introverting. Consequently, the person is likely to be better at activities that call for extraversion than activities that call for introversion and will find more satisfaction from activities that require extraversion. The characteristics associated with a preference are often



less apparent when the numerical portion of the preference score is low. A low score shows almost equal votes for each pole of the preference (Myers & McCaulley, 1985).

#### 4.2.1.6. Validity and Reliability of the Myers-Briggs Type Indicator

Myers and McCaulley (1985; 1992) provide extensive validity data. The Myers-Briggs Type Indicator Manual (Myers & McCaulley, 1992) reports 30 pages of correlations between continuous scores of the MBTI and scales of other instruments. Type distributions presented throughout the Myers-Briggs Type Indicator Manual provide evidence for the construct validity of the MBTI. The MBTI Manual (Myers & McCaulley, 1992) provides extensive data illustrating split-half correlations and alpha coefficients to estimate internal consistency and test-retest correlations to estimate stability over time.

#### 4.2.2. The TeamBuilder Questionnaire

The TeamBuilder questionnaire will be discussed with reference to the development, description, scales, administration, interpretation, validity, and reliability of the instrument.

##### 4.2.2.1. Development of the TeamBuilder Questionnaire

The TeamBuilder questionnaire is founded on Millburn's (1980) model of a team development and achievement process, which also identifies five team roles for achieving team objectives. The model is also based on the assumption that an individual develops a primary preference for a certain role within the model. Consequently, an individual's contribution to a team is primarily determined by their preferences for a particular role.

##### 4.2.2.2. Description of the TeamBuilder Questionnaire

The aim of the TeamBuilder questionnaire is to identify from a self-report of easily recognised reactions, the basic preferences of people in regard to the role they play in teams. TeamBuilder is a full six-part computer-based questionnaire in the form of a stiffy-disk, divided into three

sections each consisting of 9 main question items with five alternative 'answer' choice (Murphy, 1998). These sections are:

- Questions related to an individual's orientation and experience of teamwork, followed by questions relating to their preferred role in a team
- Questions relating to an individual's awareness of the tasks associated with the preferred team role, followed by the questions relating to what role preference an individual communicates to the rest of the team
- Questions relating to an individual's preferred role and what they communicate to the rest of the team in situations of high work pressure

All items in the computer-based questionnaire are forced choice and measure individuals' choices in regard to their preferred roles within a team and describe easily recognisable behaviours or reactions in various team settings. Choices for each item are also seemingly inconsequential everyday events, chosen by the designers of the questionnaire as stimuli to evoke comprehensive role preferences. In choosing a preferred behaviour to a question, individuals indicate their preferences with regard to the five team roles in the TeamBuilder model, namely: Driving Onward (DO), Planning Ahead (PA), Enabling Action (EA), Delivering Plans (DP), and Controlling Quality (CQ).

#### 4.2.2.3. Scales of the TeamBuilder Questionnaire

As with the Myers-Briggs, the five roles are not designed as scales for measurement of traits or behaviours, but are intended to reflect a habitual choice between the rival alternative team roles. Hence, every person is assumed to use all five roles, but responds to most often to the preferred team role. Murphy (1998) outlines the following individual preferences for team roles:

- Driving Onward (DO): This index is designed to reflect people who are forward looking, high task focused, visionary, and intuitive, and who prefer to engage in activities such as developing concepts, direction action, and generating innovative ideas.
- Planning Ahead (PA): The PA index is designed to reflect people who are forward looking, task focused and structured, and who prefer to engage in activities such as strategic planning, estimating feasibility for a project, and scheduling tasks for a project.
- Enabling Action (EA): The EA index is designed to reflect people who have a blend of structure and perception, focused on the present, and although task-centred, they consider the well being of people as the key to the completion of the tasks. People in this role preference also enjoy providing the team with resources, publicly promote the team, and negotiates for support for the team and its activities.
- Delivering Plans (DP): The DP index is designed to reflect people who are methodical and focused on the present, and enjoy working with and through people in the implementation of tasks. People in this role preference enjoy activities such as producing the output, as well as co-ordinating and maintaining teamwork.
- Controlling Quality (CQ): The CQ index is designed to reflect people who are structured, precise, task-driven, and are focused on the teams past procedures and performance in the past. This role preference enjoys activities such as monitoring the progress of the team, evaluating the results and outputs of the team, and auditing their procedures and methods in the execution of the tasks.

The preference on each index is independent of other indices. In the current study, measurement of role preference in teams will include the overall scores on all indices.

#### 4.2.2.4. Administration of the TeamBuilder Questionnaire

The TeamBuilder questionnaire is virtually self-administering with all the necessary instructions on the disk cover for loading the questionnaire in either Windows 3.1 or Windows

95. Once installed, all other procedures relating to the completion of the questionnaire are windows-driven, thereby enabling participants to complete the questionnaire on computer. The TeamBuilder questionnaire has no time limit, and participants can take a break from the questionnaire at the end of each section and resume later, but the full questionnaire has to be completed prior to any results or feedback being available. Because the questionnaire is self-administering, there is no need for an examiner, and questionnaires are completed in an individual's own time without the need to complete the questionnaire in a group. Participants are not allowed to omit any items, and the computer-driven questionnaire will not proceed to the next item or question until the present question has been answered (Murphy, 1998).

#### 4.2.2.5. Scoring and interpretation of the TeamBuilder Questionnaire

The TeamBuilder questionnaire is computed automatically and all answers are secured in files once each question of the questionnaire is completed. People will express sustainable preferences (scores between 30 and 45) for one or more of the role preferences. The assumption is made that a member's effective contribution to a team will depend on the fulfilment of their preferred role in a team. The sum of all scores on all the role preferences must tabulate to 135 points in total. Previous research has shown that 20% of participants have a sustainable preference for one role only, 60% have sustainable preferences for two roles, 15% have sustainable preferences for three roles, and 5% have no sustainable preferences for any role (that is, with scores below 30 for any team role) (Murphy, 1998).

Those with a sustainable preference for only one role are easily identifiable by others, but runs risk of being inflexible to other team roles. Those with sustainable preferences for two roles are more flexible and easily switch between roles, particularly when a team lacks members who have a preference for a particular role. The highest sustainable preference score is considered the primary role preference, and the second highest sustainable preference score is considered as the secondary role preference. Sustainable preferences for three roles are very flexible, and although valuable in a team, their preference would not be readily identifiable by others. A participant with no sustainable preference for any role may be comfortable working to a mini process and/or prefers variety in the type of tasks they undertake. Apart from providing scores on sustainable role preferences, TeamBuilder also provides tailored

developmental advice on possible weaknesses the participant has to be aware of or overcome in working with teams (Murphey, 1998).

#### 4.2.2.6. Validity and Reliability of the TeamBuilder Questionnaire

The TeamBuilder instrument was developed in the late 1970's and used extensively by the originator, Millburn in the United Kingdom, and although developed over a number of years, reached maturity and was extensively validated in the early 1980's (Murphey, 1998). The questionnaires were originally founded on his personal psychological research and based on the findings of Houland, Janis, Sherif, and Litterer, amongst others. The programme was mainly used in Europe and involved English speaking French, German Dutch and Danish project team members – male and female.

Millburn validated the TeamBuilder questionnaire extensively within many types of teams and showed that teams working together with a common goal and contributing within their specific team role preference achieved a 30% reduction in non-productive time compared to the control teams not using the TeamBuilder model to structure their contributions. The visibility, respect and attractiveness of Millburns teams and each of the people within them were significantly ahead of others. Productivity was measured in terms of budget control, adherence to target timings and achievement of desired or specified quality (Murphy, 1995).

TeamBuilder in its current form (delivered on disk and revised to include team experience and role comfort) was tested and revalidated via a total of 310 people (45% female) and included ethnic and cultural minorities. The group also represented educationalists, public and private sector business personnel, members of professions, non-salaried workers (housewives involved in voluntary work), and students. No bias was found and 308 (99,4%) people accepted their results either immediately or on reflection (Murphy, 1995).

TeamBuilder has also been through a reliability study. Thirty people completed the questionnaire six weeks after their first exposure and no results showed any significant deviation from the original. The 30 people involved in this reliability exercise had no exposure to the programme in the intervening period. The programme has been reviewed by Dr. John

Rust of the British Psychological Society, approved by a number of HR consultant members of the Society, and favoured by a University of Wales MBA student project group and is approved by three Universities for use as part of their MSc or MBA programmes. A further study has shown a significant correlation of results between TeamBuilder and a proven psychometric personality test – itself approved by the British Psychological Society (Murphy, 1995).

#### **4.3. ADMINISTRATION OF THE PSYCHOMETRIC BATTERY**

Initially, each participant in the sample was approached as to whether he / she was willing to participate in the research. On acceptance of participation, each participant was sent a biographical questionnaire, a paper and pencil Myers Briggs questionnaire (Form G), and a computer disk questionnaire (TeamBuilder Questionnaire) with a covering letter indicating the background and purpose of the research, as well as instructions for the the disk questionnaire and the paper questionnaires.

#### **4.4. SCORING OF THE PSYCHOMETRIC BATTERY**

The MBTI was scored manually using the scoring stencils, and the TeamBuilder questionnaire was computed and scored automatically to obtain raw scores for each personality type index and team role. This enabled the variables to be treated on a nominal scale. Participants' biographical details were transformed into categorical data to be measured on a nominal scale.

#### **4.5. STATISTICAL PROCESSING OF DATA**

The Statistica computer software programme (Statistica, Inc, 1998) was used to conduct a correlation analysis and a multiple regression analysis using the stepwise method (Statistica, Inc, 1998). A correlation analysis is an analysis of the strength of a relationship between two variables (Howell, 1989) was used to measure the strength of the relationship between personality types and team roles. A regression analysis is used to predict one variable from the knowledge of one or more variables (Howell, 1989), and a multiple regression analysis relates the dependant variable several predictor variables (Howell, 1989). A multiple regression

analysis is required to determine the interaction effects between personality types in predicting team roles.

#### **4.6. FORMULATION OF THE RESEARCH HYPOTHESIS**

Although this research is essentially explorative in nature, a research hypothesis will be formulated regarding the relationship between personality types and team roles. The following research hypothesis was tested.

H<sub>0</sub>: There is no relationship between personality types and team roles.

H<sub>1</sub>: There is a relationship between personality types and team roles.

This research hypothesis will be tested by statistically analysing the relationships between biographical data, and scores on personality and team role indices.

#### **4.7. CHAPTER SUMMARY**

This chapter discussed the steps 1 - 4 of the empirical investigation. These included the determination and description of the sample, choosing the psychometric battery, administration of the psychometric battery, scoring of the psychometric battery, statistical processing of data and the formulation of the research hypothesis. Chapter 5 discusses steps 5 to 6 of the empirical investigation.

## **CHAPTER 5: RESULTS OF THE EMPIRICAL STUDY**

Chapter 5 contains the reporting and interpretation of the results with the specific aim to integrate the research findings.

### **5.1. REPORTING OF RESULTS**

The results of the empirical study are subsequently reported under a frequency distribution of team roles, a frequency distribution of personality types, a correlation analysis between personality types and team roles, and a regression analysis between personality types and team roles.

#### **5.1.1. Frequency distribution of team roles**

The frequency distribution of participants' most preferred team role is displayed in table 5.1.

**Table 5.1. FREQUENCY DISTRIBUTION OF PARTICIPANTS' PREFERENCE FOR TEAM ROLES**

<b>Driving Onward</b>	<b>Planning Ahead</b>	<b>Enabling Action</b>	<b>Delivering Plans</b>	<b>Controlling Quality</b>
46% (n: 23)	10% (n: 5)	10% (n: 5)	20% (n: 10)	14% (n: 7)

According to table 5.1, 46% (n=23) of participants scored Driving Onward as their most preferred team role, whereas 20% (n=10) scored Delivering Plans, 14% (n=7) Controlling Quality, and 10% (n=5) Planning Ahead and Enabling Action as their most preferred team role.

#### **5.1.2. Frequency distribution of personality types**

The frequency distributions of the Myers-Briggs 16 personality types personality types displayed in Table 5.2.



Table 5.2. **FREQUENCY DISTRIBUTION OF PERSONALITY TYPES**

		Sensing (S)		Intuitives (N)	
		Thinking (T)	Feeling (F)	Feeling (F)	Thinking (T)
		- ST -	- SF -	- NF -	- NT -
Introvert	I -- J	<b>ISTJ</b> 22% (n: 11)	<b>ISFJ</b> n: 0	<b>INFJ</b> n: 0	<b>INTJ</b> 6% (n: 3)
	I -- P	<b>ISTP</b> 2% (n: 1)	<b>ISFP</b> n: 0	<b>INFP</b> n: 0	<b>INTP</b> 12% (n: 6)
Extravert	E -- P	<b>ESTP</b> 4% (n: 2)	<b>ESFP</b> 2% (n: 1)	<b>ENFP</b> 4% (n: 2)	<b>ENTP</b> 12% (n: 6)
	E -- J	<b>ESTJ</b> 20% (n: 10)	<b>ESFJ</b> 2% (n: 1)	<b>ENFJ</b> n: 0	<b>ENTJ</b> 14% (n: 7)
Total %		48% (n: 24)	4% (n: 2)	4% (n: 2)	44% (n: 22)

The majority of the sample clusters in the ST (Sensing-Thinking) personality type category (48%), followed by a clustering in the NT (Intuition-Thinking) personality type category (44%). The SF (Sensing-Feeling) and NF (Intuition-Feeling) personality type categories were not strongly represented (4% and 4% respectively).

In terms of the individual personality types, Thinking types are dominant (92%); as well as Extraverts (68%) and Judging (64%) types. Sensing types (52%) seem to be balanced across the sample group, as well as Intuition (48%). Introverts (42%) represent a small component of the sample group.

### 5.1.3. Correlation analysis between personality types and team roles

Table 5.3 displays the correlations (r) and significant level (p) between individual personality types and team roles for the total sample. A correlation between a personality type and a team role was considered statistically significant for  $p < 0.05$ . Significant correlations between the specific personality type and team role are in bold.

**Table 5.3. CORRELATION TABLE BETWEEN PERSONALITY TYPES AND TEAM ROLES**

	<b>Driving Onward</b>	<b>Planning Ahead</b>	<b>Enabling Action</b>	<b>Delivering Plans</b>	<b>Controlling Quality</b>
<b>Extraverted</b>	$r = 0.2917$ $p = 0.040$	$r = -0.0744$ $p = 0.151$	$r = 0.2990$ $p = 0.151$	$r = -0.2990$ $p = 0.035$	$R = -0.2250$ $p = 0.116$
<b>Introverted</b>	$r = 0.2028$ $p = 0.158$	$r = 0.0748$ $p = 0.606$	$r = -0.2016$ $p = 0.160$	$r = 0.1765$ $p = 0.220$	$r = 0.2080$ $p = 0.147$
<b>Sensing</b>	$r = -0.4615$ $p = 0.001$	$r = 0.1390$ $p = 0.336$	$r = 0.0521$ $p = 0.720$	$r = 0.3834$ $p = 0.006$	$r = 0.0911$ $p = 0.529$
<b>Intuition</b>	$r = 0.5550$ $p = 0.000$	$r = -0.2563$ $p = 0.072$	$r = -0.0121$ $p = 0.052$	$r = -0.4245$ $p = 0.002$	$r = -0.1006$ $p = 0.487$
<b>Thinking</b>	$r = 0.0332$ $p = 0.819$	$r = 0.1848$ $p = 0.199$	$r = -0.2463$ $p = 0.052$	$r = -0.2503$ $p = 0.080$	$r = 0.2845$ $p = 0.045$
<b>Feeling</b>	$r = 0.1167$ $p = 0.419$	$r = -0.2323$ $p = 0.105$	$r = 0.2466$ $p = 0.084$	$r = -0.0114$ $p = 0.937$	$r = -0.1543$ $p = 0.285$
<b>Judging</b>	$r = -0.3308$ $p = 0.019$	$r = 0.3244$ $p = 0.022$	$r = -0.0822$ $p = 0.570$	$r = 0.1709$ $p = 0.235$	$r = 0.0719$ $p = 0.620$
<b>Perceiving</b>	$r = 0.3913$ $p = 0.005$	$r = -0.3451$ $p = 0.014$	$r = 0.0980$ $p = 0.498$	$r = -0.2570$ $p = 0.072$	$r = -0.0676$ $p = 0.641$

Table 5.3 reflects the following statistically significant correlation between personality types and team roles. The Extraversion personality type has a statistically significant positive correlation with the Driving Onward ( $p=0.040$ ) team role, and a statistically significant negative correlation with the Delivering Plans ( $p=0.035$ ) team role. The Introversion personality type is not significantly correlated with any team role. The Sensing personality type has a statistically significant negative correlation with the Driving Onward ( $p=0.001$ ) team role and a statistically significant positive correlation with the Delivering Plans ( $p=0.006$ ) team role. The Intuition personality type also has a statistically positive correlation with the Driving Onward team role ( $p=0.000$ ), but a statistically significant negative correlation with the Delivering Plans ( $p=0.002$ ) team role. The Thinking personality type has a statistically significant positive correlation with the Controlling Quality ( $p=0.045$ ) team role. The Feeling personality type is not significantly correlated with any team role. The Judging personality type has a statistically significant negative correlation with the Driving Onward team role ( $p=0.019$ ), and a statistically significant positive correlation with the Planning Ahead ( $p=0.022$ ) team roles, whereas the Perceiving personality type has a statistically significant positive correlation with Driving Onward and a statistically significant negative correlation with the Planning Ahead team role ( $p=0.014$ ).

As evident from table 5.3, there is a statistically significant correlation between the Extraverted, Sensing, Intuition, Judging and Perceiving personality types and the Driving

Onward team role. Because many of the predictor variables are confounded (i.e. not independent), a multiple regression analysis can be used to identify the most significant variable.

Van Rooyen (1999) explains that when a person answers the MBTI, votes are cast for Extraversion (E) or Introversion (I), Sensing (S) or Intuition (N), Thinking (T) or Feeling (F) and Judgement (J) or Perception (P). It can therefore be assumed that the Introversion personality type is a natural opposite of the Extraversion personality type, the Sensing a natural opposite of Intuition, and Judging, a natural opposite of the Perceiving personality type. A significant relationship between a specific individual personality type and the Driving Onward team role could therefore yield a significant inverse relationship between the natural opposite of that specific personality type and the Driving Onward team role. The Extraversion, Sensing, and Judging personality types are therefore only needed for the multiple regression analysis.

#### 5.1.4. Multiple regression analysis between personality types and team roles

A multiple regression analysis was performed on the Extraversion (E), Sensing (S), and Judging (J) personality types and the Driving Onward team role to determine and eliminate the interaction effects of the personality types in explaining the relationship between these personality types and the Driving Onward team role. Table 5.4 outlines the regression analysis summary of the Extraversion, Sensing and the Judging personality types for the Driving Onward team role.

A “B” represents the regression statistic and “p” represents the statistical significance of the regression for “ $p < 0.1$ ”. That is, the regression between a personality type and a team role is statistically significant if its “p” value is less than 0.1. The ***bolded italic*** cells represent a significant regression between the specific personality type and the Driving Onward team role.

**Table 5.4. MULTIPLE REGRESSION SUMMARY**

	<b>Driving Onward</b>	<b>Significant / Insignificant</b>
<b>Extraversion</b>	B = 0.20242 <i>P = 0.087849</i>	Marginally Significant
<b>Sensing</b>	B = - 0.34892 <i>P = 0.001638</i>	Strongly Significant

Statistica (Statistics, Inc, 1998) did not reflect any score for the Judging personality type in the multiple regression analysis. It can therefore be assumed that the Judging personality type has no statistically significant correlation with the Driving Onward team role. As evidenced from table 5.4, there is a marginally statistically significant correlation between the Extraversion personality type and the Driving Onward team role ( $p=0.087849$ ) in a multiple regression analysis. However, there is a strong statistically significant negative correlation between the Sensing personality type and the Driving Onward team role ( $p=0.001638$ ), with a speculative statistically significant inverse correlation between Intuition, a natural opposite of Sensing, and the Driving Onward team role. The Judging personality type did not feature as a significant correlation in the multiple regression analysis, and because Perceiving is considered a natural opposite of Judging, it is speculated that Perceiving would not have statistically significant correlation with Driving Onward in a multiple regression analysis.

**5.2. INTERPRETATION OF RESULTS**

The results of the empirical study are subsequently interpreted.

**5.2.1. Frequency distribution of team roles**

In the sample group there is a preference for the Driving Onward (46%) team role (Table 5.1), followed by Delivering Plans (20%). The predominance of the Driving Onward team role is probably because 62% of the respondents' fall within managerial functions (Table 4.2). Managers, both technical and non-technical, generally have to lead and direct teams, as well as provide the organisation with innovative ideas with which to achieve objectives, all of which are descriptive activities of the Driving Onward team role.

### 5.2.2. Frequency distribution of personality types

The data in Table 5.2 indicates predominance for the Sensing-Thinking (48%) and Intuitive-Thinking (44%) personality type categories. Thus, most people in the sample population have a strong preference for the Thinking personality type (reflected individually as 92%), but differ in their application of their Thinking personality type, either by focusing on the possibilities (Intuitive) or by focusing on the practicalities (Sensing). These results further suggest that the majority of the sample group would prefer to engage in team activities that focuses on “big picture” opportunities, similar to activities within the Driving Onward team role, or the actual detail of getting things done, similar to that of the Delivering Plans team role.

### 5.2.3. Correlation analysis between personality types and team roles

A positive statistical correlation between two variables implies that an increase in the one variable has a corresponding increase in another variable. A negative statistical correlation between two variables implies that an increase in the one variable has a corresponding decrease in the other variable. Table 5.5 summarises the findings of the statistical analysis.

**Table 5.5. SUMMARY OF THE STATISTICAL ANALYSIS FINDINGS**

<b>Personality Type (X variable)</b>	<b><i>Positive/Negative Correlation</i></b>	<b>Team Role (Y variable)</b>
Extraversion	<i>Positive</i>	Driving Onward
Extraversion	<i>Negative</i>	Delivering Plans
Sensing	<i>Negative</i>	Driving Onward
Sensing	<i>Positive</i>	Delivering Plans
Intuition	<i>Positive</i>	Driving Onward
Intuition	<i>Negative</i>	Delivering Plans
Thinking	<i>Positive</i>	Controlling Quality
Judging	<i>Negative</i>	Driving Onward
Judging	<i>Positive</i>	Planning Ahead
Perceiving	<i>Positive</i>	Driving Onward
Perceiving	<i>Negative</i>	Planning Ahead

The data reported in Table 5.5 denotes the personality types that predict team roles. According to Table 5.5, the Extraversion personality type has a positive correlation with the Driving Onward team role and a negative correlation with the Delivering Plans team role. This means that people with a preference for Extraversion will show a preference for the Driving Onward team role and reluctance for the Delivering Plans team role. The Introversion personality type does not have a correlation with any team role. The Sensing personality type has a negative correlation with the Driving Onward team role and a positive correlation with the Delivering Plans team role. A person with a Sensing personality type will therefore show a preference for the Delivering Plans team role and reluctance for the Driving Onward team role.

The Intuition personality type has a positive correlation with the Driving Onward team role and a negative correlation with the Delivering Plans team role. This means that a person with an Intuition personality type will show a preference for the Driving Onward team role and reluctance for the Delivering Plans team role. The Thinking personality type has a positive correlation with the Controlling Quality team role, which means that a person with a Thinking personality type will prefer the Controlling Quality team role. The Feeling personality type does not have a correlation with any team role. The Judging personality type has a negative correlation with the Driving Onward team role and a positive correlation with the Planning Ahead team role. This means that a person with a Judging personality type will show a preference for the Planning Ahead team role and reluctance for the Driving Onward team role. The Perceiving personality type has a positive correlation with the Driving Onward team role and a negative correlation with the Planning Ahead team role. A person with a Perceiving personality type will therefore show a preference for the Driving Onward team role and reluctance for the Planning Ahead team role.

#### 5.2.4 Multiple regression analysis between personality types and team roles

Because many of the predictor variables are confounded (i.e. not independent), a multiple regression analysis was used to identify the most significant variable. The Judging personality type did not feature as a statistically significant in the multiple regression analysis. The Perceiving personality type is considered a natural opposite of the Judging personality type

and it is speculated that Perceiving would also not be statistically significant in a multiple regression analysis with the Driving Onward team role. There is a strong statistical relationship between Sensing and Driving Onward ( $p=0.001638$ ) in the multiple regression analysis. It would therefore be more accurate to state that the Judging and Perceiving personality types have statistically significant relationships with the Driving Onward team role in the correlation analysis only because of its relationship with the Sensing personality type as explained in the multiple regression analysis. The Extraversion personality type has a marginal significance with the Driving Onward team role in the multiple regression analysis, and can therefore still be considered a predictor of the Driving Onward team role. Table 5.6 is an adapted summary of the research findings incorporating the results of the multiple regression analysis.

**Table 5.6. ADAPTED SUMMARY OF THE STATISTICAL RESEARCH FINDINGS**

<b>Personality Type (X variable)</b>	<b>Positive / Negative Predictor</b>	<b>Team Role (Y variable)</b>
Extraversion	<i>Positive</i>	Driving Onward
Extraversion	<i>Negative</i>	Delivering Plans
Sensing	<i>Negative</i>	Driving Onward
Sensing	<i>Positive</i>	Delivering Plans
Intuition	<i>Positive</i>	Driving Onward
Intuition	<i>Negative</i>	Delivering Plans
Thinking	<i>Positive</i>	Controlling Quality
Judging	<i>Positive</i>	Planning Ahead
Perceiving	<i>Negative</i>	Planning Ahead

Table 5.6 shows the personality types that are predictors of team roles after incorporating the results of the multiple regression analysis. The Extraversion personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Introversion personality type is not a predictor of any team role. The Sensing personality is a negative predictor of the Driving Onward team role and a positive predictor of the Delivering Plans team role. The Intuition personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Thinking personality type is a positive predictor of the Controlling Quality team role. The Feeling personality type is not a predictor of any team role. The Judging personality type is a positive predictor of the Planning Ahead team role, and the Perceiving personality type is a negative predictor of the Planning Ahead team role.

This means that the Judging (J) personality type is no longer considered a negative predictor of the Driving Onward team role because the statistically significant relationship between Judging (J) and the Driving Onward team role, as illustrated in table 5.5, is attributable to the relationship and interaction effects between Judging (J) and Extraversion (E). These results are contrary to the research hypothesis that all personality types are predictors of team roles. The direction of the analysis shows that only personality types identified in table 5.6 are predictors of team roles.

### 5.3. INTEGRATION OF RESEARCH FINDINGS

#### 5.3.1. Literature review

The aims of the literature survey (stated in Chapter 1) were addressed and achieved by Chapter 2 (personality types) and Chapter 3 (team roles).

Descriptions of behaviours for each of Jung's personality types in different work situations, as illustrated in Table 2.2, provided a basis with which to compare behaviours with those described in Millburn's five team roles. Table 5.7 outlines the postulated theoretical relationship between personality types and team roles.

**Table 5.7 HYPOTHETICAL RELATIONSHIP BETWEEN PERSONALITY TYPES AND TEAM ROLES**

<b>Personality Type</b>	<b>Team Roles</b>
Extraversion (E)	Enabling Action
Introversion (I)	
Sensing (S)	Controlling Quality; Delivering Plans
Intuition (N)	Driving Onward
Thinking (T)	Planning Ahead; Driving Onward
Feeling (F)	Enabling Action
Judging (J)	Planning Ahead
Perceiving (P)	



### 5.3.2. Empirical study

The first aim of the empirical study (stated in chapter 1) was addressed and achieved in chapters 4 and 5.

Table 5.2.2 indicate that the majority of the sample population have a strong preference for the Thinking personality type (reflected individually as 92%). It was postulated that there would be some form of relationship between the Driving Onward team role and the Thinking personality type. The frequency distribution of individual personality types therefore broadly concurs with the frequency distribution of team roles. The occupational profile shows that managers comprise 62% of the sample population. Managers are expected to engage in Driving Onward team role activities like developing concepts, providing teams with innovating ideas and directing action (Murphy, 1998). This broadly concurs with the frequency distribution of team roles, reflected as 46% of the sample population, outlined in Table 5.1. The occupational profile of the sample group is therefore in line with the mentioned observations.

The statistical analysis to test for any predictive value between the two variables indicated a significant relationship between certain personality types and team roles for the sample group. The direction of the analysis showed that personality types are predictors of team roles, but only for those specified in Table 5.6. This is in line with specific theoretical postulations outlined in Table 5.7, that personality types are predictors of team roles.

Although the analysis found statistically significant correlations that were not predicted by the theoretical postulation, it could be further assumed in the theoretical postulation that personality types, which are natural opposites on the same continuum, would reflect a converse relationship with a specific team role. The Judging and Perceiving personality types are natural opposites on the same continuum and have reflected a statistically significantly converse relationship with the Driving Onward and Planning Ahead team roles, respectively, in the statistical analysis. That is, the Judging personality type is a negative predictor of Driving Onward and a positive predictor of Planning Ahead, whereas the Perceiving personality type is conversely a positive predictor of Driving Onward and a negative predictor of the Planning

Ahead team roles. This result supports the assumption that personality types, which are natural opposites on the same continuum, reflect a converse relationship with a specific team role. However, the multiple regression analysis has eliminated the Judging (J) personality type, and consequently the Perceiving (P) personality type, as a predictor of the Driving Onward team role. These further supports the theoretical predictions outlined in Table 5.6, which excludes the Judging (J) and Perceiving (P) personality types as predictors of the Driving Onward team role.

The Sensing (S) and Intuition (N) personality types have also reflected a converse relationship with the Delivering Plans and Driving Onward team roles, respectively, in the statistical analysis. This further supports the assumption that personality types, which are natural opposites on the same continuum, will reflect a converse relationship with a specific team role. This statistical result implies that a person with an Intuition (N) personality type will show a preference for the Driving Onward team role, as speculated in the theoretical postulations, but would also show reluctance towards the Delivering Plans team role. Similarly, a person with a Sensing (S) personality type will show a preference for the Delivering Plans team role, but would also show reluctance towards the Driving Onward team role. This statistical result enables a further postulation that the Driving Onward and Delivering Plans team role could also be natural opposites on the same continuum.

The statistically significant relationship between the Extraversion (E) and Intuition (N) personality types and the Driving Onward team role allows for a postulation that a person with a Driving Onward team role preference will more likely show behavioural characteristics associated with the Extraversion (E) and Intuition (N) personality types. Similarly, a person with a Delivering Plans team role preference will more likely show behavioural characteristics associated with the Sensing (S) personality type, and a person with a Controlling Quality team role preference will most likely show behavioural characteristics associated with the Thinking (T) personality type. People with a Planning Ahead team role preference will most likely show behavioural characteristics associated with the Judging (J) personality type.

The statistical analysis however failed to provide supporting evidence for all the theoretical postulations. There was no significant relationship between the Extraversion (E) personality

type and the Enabling Action team role and the Feeling (F) personality type and Enabling Action team role. The analysis did not find any significant correlation between the Sensing (S) personality type and the Controlling Quality team role, the Thinking (T) personality type and Driving Onward team role, or the Thinking (T) personality type and Planning Ahead team role. Instead, the analysis found a statistically significant positive correlation between the Thinking (T) personality type and the Controlling Quality team role and between Intuition (N) personality type and the Driving Onward team role that was not postulated in the theoretical integration. This is due possibly to the limited sample size and occupational groupings.

With regard to the central hypothesis of this study, namely, if personality types refer to patterns in the way individuals prefer to perceive and make judgements when interacting with others and situations (Jung, 1959; 1971), then it can be assumed that a specific personality type will prefer a specific team role. Although the results obtained from the empirical study did not offer support for all the results obtained from the literature review, that is that personality types are predictors of team roles, the findings do suggest that only those personality types outlined in Table 5.6 are predictors of team roles.

#### **5.4. CHAPTER SUMMARY**

This chapter discussed steps 5 and 6 of the empirical investigation. The results of the empirical study were reported and interpreted, followed by an integration of the research findings. Chapter 6 discusses steps 7 to 8 of the empirical investigation.

## **CHAPTER 6: LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter focuses on steps 7 to 8 of the empirical investigation. Firstly, the limitations of the research will be discussed, followed by the formulation of the research conclusion, and recommendations of the research.

### **6.1. LIMITATIONS OF THE RESEARCH**

The limitations of the research are discussed with regard to the literature review and the empirical study.

With regard to the literature review, the following limitations were encountered:

- a limited amount of literature with reference to team roles exists;
- research on the linkages between team roles in work settings are limited and still need further exploration;
- a limited amount of literature exists on the relationship between personality types and team roles;
- a limited amount of research exists for the reliability of the TeamBuilder instrument.

With regard to the empirical study, the following limitations were encountered:

- the sample size was too small to draw significant conclusions and therefore limited the potential for generalisations of the results;
- the sample represented a only a limited work setting, namely management and professional teams in large organisations in the Western Cape. An exploration of a variety of work settings incorporating more levels and occupations could have provided more meaningful results by accommodating more possible team diversity and personality types;
- the MBTI (Briggs & Myers, 1977) requires an individual frame of reference of reporting one's natural preference, and not one's "work self" or "ideal self". It is difficult to monitor participants' frame of mind when answering the MBTI, and could have influenced the results;

- this study only accounted for participants' team role scores. The TeamBuilder questionnaire (Murphy, 1998) provides results of the participant's preference for teamwork, team role under pressure, as well as the participant's secondary team role and team role communicated to other team members. These were not taken into consideration and could have yielded more insightful conclusions;
- preference scores obtained on the MBTI (Briggs & Myers, 1977) indicate the strength of the preferences. These were not taken into account in the data analysis. Only the raw scores of the preferences were utilised for the purpose of this research;
- the research focused only on the individual personality types and on the combination of the attitudes and functions personality type groupings, and not on the 16 personality types. The dynamic interrelationship between team roles and the 16 personality types might have provided more meaningful insight;
- team role scores obtained from the TeamBuilder questionnaire (Murphy, 1998) indicate the strength of the preferences for each team role. These were also not taken into consideration in the data analysis. Only the raw score of the preferences was utilised for the purposes of this research.

## 6.2. CONCLUSIONS

From the integration of the research findings, the overarching conclusion can be drawn that the research succeeded in its aim. Research conclusions will subsequently be formulated with regard to the research, literature review and the empirical study for each of the research aims stated in point 1.3.

### 6.2.1. Research

Additional research is required to continue to examine the relationship between personality types and team roles. Stronger results may be obtained if various explorations are made. A broader sample base could expand the generalisation of the research findings. Research could also be done in different work settings, organisations, and occupational categories.

## 6.2.2. Literature Review

### **First Aim**

The first aim, namely to define and determine the nature of personality types, was achieved in chapter 2 (refer to point 2.3).

- personality types are combinations of attitudes and functions. Attitudes are either Extraversion or Introversion, whereas functions are Sensing, Intuition, Thinking, and Feeling.
- personality can be structured into eight types concerning the use of Perception and Judgement, each characterised by definable set of behaviours (Moller, 1995).

### **Second Aim**

The second aim, namely to define and determine the nature of team roles, was achieved in chapter 3. It can be concluded that:

- team roles are behavioural tendencies that contribute and interrelate in distinctive ways with other behavioural tendencies within a team
- effective teams are those in which each team role is given equal status and attention and depends on each member's understanding of their role and the synergistic relationships between their role and other roles held by team members. Hence, successful teams are those whose membership is broad enough so that all the necessary roles are filled.
- individuals develop a primary preference for a certain role within a team. Consequently, an individual's effective and sustainable contribution to a team is primarily determined by their preference for a particular team role. Furthermore, the sustainable effectiveness of an individual's contribution to a team is, in turn, influenced by the satisfactory fulfilment of their preferred role (Murphy, 1998).

### **Third Aim**

The third aim, namely to postulate and determine the theoretical relationship between personality types and team roles was achieved in the theoretical integration. The following can be concluded:

- A theoretical relationship does exist between personality types and team roles. This postulation is based on the apparent association between the behavioural descriptions of the hypothetical relationship between personality types and team roles (table 3.4.). It appears, through the literature, that these personality types share the same underlying behavioural characteristics and tendencies as the team roles.
- Both the model of personality types and the model of team roles can provide intriguing synergistic insights into behaviours within teams.

### 6.2.3. Empirical Study

#### First Aim

The first aim was to determine whether personality types predict team roles. This was achieved in chapters 4 and 5. The following can be concluded: The Extraversion (E) personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Introversion (I) personality type is not a predictor of any team role. The Sensing (S) personality type is negative predictor of the Driving Onward team role and a positive predictor of the Delivering Plans team role. The Intuition (N) personality type is a positive predictor of the Driving Onward team role and a negative predictor of the Delivering Plans team role. The Thinking (T) personality type is a positive predictor of the Controlling Quality team role. The Feeling (F) personality type is not a predictor of any team role. The Judging (J) personality type is a positive predictor of the Planning Ahead team role, and the Perceiving (P) personality type is a negative predictor of the Planning Ahead team role.

These conclusions are based on the research findings, and shouldn't be accepted in general terms as the sample represented only a limited range of work settings, occupational groups and organisations. An exploration of a variety of work settings, occupational groups, teams and organisations could provide more meaningful and positive results.

## Second Aim

The second aim, namely to make recommendations regarding the research findings on personality types and team roles, will be discussed next.

### 6.3. RECOMMENDATIONS

Against the background of the aforementioned conclusions, recommendations will be formulated with regard to personality types and team roles in selection and teambuilding, and research.

- Both the Personality Type theory and the Team Role model can be used as a process of self-enlightenment towards more effectively being able to contribute to a team.
- Personality type profiles can assist in predicting a team member's preferred team role.
- human resources and organisational development practitioners must take cognisance of the impact of personality types and team roles in the overall effectiveness of teambuilding interventions and initiatives. Emphasis should be focused on enhancing the self-awareness of team members' by identifying their true personality type, thereby enabling them to predict their preference for a team role;
- Traditional selection and assessment methodologies in organisations have predominantly focused on individual characteristics such as personality types to obtain the best match between the individual and the job. It therefore does not make provision for assessing whether job applicants are an appropriate fit within a team. The outcome of this research makes it possible to predict team roles from the assessments of personality types.
- Selection and assessment practitioners can therefore simultaneously assess and select a balance of team roles to a project team; thereby reducing the reliance on team role measurement instruments;
- Each team role description in the TeamBuilder model can incorporate additional relevant behavioural descriptions of the personality type that is a significant predictor of the team role. More specifically, people with a Driving Onward team role preference will more likely show behavioural characteristics associated with the Extraversion (E) and Intuition (N) personality types. People with a preference for the Delivering Plans team role preference will more likely show behavioural characteristics associated with the Sensing



(S) personality type, and a person with a Controlling Quality team role preference will show behavioural characteristics associated with the Thinking (T) personality type. People with a Planning Ahead team role preference will most likely show behavioural characteristics associated with the Judging (J) personality type.

- Similarly, each personality type description can incorporate additional literature on a personality type's probable preference of a team role in team settings. More specifically, a person with an Extraversion (E) personality type will show a preference for the Driving Onward team role and reluctance towards the Delivering Plans team role. People with a Sensing (S) personality type will show a preference towards the Delivering Plans team role and reluctance towards the Driving Onward team role. People with an Intuition (N) personality type will show a preference for the Driving Onward team role and reluctance for the Delivering Plans team role. People with a Thinking (T) personality type will show a preference for the Controlling Quality team role. People with a Judging (J) personality type will show a preference for the Planning Ahead team role, whereas people with a Perceiving (P) personality type will show reluctance for the Planning Ahead team role.

The research aim was to determine personality types as predictors of team roles from within Jung's model of personality types and Millburn's TeamBuilder model of team roles. Based on the research findings, recommendations were made with regard to personality types and team roles in selection, teambuilding, and research.

In conclusion, the research has provided a glimpse into which personality types act as predictors of team roles for a small sample of employees in Western Cape organisations. The sample was unfortunately too small to generalise the findings to all organisations and occupational groups. The constructs, theoretical models and correlations between the two variables provide more insights into personality types and team roles.

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## APPENDIX 1

167 2<sup>nd</sup> Avenue  
Grassy Park  
7941  
Cape Town

[Participant Name]  
[Address]

[Date]

### PARTICIPATION IN RESEARCH STUDY

Dear [Participant Name]

Thank you for agreeing to participate in my research study: "Personality Type as Predictor of Team Roles". The following questionnaires are enclosed which you are requested to complete and return to the abovementioned address.

- **TeamBuilder Questionnaire.** This questionnaire is virtually self-administering with all the necessary instructions on the disk cover for loading the questionnaire on either Windows 3.1 or Windows 95. Once installed, all other procedures relating to the completion of the disk are windows-driven. This questionnaire has no time limit. You are not allowed to omit any items, and the computer driven questionnaire will not proceed to the next item or question until the present question has been answered.
- **MBTI.** This questionnaire is also self-administering. All necessary instructions are contained on the cover of the question booklets and on the response sheets.

You are also requested to complete the biographical questionnaire below which you need to return along with your TeamBuilder disk and MBTI response sheets. Please mark your selection with a tick:

## BIOGRAPHICAL QUESTIONNAIRE

Name:

Surname

Organisation Group:

Technical Professional  
Non-Technical Professional  
Manager (Technical)  
Manager (Non-Technical)

Age Category:

20-29 Years  
30-39 Years  
40-49 Years  
50 + Years

Gender:

Male  
Female

Years of Service in Current Organisation:

Less than one Year  
1-5 Years  
5-10 Years  
10-15 Years  
More than 15 Years

Do you require feedback on your TeamBuilder and MBTI results?  
Do you require feedback on the outcome of this study?

Yes: No:  
Yes: No:

Once again, thank you for agreeing to participate in this study.

Regards,

Malcolm Gabriel  
Masters Student, University of South Africa (UNISA)