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A STUDY OF THE CAREER COMMITMENT,
STRESS LEVELS, AND COPING RESOURCES
OF MUSICIANS, AND THE INFLUENCE
OF PERSONALITY

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ABSTRACT

The present study is an attempt to explore the career commitment, stress, and coping resource issues of musicians, and possible relationships between them. The personality profiles of the musicians are also examined to determine possible interactions with experiences of stress and coping, and career commitment. These areas have not been previously explored within New Zealand, and international research pertaining to the career commitment, stress, coping and personality of musicians is limited. The present study utilised quantitative data, collected through a survey. A questionnaire was distributed to all members of the Auckland Symphony Orchestra and all employees of the Music Education Centre. There were 52 respondents. The questionnaire consisted of three scales, including a commitment scale, the Occupational Stress inventory (OSI), and the NEO PI-R. The participants were grouped according to whether they were a fulltime performer or music teacher, both a teacher and performer, or in one of those groups, but earning their primary income from other work. Results indicated that this sample of musicians were committed to their musical careers. Overall, the musicians did not experience high levels of occupational stress or personal strain, and had good coping resources. It was found that female musicians had significantly greater rational/cognitive coping skills and experienced less vocational strain than did the male musicians. Musicians with a teachers or performers diploma were found to experience significantly less psychological strain than musicians with grade 8. In terms of personality profiles, male musicians were significantly less agreeable and less conscientious than female musicians were, and divorced musicians were found to be significantly more agreeable than single musicians. Individuals with a grade 8 qualification were more neurotic than individuals who have a performers or teachers diploma. The results suggest that this sample of musicians differ from those previously researched in terms of stress, coping, and personality. The key implication of the present study is that analysing musicians in terms of how they structure music into their lives produced the differing results, which given the arguments in the literature, may be more reflective of reality.

CHAPTER ONE: INTRODUCTION

As a group, musicians have received some attention in the psychology and music/arts related literature, but the research has been diverse with extensive research of any particular focus being minimal. For example, musicians have been studied in terms of motivation (Juniu, Tedrick, & Boyd, 1996), stress (Steptoe, 1989; Sternbach, 1995), personality (Cooper & Wills, 1989; Kemp, 1981, 1982), burnout (Hamann, Daugherty, & Mills, 1987), career stability and career development (Cooper & Wills, 1989) and career commitment (Schneider, 1990; Smith 1988).

Within the broad category of musicians, researchers have studied performers, including amateur, professional and non-professional musicians (Cooper & Wills, 1989; Juniu et al.1996), and music teachers (Hamann et al., 1987; Kemp, 1982). Analysis of available literature suggests however that performing musicians have received a great deal more attention in research than have music teachers. Research investigating musicians who both teach and perform is negligible.

In recent years people have become more committed to their own careers due to changes and uncertainties in the environment (Carson & Bedeian, 1994). Many individuals are now unable to depend on a single organisation to sustain a particular career (Bremner, Robello, Schiller, & Weber, 1991). The importance of career commitment is highlighted by research suggesting that career experiences contribute extensively to one's life satisfaction (Colarelli & Bishop, 1990). Career commitment has become a key variable in many organisational behaviour models as it has been identified as being related to work-related outcomes such as job performance (Darden, Hampton, & Howell, 1989), skill development (Ayree & Tan, 1992), and stress (Matheiu & Zajac, 1990). Further, career commitment has been identified as being important for career development and progression (Colarelli & Bishop, 1990).

Research pertaining to the career commitment of musicians is negligible. Musicians however, are as vulnerable to change as any group of working people. This is accentuated by the unstable nature of the music industry (Sternbach, 1995). It is argued that a musician's career is difficult and frustrating, especially that of performing musicians, which is argued to be a road of challenges and disappointments (McAuliffe, 1977).

Research indicates that commitment and stress are related. For instance, research suggests (Jackson, Turner, & Brief, 1987; Matheiu & Zajac, 1990; Reilly &

Orsak, 1991) that there is an inverse relationship between career and organisational commitment and stress. Research also shows that work-related stress is exacerbated in professions requiring constant contact and involvement with people, such as musicians (Revicki, Harold, & Whitley, 1991).

Whilst the stress experienced by music teachers has received very little attention in research, it is argued that there are many stressors in the careers of performing musicians (Steptoe, 1989). A number of these are argued to be unique to them as a profession, and largely promoted by their lifestyles (Cooper & Wills, 1989). These stressors are extensive (Cooper & Wills, 1989; Sternbach, 1995) and are addressed in a later chapter. The ability of musicians to cope with the stressors they face has received minimal attention in research (Hamann et al., 1987).

Personality, as either a moderator or mediator, is argued to play a major role in the nature and magnitude of stress responses (Parkes, 1990). It has been found to have an influence on whether a given situation is considered stressful (Evans, Pulsane, & Carrere, 1987). The literature investigating personality differences among musicians reflects the literature assessing musicians in terms of career commitment and stress. It is limited and somewhat fragmented. The profiles of musicians have received some attention in research, for example Cooper & Wills (1989) and Kemp (1981, 1982), however recent research in this area is sparse. Overall the literature suggests that performing musicians are more introverted and detached from other people, whereas music teachers are more outgoing and have higher levels of realism (Kemp, 1982). Further, musicians have been found to have higher levels of neuroticism and psychoticism (Cooper & Wills, 1989). Early research also found variance in personality across musicians which has been attributed to the instruments they play (Kemp, 1981).

The present study will research a sample of musicians in relation to the constructs of career commitment, stress and coping, and personality. The ensuing chapters will address the theories and relevant research relating to each of these constructs. Given the limited research that has been conducted with musicians in these areas, it is difficult to generate hypotheses based on previously conducted research. Hence, the present study is largely exploratory in nature. The research questions the present study will address are discussed at the conclusion of the relevant chapters.

CHAPTER TWO: CAREER COMMITMENT

Career Theory – An Overview

Today's environment is dynamic and is characterised by rapid and constant change. Accompanying this turbulence are fundamental changes in the nature and notion of careers (Hall & Moss, 1998). The lack of agreement regarding what constitutes a career has made it a difficult construct to operationalise, and a number of definitions have emerged in the literature (Blau, 1985; Greenhaus, 1987; Hall, 1971; Hall & Moss, 1998; Stephens, 1994).

Stephens (1994) argues that a career can be defined as the attitudes, behaviours, or activities associated with work roles that individuals experience throughout their life. According to Stephen this notion of careers has two components. The first is the subjective career, which is internal to the individual. This is the attitudes, perceptions, and orientations that are held by the individual regarding their career. The second component is the objective career. This is the externally defined reality of the career which is composed of the observable activities, events, or behaviours that make up an individual's work history.

Until recently a perceived norm has been that most people will have the stability of a single career in a single organisation, however, given the current unpredictable work environment the majority of people can no longer expect this ideal to continue. In fact, it is predicted that for most people working lives or "careers" will become increasingly unstable and discontinuous (Fay, 1995; Stephens, 1994).

Hall and Moss (1998) argue that career contracts, which are agreements between an individual and an organisation, have shifted from the organisational career to the "protean career". The organisational career was the notion that an organisation managed the individual's career. The newer process of the person managing their career is the protean career. It incorporates all the experiences a person has including education, training, and work in different organisations/occupational fields. The integrative elements in the individual's life are the person's choices and search for self-fulfilment. Rather than there being an external criterion for success, there is an internal criterion, namely psychological success.

In recent years, the notion of careers has become more important to

individuals, organisations, and society (Bedeian, Kemery, & Pizzolatto, 1991), because of the fact that many individuals are now unable to depend on a single organisation to sustain an entire career (Bremner, Rebello, Schiller, & Weber, 1991). People have become increasingly committed to their own careers in response to such uncertainty (Carson & Bedeian, 1994). As a result organisational and vocational psychologists have given increased attention to the construct of career commitment (Arnold, 1990). The examination of an individual's level of career commitment has become an important part of understanding an individual's career motivation (Blau, 1989).

Career theory attempts to explain occupational variables such as type of job and income, and psychological variables such as job-related stress and job satisfaction (Sonnenfeld & Kotter, 1982). Aspects of careers such as career development and career choice have been extensively investigated (Holland, 1966; Super, 1957), although empirical research appears to be somewhat limited in the area of career commitment (Aryee & Tan, 1992). This is argued to be gradually changing as the occupational-related literature experiences a resurgence of interest in commitment to one's profession, vocation, or career (Colarelli & Bishop, 1990).

Work Commitment Theory

It is generally acknowledged that commitment is a complex, multidimensional construct (Meyer & Allen, 1997) that has implications both in terms of performance and membership. Commitment can have different foci (Meyer & Allen, 1991), such as commitment to one's organisation, career, profession, or community. There can also be differing foci within this commitment (Becker, 1992), for example an individual can feel committed to his/her spouse, family, work team, supervisor, or manager. Research is now acknowledging the different foci (Meyer, Allen, & Smith, 1993), and recognising that an individual may be as committed to their career as they are to their organisation (Steffy & Jones, 1988).

The literature indicates that the growth in commitment related concepts has not been accompanied by a careful segmentation of the commitment domain (Morrow, 1983). Analysis of the literature indicates that there has been endless confusion regarding conceptual definitions, and this is reflected in attempts to measure the construct of commitment (Allen & Meyer, 1990; Morrow, 1983). In fact,

several distinct views of commitment have been developed and become well established (Blau, 1985,1988; Carson & Bedeian, 1994; Meyer & Allen, 1991). Meyer, Allen, and Gellatly (1990) assert that this makes it unlikely that one view will ever become accepted as being the "correct" definition and dominate the commitment domain.

A number of major reviews of work commitment theory have been conducted (eg. Morrow, 1983, 1993). The proliferation of work commitment concepts provides evidence of the considerable research interest that has evolved in work and worker related experiences, and the processes through which individuals become committed to their work (Morrow, 1983).

To date the majority of the commitment research has focused on organisational commitment (eg. Hall & Moss, 1998; Mathieu & Zajac, 1990; Meyer & Allen, 1997; Meyer, Paunomen, Galley, & Jackson, 1989; Porter & Steers, 1973) however later research also conceptualises it in terms of norms, values, work ethics, jobs, and careers (Morrow, 1993).

Morrow (1983) identified five predominant work commitment foci in an attempt to clarify the confusion in this domain. They were career commitment (eg. career identity, career salience), job commitment (eg. job involvement), organisational commitment, union commitment, and commitment to one's values (eg. Protestant work ethic).

Morrow (1983) described the empirical and theoretical relations among these five forms of work commitment, and found redundancy between a number of the work commitment facets. However, Morrow also questioned the usage of work commitment as a generic term arguing that the likelihood of devising a single, unidimensional concept for the domain of commitment is small due to the differences that were found among the five foci of commitment.

Following analyses of work commitment concepts and measures, Morrow (1993) asserts that rather than redundancy occurring due to concepts overlapping, the redundancy is more likely to be a function of overlapping commitment measures. Some degree of overlap could be logically expected, because the measures may share common antecedents (Morrow et al., 1991). Further, whenever there is a link between a conceptual definition and a measurement procedure there is the potential for concept redundancy, often referred to as the issue of content validity (Morrow, Eastman, & McElroy, 1991).

Many work commitment measures relating to identified work commitment foci have been developed and studied over the years (eg. Blau, 1985; Blau, Paul, & St John, 1993; Carson & Bedeian, 1994). Of Morrow's (1983) five work commitment concepts, relatively well-developed measures exist for job, value, organisational, and union foci (Morrow & Wirth, 1989). Although the development of career commitment measures initially lagged behind somewhat (Morrow, 1983), career commitment measures have been developed, for example Blau (1985, 1988, 1989) and Steffy and Jones (1988). Morrow (1993) purported that the most promising measures of career commitment evolve from Blau's work. Since then other commitment scales have been developed, such as Carson & Bedeian's Career Commitment Measure (CCM) (1994). However, Blau's (1985, 1988, 1989) scale is still predominant in the commitment domain.

Career Commitment

Career commitment has been conceptualised in various ways, and as with the notion of "careers", various definitions have emerged (Allen & Meyer, 1990). Career commitment has been defined as an individual's identification with and involvement in his/her occupation (Mueller, Wallace, & Price, 1992), and as an internalisation of the values associated with one's chosen profession, career, or vocation (Morrow, 1983). It was succinctly defined by Blau (1988) as being the attitude an individual has toward his/her vocation, including a profession. Blau purports that the use of "profession" and "vocation" is necessary in order to prevent career commitment being redundant with other work related attitude terms such as organisational commitment, job involvement, or work involvement (Blau, 1988).

In early research Morrow (1988) suggests that more validation work is needed on the notion of career commitment in order to substantiate its independence. She argues for the identification of an alternative concept, which may reduce the redundancies among the career concepts. The alternative she proposed was that of professionalism, which is the degree to which one identifies with one's profession and accepts the values of that profession.

In later research Morrow (1993) purports that as there appears to be increasingly fewer differences between occupations, jobs, and professions, career commitment should be used in lieu of professional commitment. Additionally, as a

life long pattern of paid employment in one “job” is becoming uncommon, individual’s are being forced to think more in terms of the broader concept of “career” rather than in “job” terms, making the notion of “career” commitment more applicable.

Career Commitment – Dominant Theoretical Frameworks and Measurement

Three dominant theoretical frameworks and subsequent measures have emerged within the career commitment domain. The first was developed by Blau (1985, 1988, 1989), the second by Carson and Bedeian (1994) based on the work of London (1983), and the third was developed by Meyer and Allen (1991).

Blau’s (1985, 1988) research forms the basis of the argument that career commitment is distinguishable from established measures of organisational commitment and job involvement, both empirically and conceptually. Blau (1989) argues however that the minimum professional characteristic threshold level in a vocation or profession still has to be determined. This is the level at below which career commitment can not be distinctly operationalised. He asserts though that the issue is whether there is a threshold level or construct boundary for career commitment. More simply, is there a point at which employees will cease to distinguish their job or organisation from their vocation.

Blau (1985) developed a reliable measure of career commitment that demonstrated discriminative validity relative to organisational commitment and job involvement measures. The preliminary evidence suggested that the measure possessed encouraging psychometric properties, although this assessment is based on relatively few data sets. In later studies however, additional evidence for discriminant and convergent validity was found, providing further support for this commitment measure (Blau, 1988, 1989).

In his research, Blau (1988) found that career commitment was negatively correlated with career withdrawal cognitions among nurses. These findings were later replicated with bank tellers (Blau, 1989). It was also found in this later research that career commitment predicted turnover, specifically career turnover rather than job turnover, through career withdrawal cognitions.

Steffy and Jones (1988) also found organisational commitment and career commitment to be independent. Further evidence of discriminative validity was also

found utilising measures other than Blau's (Morrow & Wirth, 1989; Steffy & Jones, 1988).

There are concerns with Blau's measure. Questions have been raised as to how well the content in the measure adequately samples the domain of career commitment, given that it was developed by extracting items from existing measures. This has led to questions surrounding the issue of content validity (DeVellis, 1991, cited in Carson & Bedeian, 1994; Morrow & Goetz, 1988). It is argued though that Blau's measure of career commitment is more likely than other measures to represent a generic career focus concept because it can be applied to a wide range of occupations (Morrow & Wirth, 1989).

Carson and Bedeian (1994) follow Hall's (1971) conceptualisation of career commitment and view it as being the motivation an individual has to work in a chosen vocation. Based on the work of London (1983), they view career commitment as being a multidimensional construct which has three parts: career identity, career planning, and career resilience.

London (1983) argues that career identity relates to the centrality of one's career to one's identity. Career identity is founding a close emotional association with one's career. Career planning is viewed as the extent to which an individual has a realistic view of her/himself and involves determining one's developmental needs and setting goals and objectives. Career resilience deals with an individual's resilience to career disruption, and is the ability of an individual to resist career disruption in the face of adversity.

London further purports that career behaviours, such as a decision to change careers, are affected by these factors. Career commitment is part of London's career identity and career resilience components (London, 1983). Building on the work of London, Carson and Bedeian (1994) developed the Career Commitment Measure (CCM). Initial empirical data is supportive of the measure's validity and reliability.

Meyer and Allen (1991) developed a three-component model of organisational commitment, which was later generalised to occupational commitment also (Meyer, Allen, & Smith, 1993). The organisational model identified three distinct themes in defining organisational commitment. These were (a) commitment as a perceived cost associated with leaving the organisation, (b) commitment as an obligation to remain in the organisation, and (c) commitment as an affective attachment to the organisation. These they referred to as continuance, normative, and affective commitment,

respectively. Research suggests that the three components of organisational commitment are psychometrically sound (Allen & Meyer, 1990; Meyer & Allen, 1997).

The psychological nature of each is quite different. Individuals with a high continuance commitment remain with an organisation because they need to, whilst those with a high normative commitment remain because they think that they should, and those high in affective commitment remain because they want to. Meyer and Allen (1997) argue that in order to understand an individual's relationship with the organisation it is necessary to consider all three.

In generalising this model to occupations, Meyer et al. (1993) created measures of occupational commitment that parallel the measures of affective, continuance, and normative organisational commitment. The researchers note that they chose to use the term "occupation" over "profession" on the basis that nonprofessionals can also experience commitment to the work they do. The term "career" was not used because Meyer et al. argued that they considered the meaning of career to be highly ambiguous.

Meyer et al. (1993) found the underlying constructs of affective, continuance, and normative commitment to be generalisable to the occupational commitment domain. Irving, Coleman, and Cooper (1997) found further support for this. They argue that affective, continuance, and normative commitment are distinguishable across occupations, thus providing evidence in support of the validity of Meyer et al.'s (1993) three-component model of occupational commitment.

Taking a multidimensional approach has the value of providing a more complete understanding of a person's commitment to his/her line of work. A person's commitment may vary greatly depending on which form and foci of commitment is predominant. A person who has a strong continuance commitment may be less inclined to involve themselves in occupational activities other than those required for continuing their role functions. Individuals with high affective commitment and normative commitment are more likely to become involved in activities outside their prescribed roles/jobs/activities (Meyer et al., 1993).

The present study utilises the theoretical approaches and measures of Blau (1985, 1989) and Carson and Bedeian (1994). An additional four extra questions developed by the researcher were also added which relate to the protean notion of careers. The specific scale will be discussed in more detail in the methodology

section. Meyer and Allen's (1991) work is not utilised as it was decided that their work, which was developed within an organisational context was less applicable to the sample population of musicians.

Career Commitment Research

Career commitment has become a key variable in several integrative models of organisational behaviour as it has been identified as being related to work-related outcomes such as job performance (Darden et al., 1989), skill development (Aryee & Tan, 1992), and actual turnover (Bedeian et al., 1991).

The importance of career commitment is highlighted by research suggesting that career experiences can contribute extensively to one's life satisfaction. Research indicates that career commitment is important for career development and progression (Colarelli & Bishop, 1990).

Whilst some studies have suggested that career commitment does impact upon subsequent work behaviour (Darden et al., 1989; Koslowsky, 1987), clear relationships have not always been found (eg. Wiener & Vardi, 1980). However, evidence is growing which suggests that there are important consequences of career commitment.

It has been found that work role salience impacts upon career commitment. Ayree and Tan (1992) found that individuals low in work role salience are less likely to take advantage of opportunities for development provided by an organisation than those high in work role salience. They also found that organisational opportunities for development showed a significant direct and indirect path to career commitment, through both career satisfaction and organisational commitment.

Aspects of the employer-employee psychological contract (Hall & Moss, 1998) involve career commitment issues. Porter and Steers' (1973) assert that one brings expectations to work situations, and such expectations must be met in order for the person to stay within the work environment. Jauch, Osborn, and Terpening (1980) argue that opportunities for career growth would be an example of such an expectation for those individuals who are committed to their careers. It would thus be reasonable to propose that an interaction would occur between expected utility of an individual's work for attaining valued career outcomes and career commitment. This would impact upon the individual's decision to stay with the organisation/group or to

leave.

Research also indicated that people with anticipated opportunities for career growth and higher levels of career commitment were less likely to express intentions to leave their work. Conversely, individuals with lower levels of commitment expressed intentions to leave, or did leave (Bedeian et al., 1991). This added support to previous research by Neapolitan (1980). Their data suggested that individuals high in career commitment considered leaving when career growth opportunities were not apparent.

Aryee & Tan (1992) suggest that their findings, of a significant positive relationship between career satisfaction and career commitment, are consistent with Hall's (1971) views. Hall suggested that individuals able to achieve their career goals are likely to be more satisfied, and thus are more likely to identify with their career role. This identification will be reflected through their career commitment.

In general these studies have not produced clear-cut results. There is limited theory concerning the predictors of career commitment (Arnold, 1990). More research is necessary to identify the causes of career commitment (Blau, 1988). The focus in research to date has been predominantly on organisational commitment rather than career commitment (e.g., Meyer et al., 1989; Reichers, 1985). Nevertheless it is argued that the theoretical approaches that underlie organisational commitment are relevant to career commitment (Meyer et al., 1989).

The Careers and Career Commitment of Musicians

Analysis of the literature reveals that research on musicians and their career commitment/career issues is very sparse. Of the research that has been conducted, the focus has been on performing musicians (eg. Schneider, 1990; Smith, 1988) whilst music teachers have been largely neglected.

A musician's career is difficult and frustrating and the life of a performing musician is a road of challenges and disappointments (McAuliffe et al.). The limited research available suggests that those individuals pursuing a career as a performing musician need to consider a number of realities with this pursuit. They must consider whether they are prepared to put up with travel for years, and are content with having an unstructured lifestyle. Also, they must consider whether they want to marry and have children in an unstable work environment, and what backup career they have to

fall back on other than teaching (McAuliffe et al., 1977).

It is argued that performing musicians must be prepared for the likely economic necessity of having to supplement their income with teaching or some other form of work (McAuliffe et al., 1977). Initially this was found in research conducted with classical instrumentalists (McAuliffe et al.), however later research (Schneider, 1990; Smith, 1988) suggests that this does not apply exclusively to this group. The majority of musicians often find only part-time music work and have to supplement their income with other work. In reality, many decide they can not support themselves as full-time musicians and take full-time work in other occupations, working as part-time musicians (Schneider, 1990; Smith, 1988).

The life of an orchestral musician appears to be somewhat different to that of other musicians. Smith (1988) interviewed fourteen musicians from an American Symphony Orchestra and found that most indicated that they would become musicians if they had to do it all over again. Many of the players are in the orchestra because of the prestige of being in it. The top orchestras pay the highest salary so this is also a reason why players aim for such orchestras (Smith & Murphy, 1984).

The participants in Smith's (1988) research did complain however that they could not be as creative in their profession as they would like to be, given that they were under the direction of the conductor. Regardless, Smith found that overall the career of a professional musician in a top symphony orchestra is more enjoyable than many professional music careers. However this research only considers those orchestral players within top American orchestras who are in full-paid employment with the orchestra (Smith & Murphy, 1984).

These findings are in contrast to the views of Smith and Murphy (1984). Smith and Murphy assert that the symphony orchestra is musically a dead place of employment because under the direction of a conductor individuals lack the flexibility and creative space to be their own musician. Instead they produce what the conductor wants and how they would like it. Thus, Smith and Murphy argue that as orchestral players pursue their careers they may lose intrinsic satisfaction from their work.

In their research examining the career commitment of performing musicians, Smith and Murphy (1984) found that higher levels of both intrinsic and extrinsic satisfaction increase commitment levels in players. Extrinsic motivation significantly depended on the players income. The results suggested however that although the players rated the objective criteria highly, equally important was the subjective

evaluations the players made of their work. A further interesting finding was that the commitment of players increases when they are married.

Research Questions

It is clear that research in this area is minimal and insufficient. The specific career issues affecting musicians, the choices they make regarding their career, and their commitment to their career has received little attention in research. The research that has been conducted has concentrated on general investigations on the lives performing musicians (McAuliffe et al., 1977; Schneider, 1990; Smith & Murphy, 1984). The career issues and commitment of music teachers appears to have not been considered extensively. Further, recent research which considers the issues facing musicians, both performers and teachers, in today's society is lacking.

Additionally, it appears that there is no research specifically focusing on musicians in New Zealand. The cited research was based on American/British samples. New Zealand is likely to be quite different as many musicians playing in orchestras are not paid, unlike many American musicians. There may be different issues that arise within the career commitment area. Thus, the present study will address the career commitment of a sample of musicians within New Zealand, hence beginning the development of research in this area. Given that some musician may view their work as being a recreational activity, the commitment investigations in the present study includes questions pertaining to career commitment and recreational commitment. The research questions to be addressed in this study are:

1. How committed are musicians to their careers?
2. Are there differences among musicians in career commitment or recreational commitment depending on how they structure music into their lives?
3. Are there differences in career commitment or recreational commitment among musicians who play different instruments?
4. Are there significant demographic differences in the career commitment and/or recreational commitment of musicians?
5. What are the factor structures of the career commitment and recreational commitment measures utilised in the present study?

CHAPTER THREE : STRESS, STRAINS, & COPING

Stress: Theories and Definitions

Literature discusses stress as being a fact of the busy, modern lives people lead. Wherever one looks, psychologists, epidemiologists, therapists, consultants, or journalists for example, provide a multitude of guidelines on the nature of stress (Newton, Handy, & Fineman, 1995).

There is extensive and diverse literature on stress and psychological well-being (Daniels & Guppy, 1994). It has been hypothesised that many variables, both of a personal cognitive nature and of a social/organisational nature, impinge upon the relationship between occupational stress and well-being (Beehr & Newman, 1978).

Numerous definitions of stress have emerged through research, and as a result the term stress is enshrouded by a veil of conceptual confusion (Motowidlo, Packard, & Manning, 1986). As a concept, stress is continually defined in several fundamentally different ways, and at a number of different levels of analysis (Cox, 1978; Dewe, 1991). Stress can be treated as a stimulus, a response, or as a result of some interaction or imbalance between the individual and environmental demands (Cox, 1978; Dewe, Cox, & Ferguson, 1993; Lazarus, 1995; McGrath, 1970; Newton, 1989).

In terms of stress research, a great deal of attention has been given to identifying work stressors. Less research has focused on person variables and the actual stress process itself, that being stressful transactions that take place between individuals and the environment. Changes in stress from moment to moment, and encounter to encounter has received almost no attention (Lazarus, 1995).

Lazarus (1995) asserts that the dominant approach has been to treat antecedent variables of stress reactions, both person characteristics and environmental conditions as being separate. They are viewed as being static causes of behavioural and medical states (eg. illness, burnout, work dissatisfaction). He argues further that although such approaches correctly identify a number of normative antecedent and consequent environmental and personality variables, the utility of these approaches when dealing with individual working people and groups suffering from excessive stress is questionable. Lazarus purports that this is because theoretical approaches which focus on the person-environment fit are static, focusing on stable relationships rather

than acknowledging the flux or process in which stress constantly changes over time.

Lazarus argues that to carry theoretical views over from other disciplines (eg. medicine, clinical psychology, and personality psychology) is too simplistic. He purports that one should not make the assumption that personality traits make people function either badly or well in given situations. Although this view has probabilistic validity, in reality in an organisational context workers who respond “well” to stressful experiences may also respond “badly” to stress generated in particular encounters, for example evaluations, possible promotions, or situations of conflict (Lazarus, 1995).

In making these arguments, Lazarus is not trying to challenge the conclusion that particular work situations are stressful, but is pointing out that to conclude that, is insufficient, as psychological stress and its detrimental outcomes are quite individual in nature. He asserts that researchers will handicap their understanding of stress and subsequent efforts to measure, and then reduce or prevent it in the workplace, if they omit consideration of what is personally involved for individuals and their particular collectives, and also the contexts they are operating in.

Within the stress domain, transactional theories of stress are predominant. The transactional theoretical approach conceptualises stress as being those transactions where environmental demands are perceived as challenging, or as about to tax or exceed the individual’s resources to cope, thus endangering well-being and necessitating efforts by the individual to resolve the problem (Lazarus, 1995).

Advocates of the transactional theories recognise that individual differences will impact upon any stressful encounter. Different stimuli have varying characteristics which impact differently upon individuals. For instance the perceived ability of a person to cope with these stimuli can vary from person to person, as can perceptions of the demands of these stimuli and also perceptions of how one can meet those demands (Beehr & Bhagat, 1985).

Three important themes are embraced by transactional definitions (Holroyd & Lazarus, 1982; Newton, 1989). Stress is viewed as (a) a cognitive state which is dynamic in nature, (b) representing an imbalance or disruption in homeostasis, and (c) giving rise to a necessity to resolve that imbalance. Given these, it is clear then that stress resides in the perceived interplay between aspects of the individual or of the environment, rather than solely in aspects of each. Indeed, the stress process is viewed as an ongoing interaction between situations in which the individual strives to

maintain balance, including external demands and constraints, external supplies and supports, personal resources and internal needs and values (Cox & MacKay, 1981).

Transactional models place the phenomenon of stress firmly within the cognitions of the person, however these models imply complex relationships in the interactions between environmental variables and individual cognitions in addressing the issue of stress. Hence, theorists in this domain advocate that in order to determine the relationship between occupational stressors and well-being, individual variables and social/organisational variables should be studied together (Daniels & Guppy, 1994).

An example of a transactional theorist is Lazarus (1966, 1995). His transactional theoretical approach dominates the stress domain today. Lazarus began developing his ideas in the 1960s (Lazarus, 1966, 1995), and his views have had a major impact on the understanding of psychological stress (Brief & George, 1995). This is evidenced by the vast number of empirical studies that have evolved from Lazarus' work and support his stress paradigm (eg. Dewe, 1991; Dewe, Cox, & Ferguson, 1993; Folkman, 1982; Folkman, Lazarus, Gruen, & DeLongis, 1986a; Lazarus & Launier, 1978; Newton, 1989).

Contemporary theories of stress are transactional in nature (eg. Cox, 1978; Edwards, 1992; Lazarus, 1995; Schuler, 1982) and expand the work of Lazarus (1966;1995). Lazarus has developed a focus on work stress, although his work can be applied to stress in any living context. The transactional work of Lazarus is the focus of this section, however this is supplemented with work by proponents of his theoretical approach.

According to Lazarus (1995) stress is relational and involves some sort of transaction between the individual and the environment. He views the individual and the environment as being in a mutually reciprocal, dynamic, and bidirectional relationship. Lazarus' theory of stress identifies two components which are considered critical mediators of stressful person-environment relationships and their immediate and long-term outcomes, cognitive appraisal and coping (Lazarus, 1995).

Cognitive appraisal is the process through which an individual subjectively evaluates the meaning of a particular encounter with the environment and determines whether it is relevant to his or her well-being, and if so in what way (Lazarus, 1995). Parker and De Cotis (1983) describe it as being an awareness and acknowledgment that there is deviation from normal functioning in some way.

Two important interacting mechanisms are involved in cognitive appraisal. The first, primary appraisal, refers to the evaluation of whether the individual has anything at stake in this encounter and its relevance for well-being (Lazarus, 1995). Primary appraisal essentially asks the question of 'is this a stressful encounter?' (Cox, 1987). The individual considers whether or not there is potential benefit or harm to self-esteem, or whether the well-being of themselves or a loved one is at stake (Folkman et al., 1986a; Folkman et al., 1986b; Lazarus, 1966, 1995).

Secondary appraisal assesses what can be done to positively influence the situation, or increase the prospects for overcoming or preventing harm. At this point the individual evaluates available coping resources and strategies, such as altering the situation, accepting it as it is, seeking more information, or refraining from acting impulsively (Lazarus, 1995).

Personal agendas vary from person to person, and moment to moment, and often environments are ambiguous and complex. Individuals attend selectively and subjectively to what is happening, and therefore evaluate situations in diverse ways. As a result, people in the same environmental context have great variation in their appraisals. Individuals are constantly evaluating and re-evaluating what is happening around them, appraisal is not fixed but fluid (Lazarus, 1995).

The meaning of any encounter is shaped by the convergence of the appraisal processes (Lazarus, 1995). In response to primary and secondary appraisal coping is initiated. Lazarus purports that these processes are highly interdependent and exert influence on each other during any encounter between the individual and the environment.

Stress Outcomes

As major life events and chronic strains accumulate, a person's ability to readjust and cope with stress can be overwhelmed. The outcome of this is that the individual's vulnerability to physical or psychological disorders increases (Lazarus & Folkman, 1984). Indeed, it is widely documented in the literature that there are direct relationships between perceptions of the work environment and self-reports of mental and physical health (Parkes, 1990).

In the work context it is argued that some degree of stress is essential for work productivity (Melendez & Guzman, 1983, cited in Hamann et al., 1987). However,

Melendez and Guzman argue that when individuals are subject to stress, regardless of how much, and especially for prolonged periods of time, their productivity can decline. Over time this may lead to a stage of exhaustion and susceptibility to physical or mental illness.

Stress outcomes can be broadly categorised into three groups; psychological, physiological, or behavioural outcomes. Stressful circumstances can result in increased psychological complaints such as helplessness, anxiety, and depression, or mental illnesses. Physiological outcomes include headaches, insomnia, or muscle tension, just to name a few (Revicki et al., 1991). Behavioural outcomes of stress include smoking, alcohol consumption, exercise patterns, or dietary intake (Weiten, 1992).

Coping: Theories and Definitions

Another piece of the puzzle worth examining in the stress domain is the coping component of the stress process (Payne, Jick, & Burke, 1982). Despite the volume of research available (Glowinkowski & Cooper, 1985), and the relevance and importance of coping (Edwards, 1988), it is apparent that this part of the puzzle has not been resolved satisfactorily. As it presently stands, the coping literature has been described as diverse (Endler & Parker, 1990), and fraught with problems (Cohen, 1987) as it is difficult to organise (Edwards, 1988).

There are many differences in opinion about the nature of the coping process. This is not surprising given the complexity and diversity of potential stressors, and the numerous individual responses that could be utilised to combat them (Callan, 1993). The concept of coping has been described through a number of the different theoretical approaches. Coping has been described as a psychoanalytical process, a disposition, a trait or style, an episodic indicator, a set of situationally specific strategies, a series of stages, and a taxonomy of strategies (Cohen, 1987; Dewe et al., 1993; Edwards, 1988). The focus of this paper is work stress, therefore coping is defined in terms of the cognitive and behavioural responses to work or work-related encounters that impact upon an individual's abilities and resources (Dewe et al., 1993; Lazarus, 1995).

Within the occupational stress domain it is argued that coping has actually received relatively little attention in the literature (Dewe & Guest, 1990; Newton &

Keenan, 1985; Parasuramen & Cleek, 1984). In recent years however, how individuals cope with difficult or stressful transactions has been receiving considerably more attention. Several investigators have underscored the importance of understanding coping mechanisms as they argue that they can minimise the effects of stress and alleviate possible negative consequences (O'Driscoll & Cooper, 1994).

The majority of researchers in this area have based their research on the transactional stress model described by Lazarus and his colleagues (eg. Lazarus, 1966; Lazarus & Folkman, 1984; Lazarus, 1995). According to Lazarus (1995) coping is the effort a person makes to manage and/or resolve demands that tax or surpass the individual's personal resources. It is the cognitions and behaviours which serve to prevent, avoid, or control emotional distress, which result when an individual recognises a stressful encounter.

As a component of secondary appraisal, coping is concerned with the question of 'what can I do' (Lazarus, 1995). Although there are stable patterns, an individual's relationship with the environment is constantly changing, therefore coping is a dynamic process which is specific to the transaction and the stage of the stressful encounter (Callan, 1993; Lazarus, 1995). Appraisal leads to coping, which leads to re-appraisal and new information, and thus realignment of coping strategies where possible (Lazarus, 1995).

Individuals are constantly confronted with situations that challenge their ability to cope. This is a reality of everyday life as transactions with one's environment are an ongoing process. The key to the coping process is the awareness that there is some sort of deviation from normal functioning, and that there are challenges to an individual's well-being. This promotes the desire for resolution and thus creates the motivation and direction for coping attempts (Dewe et al., 1993; Lazarus, 1995).

There are two major functions of coping. The first involves efforts to deal with the problem that is causing distress, and involves removing the event or diminishing its impact. This is often referred to as problem-focused coping and includes cool, rational, deliberate attempts to resolve the problem, or aggressive efforts to resolve situations (Lazarus, 1995). Latack (1986) refers to problem-focused coping behaviour as control. Callan (1993) supports this view, arguing that individuals exert varying strategies in an attempt to gain control or mastery over the stressful situation. Folkman and Lazarus (1980) discovered that in situations that are

appraised as changeable, this is the coping approach most likely to be utilised. Problem-focused coping has been associated with an internal locus of control and social support (Parkes, 1986).

The second function of coping, called emotion-focused coping, involves efforts to regulate emotion and reduce negative feelings that arise in response to threat (Carver & Scheier, 1994; Folkman and Lazarus, 1980, 1985; Lazarus, 1995). Examples of emotion-focused coping include self-controlling, seeking social support, escape-avoidance, or accepting responsibility (Folkman and Lazarus, 1980).

In research it appears that there has been a theoretical and applied bias favouring the effectiveness of problem-focused coping. Active problem-focused coping is said to have a positive impact on well-being in stressful encounters however there is little empirical evidence to either discredit or support this bias (Beehr, Johnson, & Nieva, 1995). Emotion-focused coping is argued to be linked with reduced long-term levels of psychological well-being (Callan, 1993).

It is not unusual for individuals to experience both positive and negative emotions simultaneously in highly ambiguous situations (Folkman & Lazarus, 1985). At each stage of a stressful encounter the transactions can alter, therefore it is oversimplifying to treat an entire encounter as a single event, and assume that coping will be the same throughout (Carver & Scheier, 1994). The coping resources available often influences the coping strategies chosen by individuals (Hobfall, Dunahoo, Ben-Porath, & Monnier, 1994).

Coping Responses and Outcomes

Coping responses and outcomes have been extensively investigated (eg. Bolger, 1990; Guppy & Weatherstone, 1997; Shinn, Rosario, Morch, & Chestnut, 1984). Within this domain there appears to be an on-going debate as to whether coping responses vary across situations or are stable, aspects of personality.

Billings & Moos (1984) investigated how people coped with a single recent stressful transaction with the environment, and found that depression was related to such coping. They argue that the way in which an individual deals with one or more stressful event is representative of their general coping behaviours. This contradicts the views of Lazarus (1995) who argues that stressful interactions are dynamic, ever-changing processes, and that reactions and coping to such situations vary across

situations, depending on the subjective evaluation made at the time. It is likely that individuals have a tendency to behave in a particular way, and situational factors moderate this tendency.

Shinn et al. (1984) conducted research within work settings and found low efficacy in individual coping efforts within work environments. They suggest that this may be due to the inherent constraints in organisational contexts that limit possibilities for constructive action by individuals.

A coping response which has received attention in research is that of helplessness (eg. Guppy & Weatherstone, 1997). This is a paradoxical response strategy however, because it can also be argued to be an outcome. The researchers addressing helplessness have focused on the situational characteristics of stressful experiences. With this approach researchers study situations in which individuals have no control over the final outcome.

This approach operates on the assumption that individuals who find themselves repeatedly in uncontrollable situations experience what is known as helplessness. It is argued that individuals in these situations become increasingly less resistant in their coping efforts, and this finally results in demoralisation and depression. Thus, helplessness becomes a coping response and an outcome. In recent research further significant associations were found between mental health and such coping dimensions (Guppy & Weatherstone, 1997).

As can be expected, not all responses are effective, and this has also been considered in research. Researchers have investigated several dysfunctional responses and these include self-blame and wishful thinking (Bolger, 1990), escapism (Rohde, Lewinsohn, Tilson, & Seeley, 1990), overt efforts to deny the stressor's reality (Carver et al., 1993), self-distraction or mental disengagement, and even behavioural disengagement, or giving up on the goals with which the stressor is interfering (Carver, Scheier, & Weintraub, 1989). Such approaches to coping appear to be detrimental rather than effective, thus typically work against people (Folkman & Lazarus, 1985; Rohde et al., 1990).

In terms of coping outcomes, current theory and research indicates that coping processes mediate somatic health and psychological symptoms in relation to stressful transactions (Folkman et al., 1986a). With regard to a person's adaptational status, coping may adversely affect an individual's somatic health status via three pathways. Coping can influence the frequency, intensity, duration, and patterning of

neurochemical responses. It can also affect health negatively when it involves excessive use of injurious substances such as alcohol, drugs, and tobacco, or when it involves the person in activities of high risk to life and limb, and finally certain forms of coping can impair health by obstructing adaptive health/illness-related behaviour (Lazarus and Folkman, 1984).

Folkman et al. (1986a) found negative relationships between appraisal, coping, and somatic health status, suggesting that the more a person had at stake, and attempted to cope, the poorer their health was. Conversely it was found that a person's health status improved as they perceived more mastery and control over an encounter with the environment (Folkman et al., 1986a). In work environments it is argued that lack of effective stress management can result in significant decrements in psychological well-being, dissatisfaction, feelings of detachment, and reduced quality of work (O'Driscoll & Cooper, 1994).

It is purported that stress buffers can enhance a person's ability to readjust and therefore reduce the probability of the person developing a physical or psychological disorder. Stress buffers include problem-focused and emotion-focused coping strategies (Lazarus & Folkman, 1984), coping resources such as high self-esteem, a sense of control (Wheaton, 1982), mastery (Folkman et al., 1986a), and perceived social support (Cohen & Wills, 1985).

Moderators and Mediators of the Stress Process

Research suggests that there are a number of influential variables which impact upon a person's experience and the perception of whether or not a given transaction is perceived as stressful (Evans et al., 1987; Folkman et al., 1986b; Motowidlo et al., 1986; Parkes, 1989).

The variables act as moderators or mediators, and sometimes both. A variable that moderates a transaction in one instance may act as a mediator in another. The key variables which have been identified as being mediators and/or moderators in the stress process include individual differences such as personality (Evans et al., 1987; Folkman et al., 1986b), social support (Daniels & Guppy, 1994), commitment to one's work-role (Burke & Reitzes, 1991), worker control (Spector, 1986), and locus of control (Parkes, 1989). In the work environment, reports are regularly produced which argue that stress and strain from job-related factors are moderated by

organisational, task, and individual characteristics (Smith & Tisak, 1993; Spector, 1986).

As moderators of the stress process it is generally considered that aspects of these factors can have a buffering effect on stressful experiences. However, the findings are mixed (eg., Thoits, 1987; Turner & Noh, 1983). In fact it is argued that there may be differences in the buffering effect which influences and helps explain differential vulnerability, depending on the status groups being compared, the types of stressors being assessed, or both (Thoits, 1991).

Of the above variables, the key variables highlighted in the literature influencing the stress process which are pertinent to the present study include the individual difference of personality and social support. These are addressed below.

Personality

As a determinant of the nature and magnitude of work-stress responses, individual differences play a major role (Parkes, 1990). Several types of individual differences have been found to be important, either as mediators or as moderators, of which a key difference is personality (eg. Evans et al, 1987).

Personality characteristics have been found to have a large influence on whether a transaction is considered stressful. Aside from stable traits, personality differences are also argued to include one's values, commitments, goals, and beliefs about one's self and the world (Evans et al., 1987; Folkman et al., 1986b).

Personality has also been a focus in research investigating how coping may be related to outcomes. For example, Wheaton (1983, cited in Folkman et al., 1986a) focused on fatalism and inflexibility, and Kobasa (1979) focused on hardiness. Such approaches operate under the assumption that an individual's personality characteristics will dispose them to perceive situations differently, and cope in certain ways. However, there is limited evidence which suggests that coping processes are actually influenced by personality characteristics (Cohen & Lazarus, 1973; Lazarus, 1995).

Other researchers have considered the contributions and impact of coping responses and personality traits on psychological well-being. Pearlin and Schooler (1978) illustrated this approach in their research which evaluated personality characteristics, namely mastery, self-esteem, and self-denigration, and the methods individuals utilised to cope with and remove distress with chronic role strains. The

role strains investigated pertained to four areas: marriage, parenting, household economics, and occupation.

Pearlin and Schooler found that personality characteristics and coping responses had different effects, depending on the nature of the stressful conditions. They found personality characteristics to be more useful in transactions such as found at work, where there was limited control and individuals were less likely to be able to exert some response action. In the areas such as marriage where an individual's efforts were more likely to make a difference, coping responses were more helpful. In this situation individuals were able to be more proactive as organisational boundaries and autonomy issues did not restrain them.

The coping resources available often influence the coping strategies chosen by individuals. Various aspects of one's self or personality provides a person with resources which can assist them in handling adverse transactions with the environment. In that respect they are internal coping resources (Hobfoll et al., 1994).

Social Support

Social support can be defined as a flow of communication between two or more people that involves emotional concern, caring, understanding information, and/or factual help (Winnubst, de Jong, & Schabracq, 1996). Research indicates that social support acts as a moderator in the stress process, and appears to be able to buffer the impact of certain work characteristics, for example work pressure, thus often helping to prevent, reduce, or cure stress reactions (Boumans & Landeweerd, 1992).

Research on the effects of social support appears to be dominated by two hypotheses (Henderson, 1984). The first hypothesis argues that there is a direct effect of social support upon well-being. The second hypothesis purports that social support interacts with stressors, and through this interaction social support buffers the effects of stressors upon well-being. This is known as the buffering hypothesis. It is argued (Daniels & Guppy, 1994) however that this hypothesis may be overly simplistic because it fails to acknowledge the influence cognitive variables may exert on a stressful experience.

Research suggests that the final experiences of stressful encounters are greatly influenced by the social support a person receives, or perceives, and his/her coping strategies (Cohn & Wills, 1985). Without social support of some description

individuals may develop feelings of inferiority, alienation, and loneliness (Winnubst, 1993). Interestingly, in relation to coping Boumans and Landeweerd (1992) found a main effect, rather than a moderating or buffer effect between the role of social support from the work situation and coping.

Measurement of Stress and Coping

Assessment of work stress and coping strategies raises a number of measurement issues. A primary concern pertains to the ability of current measures to elicit information on the constructs and the situations they are purporting to measure (Jackson & Schuler, 1985).

The issues identified include the development of scale items which are specific to the transactions being measured (DeFrank, 1988, cited in Dewe 1991), and that are relevant given current social and economic change (Brief & Ateih, 1987). Also consideration needs to be given to the way scales are worded (Kasl, 1987) and the composition of positive, negative and neutral statements (DeFrank, 1988, cited in Dewe 1991). Measurement of the stress process must also acknowledge the dynamic and ongoing nature of the stress process, acknowledging that it is not a static state (Bailey & Bhagat, 1987).

The measurement of coping is argued to be difficult because there is an on-going debate regarding whether it should be measured as a process or a style. Considering it as a process means measuring a changing pattern of reactions across the course of a stressful encounter. Considering coping as a style means measuring it as an aspect of personality which is relatively stable over time and across situations (Lazarus, 1995). Lazarus purports that both of these approaches ask different questions and elicit valuable information. The approach utilised should therefore depend on the situation being considered and the information required.

In terms of actually asking people how they cope, it is advocated that the utilisation of self-report techniques to develop coping checklists is argued to be, and is accepted as, a method by which important information can be obtained (Cohen, 1987). The Occupational Stress Inventory (OSI), developed by Osipow and Spokane (1992), is an example of a self-report inventory developed for assessing occupational stress, personal strain, and coping resources. This questionnaire has been empirically validated and is often utilised in the assessment of stress (Dorn, 1991). The OSI is

quick to administer and score, and provides useful information regarding occupational stress, strain, and coping techniques. Dorn (1991) argues that it is a useful tool for assessing stress in the workplace, and also for teaching individuals about the potential impact occupational stress can have on their personal well-being.

Musicians and Stress

Until recently, the majority of the research linking stress and occupational health has been conducted with high risk occupations such as air traffic controllers (Cooper & Wills, 1989; Wills & Cooper, 1984). It has been shown more recently however that work-related stress is also exacerbated in professions requiring constant contact and involvement with people, such as musicians (Revicki et al., 1991).

Research concerning musicians has been very limited, however the majority of the research that has been conducted has focused on musicians and stress (eg. Cooper & Wills, 1989; Haman et al., 1987; Steptoe, 1989; Sternbach, 1995). Interestingly though, this research has predominantly focused on performing musicians. Research concerning musicians who teach, or combine performing and teaching is somewhat negligible. Thus, the following review of the literature is based primarily on musicians who are performers.

Recent evidence suggests that there is widespread stress and stress-related illness among performing musicians. Stress is argued to be a major factor in the lives of performing musicians and the problems they experience. Sternbach (1995) does argue however that all musicians, both performers and teachers, face similar concerns. Unfortunately, the literature to back up this assertion regarding teachers is negligible.

Associating musicians with the term occupational stress may surprise some, as they are generally regarded as having a degree of job satisfaction (Sternbach, 1995). This however, is a broad assumption as one can be satisfied but also experience stress (Lazarus, 1995). Regardless, performing musicians are seen to be working for themselves, when and where they wish, and enjoying a glamorous life with opportunities for self-expression. People thus assume that musicians would not be in the category of those experiencing high levels of occupational stress (Sternbach, 1995). It could be that such assumptions illustrate the limited research conducted in this area.

The professional performing musician working in the popular music domain appears to be particularly subject to occupational stress. This is highlighted by reports that appear in the media about premature deaths or drug abuse issues of popular musicians. Popular musicians contrast their classical counterparts in that their work brings them into contact with the “show business” world and related issues (Cooper & Wills, 1989). There is some literature on classical musicians (Steptoe, 1989; Sternbach, 1995) whilst minimal work has been conducted with popular musicians, despite the assertions regarding the issues popular musicians face.

In reality there are many musicians who are not stress resistant and research suggests that there are a number of elements which contribute to high stress levels among musicians (Cooper & Wills, 1989). In combination with stressors particular to the type of musician, it is argued that these stressors create a highly stressful environment to work in (Sternbach, 1995). These are addressed below.

Stressors

There are many stressors in the career of performing musicians (Steptoe, 1989), most of which are argued to be (Cooper & Wills, 1989) unique to them as a profession, and largely promoted by their lifestyles. The stressors that musicians face include separation from family (often leading to pressure on personal relationships), irregular hours, monotony of rehearsals, travelling, workload, injuries, uncertainty about regular employment, professional competition with colleagues, poor financial rewards, pressure to be sociable, back-stabbing among colleagues, stage fright and related anxieties, working under constant scrutiny of others, and the expectation of continuous perfect performances (Cooper & Wills, 1989; Sternbach, 1995).

In terms of work situations, research has found that many non-orchestral musicians find the pressures of being their own boss, and not having the shelter of being part of larger organisation very stressful. It creates a situation of constant instability and uncertainty (Cooper & Wills, 1989).

Workload is an issue with musicians as music is demanding physical and mental work. They must maintain the expected high standards of playing and they may play solos for long periods, such as within an orchestra, in which they have complete responsibility for the music they produce. Success or failure depends on them. For example opera musicians may play an opera 20 times a season, and this may occur for 25 or 30 years (Sternbach, 1995). Even when work is sporadic work

overload is an issue because when it occurs it is often intensive which leads to a lack of sleep, which then leads on to other stress related issues (Sternbach).

Time pressures, deadlines, changes, and nonstandardised hours are a reality of a musician's life. Such stressors can affect them both directly through physical outcomes, and indirectly through emotional wear and tear (Sternbach).

Performing musicians are constantly under pressure to maintain the highest levels of musical performance throughout their careers. They operate on the knowledge that they are only as good as their last gig - they have to constantly keep their standards up, as lowering standards can cost musicians work. However, even when performing well there are uncertainties regarding their future as there is always the chance that someone younger, better, or with greater appeal may come along (Sternbach).

The compensation performing musicians receive covers only their time on the job. It does not compensate for the hours of preparation behind the scenes, the costs of repair and maintenance, travel, or training for example. Compensation can vary from good to poor, with estimations that there are more at the lower end of the spectrum (Sternbach).

Orchestral musicians are in a paradoxical position. They may get well paid, depending on the orchestra they are involved in, however much of their work is routine and mundane (Steptoe, 1989). These classical musicians need to be able to be flexible and be able to change to meet the needs of new conductors, who can differ in terms of styles, artistic demands, and personality (Sternbach, 1995). Research suggests that as a group, orchestral musicians have a very low authority over decisions, that is they have no control over what is played, and very limited flexibility in how to play the music (Steptoe, 1989).

In their research with popular musicians Cooper and Wills (1989) found that performance anxiety is a major problem for performing artists. Aside from performance, often rehearsals can be highly-charged, anxiety ridden experiences (Cooper & Wills). Research suggests that cognitive and physiological factors are involved in performance anxiety. It was found that anxiety led to upset stomachs, difficulties in breathing, shaking, sweating, heavy drinking, extreme depression, tachycardia, nervous complaints, and ulcers (Steptoe, 1989).

Stage fright is also argued to be an important stressor in a musician's career. This stressor can seriously reduce the enjoyment musicians experience when

performing in front of an audience (Steptoe, 1989). Most musicians suffer from three types of stage fright: anticipatory stage fright also known as performance anxiety, stage fright during performance, and post-performance stage fright. How stage fright affects a musician varies across individuals. In its milder form it can enhance a performance, at its extreme it can be quite detrimental to a performance. There can be behavioural, physiological, and psychological manifestations of stage fright which can include trembling, nausea, palpitations, memory blanks, blackouts, dizziness, or worrying about outcomes (Steptoe, 1989; Sternbach, 1995).

Outcomes

Stress outcomes musicians experience may be physiological, psychological, or behavioural in nature. Injuries are fairly common, and a musician does not have to have a big injury to stop working. Overuse and repetitive motion injuries are common. Most people can still work with a strained finger, a bruised lip, or a sore throat, but a pianist, trumpet player, or singer can not work. Often due to their specialisation they are not able to do anything else at work (Sternbach, 1995).

For example, many careers have been ended with the onset of focal dystonia. Tinnitus and hearing loss affect musicians in many domains, from rock musicians to symphony players. Depression is often detected in injured musicians because musicians' identities are closely related to their art. Thus psychological problems are not uncommon among musicians (Sternbach, 1995).

Fishbein, Middlestadt, Ottati, Straus, and Ellis (1985, cited in Sternbach, 1995) found in their survey on health problems among classical musicians that 82% reported experiencing a minimum of one medical problem. Of these, 76% had levels of pain which affected their performance, and almost 30% of those were using medication to help them through performances.

Broadly speaking, many musicians' stress-related health problems translate into the same problems that individuals in other industries face; injuries, accidents, lost work hours, and disability (Sternbach, 1995). In many business environments however, individuals have the support of Employee Assistance Programmes (EAP's) to help them manage their stress (Cummings & Worley, 1993). Musicians do not have any corresponding services (Sternbach, 1995).

Sternbach (1995) argues that at some point in their lives musicians' question the career decision they have made, and have to deal with the frustrations that accompany their choice. Many learn to deal with these choices in effective ways, for example through taking on other work to supplement income. However those that don't are likely to be at high risk for psychological complaints and substance abuse problems.

Although overall the findings suggest that the lives of musicians are stressful, the literature also suggests that some aspects of the careers of many musicians may at the same time be both fulfilling and stressful. For example, travelling may be an interesting aspect, which can also be stressful. Also, many do enjoy running their own business and not having to answer to others (Steptoe, 1989).

Musicians and Coping

The research conducted on how musicians cope with the stressors they face is very limited (Haman et al., 1987). The only major research conducted in this area was done by Steptoe (1989). Steptoe attempted to characterise the behavioural coping responses of musicians. It was found that prior to an important performance 38% of musicians engaged in deep-breathing exercises, 28% tried to distract themselves, and 23% used muscle relaxation techniques. Further, 22% used alcohol consumption as a coping mechanism, and 12% used sedatives.

A broad range of treatment modalities is presently available for the psychological problems that musicians present with, however mental health professional need to be trained more in short-term approaches which can help musicians cope successfully with stressors they face (Sternbach, 1995). This occupational group needs to be made more aware of the risks they face in their line of work. Young musicians need to be educated more extensively, and musicians receiving treatment of any sort should be educated in stress management skills (Sternbach).

Recent years indicate the emergence of music medicine, a new area of medicine which recognises the problems of musicians. However, at present it focuses predominantly on physical problems with a limited focus on the mental health problems associated with this profession (Sternbach, 1995).

Research Questions

The literature suggests that performing musicians face a great number of stressors within their profession (Steptoe, 1989). The literature is not extensive however, therefore ample opportunity exists for further research into the lifestyles of musicians, stressors they face, and the methods utilised for coping with such stressors (Sternbach, 1995). Research is warranted which focuses on music teachers and performing musicians as the literature is limited in this area. Thus, the research questions for the present study are:

6. What are the stress, strain, and coping resource levels of musicians?
7. Are there differences among musicians in terms of stress, strain and coping depending upon how they structure music into their lives?
8. Are there differences in stress, strain, and coping resources among musicians who play different instruments?
9. Are there significant demographic differences in stress, strain, and coping resources levels of musicians?
10. Are there significant relationships between levels of stress, strain, and coping resources and career commitment and/or recreational commitment?

CHAPTER FOUR: PERSONALITY

Personality Definitions

Most people have an intuitive understanding of the definition of personality. However it is difficult to provide a finite definition of this multifaceted term. Many theorists in this domain hold differing views, and as a result there is no universally accepted definition of this complex construct (Ewen, 1988). In fact, numerous definitions of personality have emerged, and such definitions are not necessarily right or wrong, but offer differing utility in directing us to important areas of understanding (Pervin, 1993).

The study of personality involves the assessment, description, analysis, and prediction of individual differences in ordered patterns of behavioural and mental functioning. The area of personality encompasses a wide range of variables. The variables studied do not only include affective characteristics such as emotion, temperament, character, and stylistic traits. Personality research also includes the study of specific aptitudes, cognitive variables such as achievement and intelligence, and different psychomotor abilities, physical dexterity's and mannerisms (Aiken, 1993).

Over the years many theories of personality have evolved (eg. Cattell, 1990; Eysenck, 1990; Mischel, 1990). These theories have developed within many different psychological paradigms including psychodynamic perspectives (eg. Freud, 1940, cited in Weiten, 1992; Jung, 1933), behavioural perspectives (eg. Bandura, 1986; Mischel, 1984), humanistic perspectives (eg. Rogers, 1980), and biological perspectives (eg. Eysenck, 1967, 1990). Each perspective offers differing approaches to understanding personality and the structure of personality (Weiten, 1992).

Some definitions of personality emphasise mental processes such as private core motives, attitudes, interests, beliefs, fantasies, and cognitive coping styles (Aiken, 1993; Lester, 1995). Other theorists (eg., Ewen, 1988) argue that personality must be studied from the perspective of it's interpersonal manifestations. Behavioural definitions (Aiken, 1993) of personality emphasise the characteristics of a person which are visible to other people and make an impression on them. This includes public and social stimulus, or organised behavioural characteristics. According to this view one highlights the visible and social aspects of the way a person appears to

others such as aggressive, friendly, shy, or immature. This approach overlooks two very important considerations however. Firstly, personality may have aspects that are not visible, and secondly, personality may exist in the absence of other people (Ewen, 1988).

The most common approach to defining personality is in terms of qualities or characteristics within an individual. In line with this approach personality can be defined as the sum total of physical, mental, emotional, and social qualities of an individual, which make that person unique. This includes inborn and acquired abilities, attitudes, traits, and temperaments, and other qualities that comprise a person's individuality (Aiken, 1993). Whilst these definitions typically include the mental, physical, emotional, and social aspects of a person, some definitions emphasise the uniqueness of human qualities, while others emphasise the characteristics that all human beings have in common (Ewen, 1988).

Regardless of differing definitions of personality it is commonly acknowledged that personality is a relatively stable construct. It is purported that it can change over long periods of time however, and an individual may behave differently in different situations. (Ewen, 1988).

Although a consensual taxonomy of personality traits is not in existence, literature over the previous two decades has moved toward a convergence of views regarding the structure of personality (Tokar, Fischer, & Subich, 1998). In recent years trait theories have begun to pre-dominate in the area of personality structure theory and research, especially when measuring personality in occupational settings (Barrick & Mount, 1991; McCrae & Costa, 1985). Thus, this paper will focus on trait approaches to personality, but acknowledges that other approaches exist.

Trait Theories

Trait theories are among the dominant theories of personality (Pervin, 1990, 1993). Trait theorists operate on the assumption that people possess broad dispositions, referred to as traits, which cause individuals to think and behave in particular ways (Pervin, 1993). Traits are thought to be relatively stable individual differences, which are postulated to have particular consistent influences on a person's thoughts, behaviours, and feelings (Gable & Nezlek, 1998; Pervin, 1993). The major influences in trait theory include Allport (Allport & Allport, 1921), Cattell

(1943, 1946), and Eysenck (1967,1990).

As a group, these trait theorists purport that individuals can be described in terms of the probability of them responding to situations in specific ways. For example, an individual may be described in terms of the likelihood of them being assertive or friendly. Individuals may be described as being high on these traits when they display the tendency to behave in these ways. Individuals would be described as low on such traits if they displayed a lesser tendency to behave in ways related to particular traits. Although these theorists share the viewpoint that the fundamental building blocks of personality are traits, there are differences in their views regarding the use of factor analysis to identify the traits, and the number of base traits that make up the human personality (Pervin, 1993). Regardless, Allport, Eynsenck, and Cattell are argued to be representative trait theorists as they share an emphasis on individual differences in responding to given situations (Pervin).

According to Gordon Allport (Allport & Allport, 1921), traits are the fundamental building blocks of personality. Allport asserts that traits represent generalised personality dispositions, and that these account for consistencies in individual functioning across situations and over time. Allport defines traits by the properties of frequency, intensity and range of situations. For example, a very dominant individual would frequently be very dominant across many different situations.

Allport purports that traits have varying degrees of significance and generality, and distinguishes between cardinal traits, central traits, and secondary dispositions. A cardinal trait is a pervasive disposition, which affects nearly all behaviours in all situations. He asserts that people generally have very few, and maybe no, cardinal traits. Central traits are dispositions expressed in more limited situations than cardinal traits, such as kindness and assertiveness. Secondary dispositions are the least consistent and generalisable (Pervin, 1993).

Eysenck (1967) differs from Allport in that although he supports trait theory, he places great emphasis on the need to develop measures to adequately assess personality traits, the need to develop testable theories, and the necessity of establishing the biological basis of traits (Eysenck, 1967, 1990). Factor analysis of personality variables was the basis for Eysenck's emphasis on trait classification and measurement. Through utilising factor analysis, Eysenck argued that the basic dimensions that underlie personality factors could be determined. These basic

dimensions he refers to as types.

In early research Eysenck identified two basic dimensions in personality, introversion-extraversion and neuroticism. Later a third dimension was added, which was termed psychoticism. These dimensions, especially the first two have gained considerable support in research (Digman, 1990; Pervin, 1993; Tupes & Christal, 1961).

Cattell (1943, 1990) also proposes that the basic structural elements in personality are traits. Cattell distinguishes between traits on two main levels. The first relates to those traits which capture the major stable elements of personality, and the second involves traits related to observable behaviour. In the first level Cattell refers to ability traits, temperament traits, and dynamic traits. Traits relating to effective functioning, namely skills and abilities are ability traits. Temperament traits are those which relate to the emotional life of an individual and the quality of behaviour.

At the second level Cattell (1943) refers to surface traits and source traits. Surface traits are expressed behavioural associations, that appear to work together, giving the impression of being an overall dimension of personality, but in fact do not always do so. Source traits express associations among behaviours which vary together. These, Cattell argues, form an independent dimension of personality. He views source traits as being the fundamental elements making up personality.

Cattell asserts that there are three primary sources of data; life record data, questionnaire data, and objective test data. Cattell originally began working with life record data, and discovered that most aspects of personality could be accounted for by 15 factors. He then assessed questionnaire data, through the extensive use of factor analysis, to investigate whether these findings were consistent across the types of data. Through his work, Cattell developed a fairly complex taxonomy of individual differences which consisted of 16 primary factors and 8 second-order derivatives. The outcome of his research became known the Sixteen Personality Factor Questionnaire (16PF). Cattell (1943, 1946) was one of the earliest researchers to attempt to systematically organise the taxonomy of personality. In the area of factor analysis techniques, Cattell has been a major developmental force (Pervin, 1993).

It is clear that although these predominant trait theorists assert that the human personality is based on fundamental building blocks, there are differences of opinion in how to determine what the fundamental traits are that make up the human

personality. As these approaches have developed over the years, the various trait perspectives have converged on a five-factor model of personality (Pervin, 1993).

Historical Development of the 5-Factor Model of Personality Theory

The development of the 5-factor model of personality began with analyses of the work of Cattell (1943, 1946). However, Cattell's results were not successfully replicated by other researchers, namely Fiske (1949), and Tupes (1957, cited in Digman, 1990). Overall though, it was found that the data could quite adequately be accounted for by a 5-factor model which had been previously suggested by McDougall (1932).

Work by Tupes and Christal (1961, cited in Digman, 1990) produced results which agreed with those of Fiske (1949) and Tupes (1957, cited in Digman, 1990), providing good support for the five factors. They were then called Surgency, Agreeableness, Dependability, Emotional Stability, and Culture. Unfortunately the work by Tupes and Christal (1961, cited in Digman, 1990) remained unknown to virtually all as it was published in an obscure Air Force technical report.

Norman (1963), a researcher who was aware of the work by Tupes and Christal (1961, cited in Digman, 1990), replicated their findings in further research, as did Borgatta (1964) and Smith (1967, cited in Digman, 1990). However, during this time it was actually the views of Cattell (1943) and Eysenck (1967) which dominated the personality structure literature (Digman, 1990).

Thus, more than 20 years ago, not one, but five competent and independent researchers successfully analysed personality attributes and all reached the same general conclusion: that five superordinate constructs could be utilised to adequately describe the personality domain (Digman, 1990).

The ensuing research in the personality domain did not follow up these superordinate dimensions however. Instead, trait research (Mischel, 1968), and the situational impact on behaviour research (Darley & Latane, 1968) became prevalent (Digman, 1990), and a person-situation controversy began (Pervin, 1993).

Trait theory was criticised for its focus on the stable and enduring properties of an individual. Critics of trait theory argue that from situation to situation behaviour is more variable than trait theorists acknowledge, and as a result behaviour is very difficult to predict (Mischel, 1968). Such theorists emphasise the importance of

situations and the impact of situations on behaviour (Pervin, 1993).

Longitudinal research, for example McCrae and Costa (1990), suggests that despite the changes people face in their lives, such as marriage, their basic personality will not change. Cross-situational stability is somewhat more complex. Trait psychologists argue that it is incorrect to consider behaviour in one situation as being representative of a stable trait. Trait proponents argue for sampling over many situations, which is why they advocate the use of extensive questionnaires, such as the NEO PI-R (Costa & McCrae, 1992) which samples behaviour in a wide range of settings. The conclusions drawn in this debate depend on the perspective of those making the conclusions. There is evidence for cross-situational consistency and cross-situational variability. Both have merits because people are the same across situations to some extent, but they can also be different (Pervin, 1993).

During the 80's whilst this on-going debate continued, Goldberg (1981, cited in Digman, 1990) re-ignited the 5-factor research, asserting that it could be argued that any model attempting to structure personality must, at some level, encompass something along the lines of those five dimensions. Amelang and Borkenau (1982), working in Europe unaware of the five-factor studies in the America, also conducted an important study which provided empirical support for the five-factor model. Later studies have replicated these results (Digman, 1990).

Recent Literature Developments

The views of personality psychologists, regarding the structure and concepts of personality, have gradually changed over the last ten years. Generally, researchers now agree that a useful and meaningful taxonomy for classifying personality attributes is through the five robust factors of personality highlighted in previous research (eg. Amelang & Borkenau, 1982; Fiske, 1949; Tupes, 1957, cited in Digman, 1990; Tupes & Christal, 1961, cited in Digman, 1990; Costa & McCrae, 1986; Norman, 1963). These are commonly known as the "Big Five" and are argued to describe clusters of traits (Digman, 1990; Tokar et al., 1998).

It has become apparent that all five dimensions can be found in children, college students, and older adults. The five dimensions all apply to both men and women, and cross culturally. The five dimensions are also apparent in self-report and observer rating questionnaires (Costa & McCrae, 1986).

It is now argued that the five-factor approach has important implications for personality psychology. It demonstrates that personality is built upon five broad encompassing dimensions which provide a meaningful framework for analysing and assessing individual trait differences (Barrick & Mount, 1991). Proponents of the five factor approach suggest that it is a useful tool in vocational guidance and occupational situations (Pervin, 1993).

Although research has reached general agreement on the number of dimensions, there are still some disputes with respect to their meaning (Barrick & Mount, 1991). There is general consensus that the first factor in the Big Five is Eysenck's dimension of Extraversion/Introversion. This dimension is usually referred to as Extraversion or Surgency and includes the traits of being sociable, gregarious, assertive, talkative, and active (Botwin & Buss, 1989; John, 1989; McCrae & Costa, 1985).

The second dimension of the Big Five has been interpreted as Emotional Stability, Stability, Emotionality, or Neuroticism (John, 1989; McCrae & Costa, 1985; Noller, Law, & Comrey, 1987). Traits frequently associated with this dimension include being anxious, depressed, angry, embarrassed, emotional, worried, and insecure. In combination Emotional Stability and Extraversion represent Eysenck's original "Big Two," first delineated over 40 years ago (Eysenck, 1967).

Agreeableness or Likability are generally the interpretations given to the third dimension (John, 1989; McCrae & Costa, 1985; Noller et al., 1987). This dimension is argued to encompass the more benevolent aspects of people including altruism, nurturance, caring, emotional support, and being courteous, flexible, good-natured, trusting, cooperative, forgiving, and tolerant (Barrick & Mount, 1991; Digman, 1990).

The fourth dimension is generally referred to as Conscientiousness or Conscience (John, 1989; McCrae & Costa, 1985; Noller et al., 1987) but it has also been called Conformity or Dependability (Hogan, 1983, cited in Digman, 1990), and Will to Achieve or Will (Digman, 1989). There has been dispute over the essence of this dimension, as is apparent from the disparity in the labels (Digman, 1990). It is argued by a number of researchers (eg. Botwin & Buss, 1989; John, 1989) that Conscientiousness reflects traits of dependability including being careful, thorough, responsible, organised, and planful. Other researchers also include the volitional variables of hard-working, achievement-oriented, and persevering. Evidence suggests that in defining this dimension, these volitional variables should be included (Costa

& McCrae, 1988; Digman & Inouye, 1986; McCrae & Costa, 1985, 1987).

The fifth and final dimension has been given a number of interpretations including Culture (Fiske, 1949; Tupes, 1957; Tupes and Christal, 1961), Intellect or Intelligence (John 1989; Peabody & Goldberg, 1989), or Openness to Experience (McCrae & Costa, 1985). It is purported by Digman (1990) that this dimension is likely to include all of these interpretations. Being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive are traits which are commonly associated with this dimension (Barrick & Mount, 1991).

McCrae and John (1992) purport that the five factors are an empirical fact. Ozer and Reise (1994) support this, asserting that the five-factor system offers the hope of accurately locating personality dispositions. Although the evidence in support of the Big Five is often contended, to date the model is the most comprehensive and parsimonious available for personality assessment (Goldberg & Saucier, 1995).

Measuring the Big Five

Costa and McCrae (1985, 1989) have developed a questionnaire, the NEO Personality Inventory (NEO-PI), in order to operationalise the five-factor model of personality. The five-factors delineate the most fundamental dimensions underlying the traits in psychological questionnaires and languages (Costa & McCrae, 1992). The more recent version of the NEO is the revised NEO (NEO PI-R).

In developing the NEO PI-R, Costa and McCrae (1985) have demonstrated the ubiquitous nature of the Big Five. The aim was for it to be representative of the structure of traits which have been developed and researched over the previous forty years (Digman, 1990). Currently, the NEO PI-R is the only tool developed solely for this purpose (Costa & McCrae, 1989).

In the NEO PI-R Costa and McCrae (1985, 1989) refer to the five dimensions as Extroversion, Neuroticism, Openness to Experience, Conscientiousness, and Agreeableness. Each dimension of the NEO PI-R consists of six, more specific scales, that measure various traits of the given dimension (Costa & McCrae, 1992). The NEO PI-R is particularly useful in highlighting an individual's strengths and weaknesses because it provides a very comprehensive view and assessment of personality (McCrae & Costa, 1986).

Bradshaw (1997) examined whether or not NEO PI-R profiles might be

influenced and subsequently biased through impression management by subjects. The findings suggest that there are conditions which create a strong motivation for managing one's impression, such as social desirability needs, and that these could lead to slightly biased profiles. It was also found though that this bias had minimal effect on the over-all profiles. However, Topping and O'Gorman (1997) conducted research with university students and found that deliberate attempts to fake can seriously compromise the validity of the NEO PI-R or other self-report tests. This is consistent with the popular view of self-report tests.

Self-reports do provide useful information however, and have been proven to be useful and valid measures of personality. They provide only one perspective though. One of the unique features of the NEO PI-R however, is that a parallel form has been developed for obtaining observer ratings. A more accurate picture of a person's personality can be formed through utilising the observer form for ratings. Further, this is argued to promote easier detection of faking in the self-report version of the inventory (McCrae & Costa, 1989).

Research suggests that in utilising the NEO PI-R the five dimensions of the five-factor model are measurable with impressive validity and high reliability. In conjunction, these dimensions provide a valuable answer to the issue of personality structure (Digman, 1990).

Musicians and Personality

The literature investigating personality differences among musicians reflects the literature assessing musicians across other domains – it is limited and fragmented. The difference with the personality research however, is that focus has been given to music teachers (eg. Michael, Barth, & Kaiser, 1961, cited in Kemp, 1982; Kruegger, 1974, cited in Kemp, 1982) as a group. This is in contrast to the career and stress domains in which research has focused primarily on performing musicians. Unfortunately this research was conducted many years ago, thus its relevance to today's environment could be questioned.

It is argued that characteristic profiles are demonstrated by individuals pursuing different disciplines (Cattell, Eber, & Tatsuoka, 1970; Saville & Blinkhorn, 1976, cited in Kemp, 1982). In terms of musicians, the characteristic profiles for performers and teachers were investigated by Kemp (1982). Kemp (1982), using seven primary

factors of Cattell's (1946) 16PF questionnaire, conducted personality research with student performers and student teachers. Overall, it was found that student performers, when compared to a group of student teachers, displayed lower levels of extraversion, realism, and toughmindedness. In discussing these results, Kemp purports that the lower levels on these personality variables may be because student performers have spent long periods of solitary confinement in practice rooms concentrating on their own musical development. As a result they may find it difficult to understand and develop the needs and interests of others.

Performing musicians are argued to be quite different from music teachers in personality variables. They have been rendered self-sufficient and detached from others by their characteristic rich, colourful, and imaginative inner mental life. On the whole, it is argued that these musicians are not well-suited to teaching others. However, for individuals who find it difficult to adjust to the demands of performing, teaching music may be the ideal and only pursuit (Kemp, 1982).

The research conducted by Kemp supports earlier research with a British sample which indicated that student music teachers, when compared to other music students, could be identified by their distinguishable traits of extraversion and realism (Kemp, 1979, cited in Kemp, 1982). Other early research with American samples suggested that experienced and successful music teachers were controlled, dependent, and well-adjusted (Michael et al., 1961, cited in Kemp, 1982; Kruegger, 1974, cited in Kemp, 1982).

Research focusing primarily on performing musicians and personality was conducted by Cooper and Wills (1989). Using the Eysenck Personality Questionnaire Cooper and Wills found that professional performing musicians, when compared to male adult norms, had elevated levels of neuroticism and psychoticism scores. The high levels of neuroticism were found to be comparable to those found by Kemp (1981) with classical musicians. The researchers assert that it may be the stresses associated with the musician's profession that gives rise to elevated anxiety.

Variance in personality has been found across musicians which has been attributed to the kinds of instrument they play (Kemp, 1981). In Cooper and Wills' (1989) research it was found that trumpeters had the lowest neuroticism scores, whilst guitarists had the highest scores on neuroticism and psychoticism. The samples however were small, therefore no conclusions were drawn as to why this could be.

Research Questions

Given the minimal literature in this area, there is large scope for extending knowledge. Especially given that the majority of the research was conducted a number of years ago, and recent research is lacking. The present study intends to expand this limited research in an exploratory sense, and assesses the personality profiles of the musicians across six role groups. The study will also assess possible links between the career commitment, occupational stress, personal strain, coping resources, and the personality traits of musicians. The possibility of personality variables as antecedents in levels of these constructs will also be considered. Given this, the personality research questions for the present study are:

11. What are the personality profiles of the sample of musicians?
12. Are there personality differences among musicians depending on how they structure music into their lives?
13. Are there personality differences among musicians who play different instruments?
14. Are there significant demographic differences in the personality of musicians?
15. Are there significant relationships between personality, levels of stress, strain and coping, and career commitment and/or recreational commitment of musicians?
16. Is personality a predictor in levels of career commitment, recreational commitment, occupational stress, personal strain, and/or coping resources?

CHAPTER FIVE: METHODOLOGY

The present study utilised the survey method of research. This had the advantages of being completed at the respondent's convenience and avoiding interviewer biases. It is an appropriate method for collecting sensitive information. Participants can more readily believe that responses are anonymous when the information is not being recorded by an interviewer (Schweigert, 1994).

Sample

The musicians involved in the present study were sampled from two organisations; the Music Education Centre and the Auckland Symphony Orchestra. The Directors of each were approached and provided with a research proposal which detailed the rationale and objectives of the present study. The Music Education Centre and the Auckland Symphony Orchestra were selected as the sample population because it was thought that these two groups would provide a cross-section of the different groups of musicians.

The sample population consisted of 155 musicians. Every teacher at the Music Education Centre and all musicians within the Auckland Symphony Orchestra were invited to participate. The final number of participants who responded to the study was 52, yielding a 34% response rate. This is above the typical response rate of 30% (Shaughnessy & Zechmeister, 1990)

General Demographic Characteristics of the Sample

As shown in Table 1, the age of the participants ranged from 19 to 71 years, with an average age of 38 years and standard deviation of 13 years.

Table 1

Participant Ages (n=48*)

Variable	Mean	Std Deviation	Minimum	Maximum
Age (years)	38	13	19	71

* N=52 due to missing data

The demographic information pertaining to gender and marital status is presented in Table 2. It can be seen that the highest percentage of respondents were female. There were 19 male participants (36.5%) and 33 female (63.5%). Approximately forty percent of the participants were single, and approximately forty percent were married. Of the remaining participants approximately fourteen percent were divorced and six percent were in de facto relationships. Two percent were widowed.

Table 2
Gender and Marital Status of Participants

Variable	Frequency	% of total
<u>Gender (N=52)</u>		
Male	19	36.5
Female	33	63.5
<u>Marital Status (n=51*)</u>		
Single	20	39.2
Married	20	39.2
De Facto	3	5.9
Divorced	7	13.7
Widow	1	2.0

* N=52 due to missing data

Table 3 displays the music-related demographic characteristics. The role variable assesses how participants integrate music into their life. It addresses whether the participants are a professional music teacher only, a professional performer only, a teacher and performer, and whether they have another income as their primary income. Overall, the role that had the most respondents was the “performer and teacher” category (n=15). This was followed closely by the categories of “professional music teacher” (n=12) and “performer – other primary income” (n=13). The category with the lowest participation is that of “teacher – other primary income”(n=3). The “performer and teacher – other primary income” category had 8 respondents. The category of “professional performer” had no respondents, therefore is omitted from further analyses.

Table 3

Music-related Demographic Characteristics of the Sample

Variable	Frequency	% of total
<u>Role (n=51)</u>		
Professional music teacher	12	23.5
Performer & teacher	15	29.4
Performer - other primary income	13	25.5
Teacher - other primary income	3	5.9
Performer & Teacher - other primary income	8	15.7
<u>Instrument Group (n=46)</u>		
String	23	50.0
Wind	7	15.2
Brass	4	8.7
Keyboard	8	17.4
Percussion	1	2.2
Other	3	6.5
<u>Musical Education (n=42)</u>		
Grade 7	2	4.8
Grade 8	16	38.1
Performer/Teachers Diploma	15	35.7
BA	4	9.5
MA	2	4.8
PhD	2	4.8
Registered Music Teacher	1	2.4
<u>Non-music Education (n=36)</u>		
School Cert.	1	2.8
Sixth Form Cert.	3	8.3
Bursary	2	5.6
BA	12	33.3
MA	3	8.3
Other	15	41.7

* N=52 due to missing data

Table 3 also presents the breakdown of musicians into instrument groups. This is a division according to instrument families. As shown in Table 3 half of the respondents belonged to the string family of instruments (50%). The instrument group with the least members was the percussion group (n=1). The participants were fairly evenly distributed in the groups of wind and keyboard (n=7 and n=8, respectively), and in the brass (n=4) and other (n=3) groups.

The majority of respondents (73.8%) who indicated that they had a musical education had grade 8 or a performer's or teacher's diploma as their highest musical qualification. The lowest frequency was found with register music teachers, of which there was only one. Grade 7, MA, and BA had equal responses (n=2). A smaller overall response was attained for non-musical education. For the musicians that indicated some form of non-musical education, the categories of BA and other had the highest responses (n=12 and n=15, respectively). Nineteen percent had a tertiary qualification of some description.

Procedure

The Massey University Human Ethics committee was forwarded a research proposal which detailed the rationale and objectives of the research. The committee approved the intended methods to be utilised in the research.

Approval for access to participants was obtained from the manager of the Music Education Centre, and the Conductor/Director of the Auckland Symphony Orchestra (ASO). The questionnaires were then distributed to the total sample population of 155. There were two methods of distribution. At the Music Education Centre the questionnaires were distributed through the internal mailing system. The questionnaires for the ASO members were distributed at a rehearsal. This was done in consideration of privacy issues; no names and/or addresses were required in order to issue the questionnaires.

De Vaus (1995) asserts that a mail-out date should be at the beginning of the week in order to maximise response rates in postal surveys. In accordance with De Vaus the questionnaires were distributed on a Monday. The questionnaire pack contained the following information:

- An information sheet (see Appendix A) inviting musicians to participate in the research. This sheet included a clear description of the nature and duration of the participant's involvement in the research. The information sheet reminded potential participants that participation was voluntary and it informed potential participants of their right to decline participation, withdraw at any time, or refuse to answer any particular questions. Potential participants were also assured that their individual results would be anonymous, thus ensuring confidentiality and protecting their privacy. Further, potential participants were given an indication of how they would be given access to a summary of the results at the conclusion of the study.
- A questionnaire on career commitment, recreational commitment, stress, strain, coping resources, and personality (see Appendix B).
- A postage paid, self-addressed envelope intended to maximise the response rate through reducing the effort required to return the questionnaire.

Two weeks after the questionnaires were distributed potential participants received reminders. At the Music Education Centre a reminder note was included in the teachers newsletter, and within the ASO the conductor reminded all members at a rehearsal. As questionnaires were returned they were coded and the data was entered in to a data file. This data file was used for analyses.

Measures

The questionnaire utilised consisted of five sections. The first section gathered demographic information. The second and third sections assessed the career commitment and recreational commitment of participants through a career commitment scale (Blau, 1985, 1988, 1989; Carson & Bedeian, 1994). The fourth section utilised the Occupational Stress Inventory (Osipow & Spokane, 1992) to investigate the participants' perceived occupational stress, personal strain, and coping resources. The final section assessed the participants' personality traits through the use of the revised NEO personality inventory (NEO PI-R) (Costa & McCrae, 1992).

The Career Commitment Scale

The career commitment scale was a composition of two established career commitment scales by Blau (1985, 1989) and Carson and Bedeian (1994), plus four additional questions designed by the researcher relating to the notions of careers today (Hall & Moss, 1998). This section had a total of 19 questions some of which were reverse scored.

In compiling this scale it was necessary to create consistency in question phrasing. The issue of ambiguity associated with the word career was given consideration, and to overcome the vagueness in this area, the phrase "line of work" was used throughout the career commitment section. Further, to reduce the likelihood of mono-method bias both positively and negatively phrased items were used in the questionnaire (Campbell, Seigman, & Rees, 1967).

In the selection of questions to be utilised in the study, consideration was given to selecting questions that were applicable to the sample population being studied.

Irrelevant questions were omitted so that erratic responses did not confound the results.

Six of the questions used in the commitment scale were from Blau's (1985, 1988, 1989) Career Commitment Scale, which consists of seven questions. Previous research indicates that as a general measure of career commitment this measure is reliable and valid across other samples. For example, using a sample of nurses in a longitudinal study, Blau (1985) found the scale to have an internal consistency of .87 at Time 1 and .85 at Time 2, and over 7 months it had a test-retest reliability of .67. Evidence for discriminant validity was also found as the correlations between career commitment and career withdrawal at Time 1 (T_1) and Time 2 (T_2) were significant ($T_1, r = -.38$; $T_2, r = -.41$), while correlations between job withdrawal cognitions and career commitment were not significant ($T_1, r = -.07$; $T_2, r = -.08$).

Additional support was found in a later study (Blau, 1988), using samples of insurance company field officers and newspaper company supervisors, where the internal consistency was .84 and .83 respectively. Within the insurance sample the discriminant validity was tested longitudinally and the relationship between career withdrawal cognitions and career commitment was found to be significant ($r = -.36, p < .01$), whilst the relationship between job withdrawal and career commitment was not significant ($r = -.11, p < .01$).

Nine questions were taken from Carson and Bedeian's (1994) 12-item Career Commitment Measure (CCM). Their research indicated that their commitment measure consisted of three distinct factors; career identity, career resilience, and career planning. Factor analysis indicated that all but one loading was above .50. 64% of the total variance was accounted for by the three-factor solution. Giving question applicability consideration, three questions were selected from each of the three factors.

The range of coefficient alpha reliabilities for the CCM was .79 to .85. Convergent validity with Blau's (1985) measure was suggested to be .75 once correction for attenuation in the CCM had been conducted. Construct contamination was not found to be an issue (Carson & Bedeian, 1994).

The additional four questions pertaining to commitment to the protean notions of careers were:

1. I manage and control my musical career.
2. I do not achieve a high degree of personal satisfaction from this line of work/career field (reverse scored).
3. My personal development involves continuously learning and developing my skills/knowledge .
4. My musical career enables me to live out my deeply held values.

The Recreational Commitment Scale

The recreational commitment scale was developed to allow differentiation among those musicians who are involved in teaching or performing music for recreational purposes. This scale was developed from the career commitment scale utilised in this study. It consisted of 11 questions. In place of the term "line of work," the phrase "recreational activity" was used. The number of questions were less than for that of the career commitment scale because not all the career commitment questions were applicable to those involved in music for recreational purposes. The irrelevant questions were dropped for this scale.

The recreational commitment scale consisted of the same questions from Carson and Bedeian's (1994) Career Commitment Measure that were used in the career commitment scale, and only two questions from Blau's (1985, 1988, 1989) Career Commitment Scale.

The Occupational Stress Inventory

To assess stress, strain and coping levels of the participants the Occupational Stress Inventory (OSI) was utilised. Osipow and Spokane (1992) developed this scale. The OSI consists of three sections; occupational stress, personal strain, and coping resources. It assesses individual's scores on these dimensions and the 14 subscales that comprise the dimensions. The scale definitions and the subscales are listed in Table 4. There are a total of 140 items in the OSI, on which subjects indicate, on a 5-point scale ranging from rarely or never true to true most of the time, the extent to which a statement is representative of themselves. A number of the items were reverse scored. For the purpose of this study, eight of the items in the occupational stress section were omitted, as they were not applicable to musicians.

The OSI is quick to administer and score, and provides useful information regarding occupational stress, strain, and coping techniques (Dorn, 1991). Dorn argues that it is a useful tool for assessing stress in the workplace, and also for teaching individuals about the potential impact that occupational stress can have on their personal well-being.

Validation data suggest that the OSI is empirically sound (Osipow & Spokane, 1992). Using Form E-2 with a sample of 549 working adults, an internal consistency analysis was conducted. For the total questionnaire scores, the alpha coefficients were .89, .94, and .99 for occupational stress, personal strain, and coping resources respectively. For the subscales, the coefficients ranged from .71 to .94. The validity of the OSI has been indicated in numerous studies conducted using the scale (eg. Kahn & Cooper, 1991; Osipow & Spokane, 1983; Osipow & Spokane, 1992).

The NEO-PI-R

Personality was assessed using the self report form of the NEO PI-R (Costa & McCrae, 1992; Costa, McCrae, & Dye, 1991; McCrae & Costa, 1986, 1987). This scale consists of 240 items, and respondents rate the extent to which the statement is characteristic or representative of themselves on a five-point scale ranging from strongly disagree to strongly agree. Reversed scoring is used with some items.

Table 4

The Occupational Stress Inventory Subscales

Dimension	Subscale	Definition
Occupational Stress	Role Overload (RO)	Measures the extent to which job demands exceed resources (personal and workplace), and the extent to which an individual is able to accomplish expected work loads.
	Role Insufficiency (RI)	Measures the extent to which the individual's training, education, skills, and experience are appropriate to job requirements.
	Role Ambiguity (RA)	Measures the extent to which the priorities, expectations, and evaluation criteria are clear to the individual.
	Role Boundary (RB)	Measures the extent to which the individual is experiencing conflicting role demands and loyalties in the work setting.
	Responsibility (R)	Measures the extent to which the individual has, or feels, a great deal of responsibility for the performance and welfare for others on the job.
	Physical Environment (PE)	Measures the extent to which the individual is exposed to high levels of environmental toxins or extreme physical conditions.
Personal Strain	Vocational Strain (VS)	Measures the extent to which the individual is having problems in work quality or output. Attitudes toward work are also measured.
	Psychological Strain (PSY)	Measures the extent of psychological and/or emotional problems being experienced by the individual.
	Interpersonal Strain (IS)	Measures the extent of disruption in interpersonal relationships.
	Physical Strain (PHS)	Measures complaints about physical illness or poor self-care habits.
Coping Resources	Recreation (RE)	Measures the extent to which the individual makes use of and derives pleasure and relaxation from regular recreational activities.
	Self-Care (SC)	Measures the extent to which the individual regularly engages in personal activities which reduce or alleviate chronic stress.
	Social Support (SS)	Measures the extent to which the individual feels support and help from those around him/her.
	Rational/Cognitive Coping (RC)	Measures the extent to which the individual possesses and uses cognitive skills in the face of work-related stress.

Note: Adapted from *Occupational stress inventory: Manual, research version* (p. 1), by S.H. Osipow & A.R. Spokane, 1992, Florida: Psychological Assessment Resources, Inc.

The NEO PI-R consists of five overall dimensions which assess different aspects of personality. These, along with the characteristics defining them are presented in Table 5. Each dimension of the NEO PI-R is comprised of six facet scales relating to the overall dimension (Costa & McCrae, 1992). The individual facets within each dimension were not utilised in the present study, rather the focus was on the broad dimensions, in line with previous research (eg. Cooper & Wills, 1989; Kemp, 1982).

The reliability of the NEO PI-R dimensions have been investigated in terms of internal consistency and test-retest reliability. Costa et al. (1991) found coefficient alphas ranging from .56 to .81. The overall coefficient alphas ranged from .86 to .95. A six year longitudinal study of the neuroticism, extroversion, and openness scales showed stability coefficients ranging from .68 to .83 in both the self-report and observer rating forms (Costa & McCrae, 1988). For the conscientiousness and agreeableness scales, three year test-retest coefficients ranged from .51 to .82 (Costa & McCrae, in press, cited in Costa & McCrae 1992).

In terms of validity of the NEO PI-R, a number of studies have been conducted. In three independent subsamples, McCrae and Costa (1987) found evidence of consensual validation for all five dimensions. They also considered convergent and discriminant validity, and found that for all five dimensions the median validity coefficient was .44. Several studies have also provided evidence of the construct validity of the NEO PI-R, for example, Costa and McCrae (1980, 1984).

Demographic Information

Demographic information was collected on variables which were identified in the literature as possibly influencing the career commitment, recreational commitment, stress, strain, and coping, and personality differences of the participants (see Appendix C). The main demographics explored in this study were the role music had in the participant's life, such as whether they were a teacher, a performer, or some combination thereof, gender, marital status, musical and non-musical education, and which instrument they played. Due to the small sample size care was taken to have broad enough categories to ensure that participants could not be identified.

Table 5

The Big Five Trait Factors and Illustrative Scales

Trait Scales	Characteristics of the High Scorer	Characteristics of the Low Scorer
<p>NEUROTICISM (N) Assesses adjustment vs. emotional instability. Identifies individuals prone to psychological distress, unrealistic ideas, excessive cravings or urges, and maladaptive coping responses.</p>	Worrying, nervous, emotional, insecure, inadequate, hypochondriacal	Calm, relaxed, unemotional, hardy, secure, Self-satisfied
<p>EXTRAVERSION (E) Assesses quantity and intensity of interpersonal interaction; activity level; need for stimulation; and capacity for joy.</p>	Sociable, active, talkative, person-oriented, optimistic, fun-loving, affectionate	Reserved, sober, unexuberant, aloof, task-oriented, retiring, quiet
<p>OPENNESS (O) Assesses proactive seeking and appreciation of experience for its own sake; toleration for and exploration of the unfamiliar.</p>	Curious, broad interests, creative, original, imaginative, Untraditional	Conventional, down-to-earth, narrow interests, unartistic, unanalytical
<p>AGREEABLENESS (A) Assesses the quality of one's interpersonal orientation along a continuum from compassion to antagonism in thoughts, feelings and actions.</p>	Soft-hearted, good-natured, trusting, helpful, forgiving, gullible, straightforward	Cynical, rude, suspicious, uncooperative, vengeful, ruthless, irritable, manipulative
<p>CONSCIENTIOUSNESS (C) Assesses the individual's degree of organisation, persistence, and motivation on goal-directed behaviour. Contrasts dependable, fastidious people with those who are lackadaisical and sloppy.</p>	Organised, reliable, hard-working, self-disciplined, punctual, scrupulous, neat, ambitious, persevering	Aimless, unreliable, lazy, careless, lax, negligent, weak-willed, hedonistic

Note: Adapted from *NEO PI-R: Professional manual, revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory (NEO-FFI)* (p. 2), by P.T. Costa & R.R. McCrae, 1985, Florida: Psychological Assessment Resources, Inc.

Analyses

The analyses used in this study included both descriptive and inferential statistics. Descriptive statistics were assessed in order to analyse the participants in the study in terms of demographic variables. Inferential statistics, namely independent-sample t-tests, and ANOVAs were used to identify possible differences on career commitment and

recreational commitment, the OSI factors and NEO PI-R factors in terms of specific demographic variables. Pearson product-moment correlation coefficients were computed to assess possible relationships between variables.

Multiple regression analyses were performed to investigate if personality determinants of career commitment, occupational stress, personal strain, or coping resources were identifiable. Finally, the career commitment scale was factor analysed, using principal components analysis and varimax rotation procedures, because it was comprised of components of two established scales, and four additional questions designed by the researcher.

CHAPTER SIX: RESULTS

The results obtained from the questionnaires were entered into a data file. All analyses of the data was conducted using the Statistical Package for Social Sciences (SPSS) software package. Prior to conducting any analyses the data were screened to check for accuracy of input. Ten percent of the questionnaires were randomly selected, and checked for possible input errors in the data file. No inaccuracies were found in the data input. Then the maximum and minimum variable scores in the data file were checked to assess the presence of idiosyncratic data. It was ensured that all the data corresponded with the codes each variable had been assigned in the codelist that was established.

Missing values were then dealt with. They constituted approximately 5% of the obtained results. Where a scale had one or two missing values only, the other values in the scale were averaged and this value was assigned in place of the missing value (Tabachnick & Fidell, 1989). Where participants had more omitted information the missing values were assigned a code, and these were specified within the SPSS data file. Not applicable (NA) responses were also given a code and specified in the SPSS data file.

Descriptive Statistics

The Career Commitment Scales

Descriptive statistics were computed for the career commitment and recreational commitment scales. These are presented in Table 6. The means for both scales are relatively low given the possible range, suggesting fairly high levels of commitment among the participant musicians (low scores on these scales are indicative of higher levels of commitment). In terms of career commitment, the median score was 36 and the score with the highest frequency was 35, suggesting overall high commitment levels. Conversely with the recreational commitment, it can be seen from Table 6 that both the median and mode are higher than the mean score.

The coefficient alpha for the career commitment scale is .80, and for the recreational commitment scale it is .12. The reliability coefficients are very good for career commitment, but not good for recreational commitment. This may be due to the smaller number of items that comprise the recreational commitment scale.

Table 6

The Commitment Scales: Descriptive Statistics

Scale	Possible Range		Mean	Median	Mode	Std. Deviation	Reliability (α)
	Low	High					
Career Commitment (CC) (n=31)	19	95	37.52	36.00	35.00	10.06	.80
Recreational Commitment (RC) (n=32)	11	55	21.94	22.00	26.00	5.80	.12

NOTE: Sample sizes vary as participants completed different sections of the questionnaire depending on whether music was their career, or a recreational activity.

The Occupational Stress Inventory

Table 7 presents the means, standard deviations and internal consistency statistics for the various dimensions of the Occupational Stress Inventory (OSI) (Osipow & Spokane, 1992). It describes the three broad dimensions of occupational stress, personal strain, and coping resources as well as the OSI's fourteen subscales. Given the possible range of scores, these descriptive results suggest that musicians, on average, have low occupational stress and personal strain, and higher coping resources.

With regard to the individual subscales, within the occupational stressors dimension it appears that musicians, on average, have low role overload, role ambiguity, role boundary, and physical environment, but higher role insufficiency and responsibility.

On the personal strains dimension, low average scores were reported on all the subscales, although psychological strain and interpersonal strain were higher than vocational strain and physical strain. This contrasts with the coping resources dimension where high scores were reported on all subscales in relation to the possible range, especially the subscales of social support and rational/cognitive coping.

The internal consistency estimates of reliability were computed. The reliabilities of the three dimensions and the individual subscales are also shown in Table 7. The reliabilities range from .57 to .97. Nunnally (1978) states that reliability coefficients of .6 and above are acceptable, hence, with rounding these are all in the range of acceptability.

Table 7

The Occupational Stress Inventory: Descriptive Statistics

Scale	n	Possible Range		Mean	Std. Deviation	Reliability (α)
		Min	Max			
Role Overload (RO)	29	9	45	21.00	6.65	.57
Role Insufficiency (RI)	29	10	50	31.90	3.90	.74
Role Ambiguity (RA)	29	6	30	17.97	1.88	-.95
Role Boundary (RB)	29	7	35	14.17	4.74	.81
Responsibility (R)	29	10	50	30.48	4.88	.89
Physical Environment (PE)	29	10	50	19.90	5.86	.97
Occupational Stress (OS)	29	52	260	135.41	6.31	.93
Vocational Strain (VS)	29	10	50	15.24	4.21	.89
Psychological Strain (PSY)	29	10	50	19.66	6.33	.82
Interpersonal Strain (IS)	29	10	50	19.52	4.85	.74
Physical Strain (PHS)	28	10	50	16.96	8.21	.97
Personal Strain (PS)	28	40	200	72.18	13.67	.93
Recreation (RE)	29	10	50	28.66	6.04	.64
Self-care (SC)	29	10	50	26.55	7.17	.79
Social Support (SS)	29	10	50	38.79	8.00	.86
Rational/Cognitive						
Coping (RC)	29	10	50	37.10	6.43	.80
Coping Resources (CR)	29	40	200	131.10	18.40	.86

NOTE: Sample sizes vary as participants completed different sections of the questionnaire depending on whether music was their career, or a recreational activity.

One reliability of concern is that of role ambiguity (-.95). This required further investigation as negative internal consistency reliabilities are not common. Analysis of this coefficient indicates that the internal consistency of this scale is definitely -.95. The reason for the negative coefficient appears to be that there is in the order of twice as much variance within the items than in the total scores. This suggests the problem of the individual differences on this scale canceling each other out. Hence the high negative coefficient. Examination of the correlations between items on this scale suggests that these items are clearly not internally consistent. For example there are high inverse relationships between some items, for example between item 23 and item 24 ($r = -.84, p = .01$).

This raises two questions; 1) are the items in fact measuring different things,

or 2) are the items just measuring different thing within this sample? Analysis of other internal consistency reports (Osipow & Spokane, 1983) suggest that the items are measuring similar things within the scale, see Table 8. It is likely then, that the problem may be that the scale is inappropriate for the sample in the present study and is thus not measuring similar things. This is argued because upon analysis of the actual questions ie.comparing 23 and 24, it is quite likely that musicians may answer at opposite extremes on these items. Thus, in the present study this scale is problematic, and less confidence is placed in results involving this scale.

Table 8
Comparisons of Reliability Estimates

Scale	Present Study (α)	Osipow & Spokane (1983) (α)
Role Overload (RO)	.57	.83
Role Insufficiency (RI)	.74	.90
Role Ambiguity (RA)	-.95	.78
Role Boundary (RB)	.81	.82
Responsibility (R)	.89	.71
Physical Environment (PE)	.97	.85
Occupational Stressors (OS)	.93	.89
Vocational Strain (VS)	.89	.71
Psychological Strain (PSY)	.82	.89
Interpersonal Strain (IS)	.74	.81
Physical Strain (PHS)	.97	.87
Personal Strains (PS)	.93	.94
Recreation (RE)	.64	.71
Self-care (SC)	.79	.73
Social Support (SS)	.86	.83
Rational/Cognitive Coping (RC)	.80	.78
Coping Resources (CR)	.86	.88

Table 8 compares these internal consistency estimates of reliability to the reliabilities found Osipow and Spokane (1983). A number of these reliabilities are similar, however Osipow and Spokane did find higher reliabilities for the subscales

role overload, role insufficiency, psychological strain, interpersonal strain, and recreation. They found lower reliabilities for the overall dimension of occupational stressors, and the subscales role ambiguity, responsibility, physical environment, vocational strain, physical strain, and self-care.

The NEO PI-R

The means, standard deviations, and internal consistency reliabilities for the NEO PI-R were computed and are presented in Table 9. In terms of the possible range of scores, the results indicated that agreeableness, conscientiousness, and openness are fairly high. The mean scores for neuroticism and extroversion are much lower than the other dimensions, with neuroticism being the lowest.

Compared to the reliability studies reported by Costa, McCrae, and Dye (1991), the overall reliabilities of this sample were similar, although marginally lower overall. Costa et al. found reliabilities of .86, .90, .89, .92, and .87 for agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience, respectively. Their sample was comprised of volunteer men and women partaking in a national study of job performance (N = 1539). The differences in reliabilities could be due to the differences in sample size.

Table 9

The NEO PI-R: Descriptive Statistics

Scale	N	Possible Range		Mean	Std. Deviation	Reliability (α)*
		Min	Max			
Agreeableness (A)	52	0	192	123.00	14.26	.86
Conscientiousness (C)	52	0	192	122.48	17.98	.88
Extroversion (E)	52	0	192	109.75	15.54	.84
Neuroticism (N)	52	0	192	86.94	18.76	.91
Openness to Experience (O)	52	0	192	120.62	15.50	.85

NOTE: Standardised item alpha

Role and the Scale Variables

Descriptive statistics were computed to assess the means and standard deviations of the commitment scales, the OSI dimensions and subscales, and NEO PI-R dimensions across the different musician role groups. These are presented in Table 10. Overall, the statistics pertaining to the subgroup “music teacher- other income” should be viewed with caution because this subgroup was very small (n=3).

Table 10

Means and Standard Deviations Across Musician Role Groups

Scale	Professional Music		Teacher &		Music Teacher		Performer		Teacher & Performer	
	Teacher		Performer		Other Income		Other Income		Other Income	
	(n=12)		(n=15)		(n=3)		(n=13)		(n=8)	
	M	SD	M	SD	M	SD	M	SD	M	SD
<u>Commitment</u>										
Career Commitment	38.67	5.03	49.67	14.50	42.00	5.66	0*	0*	38.50	13.44
Recreational										
Commitment	19.00	4.36	23.67	8.74	22.00	7.07	20.85	4.98	24.99	7.43
<u>Occupational Stress Inventory</u>										
Role Overload	23.82	7.14	19.92	3.53			14.50	4.95	22.50	17.68
Role Insufficiency	31.64	4.32	32.33	3.39			31.50	2.12	33.50	2.12
Role Ambiguity	18.00	1.41	18.67	1.61			18.00	1.41	16.00	4.24
Role Boundary	13.00	2.65	16.00	5.58			13.50	3.54	17.00	1.41
Responsibility	31.27	2.49	31.50	4.83			30.00	1.41	29.00	7.07
Physical Environment	19.73	5.53	21.08	4.87			10.50	7.78	23.00	7.07
Occupational										
Stress	137.45	11.79	139.50	12.10			118.00	4.24	141.00	22.63
Vocational Strain	14.91	3.45	16.67	4.81			14.00	2.12	14.50	2.12
Psychological Strain	19.91	6.82	20.92	6.86			19.50	2.12	18.00	1.41
Interpersonal Strain	21.00	5.27	18.67	4.19			17.50	4.95	16.50	3.54
Physical Strain	19.91	9.21	13.58	5.81			12.50	.71	21.50	14.85
Psychological Strain	75.73	16.97	69.83	10.79			64.50	3.54	70.50	21.92
Recreation	27.55	6.80	29.08	6.10			28.00	4.24	35.00	1.41
Self-Care	23.36	6.61	28.33	6.83			26.50	9.19	27.50	6.36
Social Support	38.91	8.09	38.00	7.87			29.50	2.12	49.50	.71
Rational/Cognitive										
Coping	36.45	7.42	37.33	3.98			30.50	12.02	41.50	10.61
Coping Resources	126.27	18.36	132.75	18.36			114.50	14.85	153.50	17.68
<u>NEO PI-R</u>										
Agreeableness	129.08	15.66	120.67	13.58	125.00	19.70	125.69	12.47	112.63	11.55
Conscientiousness	127.92	17.31	122.87	19.16	110.67	23.12	117.77	19.71	123.88	12.10
Extroversion	112.92	17.66	108.73	14.04	110.67	16.50	107.69	18.85	110.88	12.30
Neuroticism	85.42	26.90	84.13	17.68	92.67	14.57	89.54	16.72	86.63	13.94
Openness	120.67	20.11	122.13	15.01	114.00	10.54	122.77	14.07	117.38	15.61

Note: 5% trimmed mean

* No participants who were performers – other income completed this section

With regard to the commitment scales, the “teacher and performer” subgroup had the highest mean score for career commitment, followed by the “music teacher – other income” subgroup. The subgroups of “professional music teacher” and “teacher and performer – other income” had the lowest mean scores. In terms of recreational commitment, the subgroups were fairly close in terms of means, although the subgroup of “teacher and performer – other income” had the highest mean scores, and the professional had the lowest. It should be noted that lower scores are indicative of higher levels of commitment.

In relation to the Occupational Stress Inventory information, it can be seen from Table 10 that there is no information pertaining to the “teacher – other income” subgroup. This is because the participants who were involved in music for recreational purposes were not required to complete the OSI section of the questionnaire, and this group fell into this category. Given this however, some participants did complete all sections regardless of what was required, hence a number of recreational participants have supplied OSI data when it was not required.

In terms of the occupational stress dimension the musician subgroups were similar in mean scores. The exception was the subgroup of “performer – other income” which had a lower mean score. The standard deviations within each subscale are also similar, with the exception of role ambiguity for “professional music teachers,” physical environment for the “performer – other income” subgroup, and role boundary and responsibility for the “teacher and performer” subgroup. These standard deviations were higher than the other standard deviations in the respective subgroups.

The subgroup of “performer – other income” had a lower mean score on the three overall OSI dimensions. On the surface, this suggests that this subgroup appears to experience less occupational stress and personal strain than the other subgroups, and it also suggests that these musicians have lower coping resources.

On the dimension of personal strains more differences were apparent. The subgroup experiencing the highest personal strains was “professional music teacher,” whilst “performer – other income” experienced the least. Considering the individual subscales of the personal strain dimension, on the surface, it appears that the subgroup of “teacher and performer” experience the highest vocational strain, and “performer – other income” experience the least. The “professional music teacher” subgroup appears to experience the highest interpersonal strain, whilst the

“teacher and performer – other income” subgroup experience the least. The highest physical strain was found with the subgroup “teacher and performer - other income”, whilst “performer – other income” experienced the lowest physical strain. All the personal subscale mean scores were quite similar, although the “teacher and performer” subgroup had the highest mean score.

Overall, the highest mean scores for coping resources were found in the musician subgroup of “teacher and performer – other income.” The lowest mean scores were found with the subgroup “performer – other income.” The “teacher and performer - other income” subgroup appear to have the best coping resources in the areas of recreation, social support, and rational/cognitive coping skills. The only musician subgroup that showed low mean scores on any coping resources subscale was the subgroup “performer - other income.” They were lower in terms of rational/cognitive coping. The balances of the mean scores were fairly similar within subscales.

There was great variance in the standard deviations among the subscales however, with the highest being with the subgroup “performer – other income” on the rational/cognitive coping subscale, and the lowest standard deviation being with the “teacher and performer – other income” subgroup on the social support subscale.

The NEO PI-R dimensions of agreeableness, conscientiousness, and openness to experience all had similar variance in terms of highest and lowest scores, however standard deviations varied. The “professional music teacher” subgroup had the highest mean scores on both agreeableness and conscientiousness. The subgroups “performer - other income” and “teacher and performer” had the highest scores on openness to experience. The subgroup of “teacher - other income” were lowest on the dimensions of conscientiousness and openness to experience, but had the highest mean scores on the neuroticism dimension.

Correlational Analyses

Correlation coefficients were computed for career commitment, recreational commitment, the three OSI overall dimension scores, and the five dimensions of the NEO PI-R. These were conducted using the Pearson product-moment correlation coefficient.

Relationships among the career commitment, recreational commitment, and the three main OSI dimensions (occupational stress, personal strain, and coping resources) were first computed. Their correlation coefficients are presented in Table 11. There were no significant relationships among career commitment, recreational commitment, and the OSI dimensions. Overall however, career commitment was positively linked with occupational stress and coping resources and negatively linked with personal strains. Conversely, recreational commitment was negatively linked with occupational stress and coping resource, and positively linked with personal strains.

Table 11

Pearson product-moment correlations between Career Commitment, Recreational Commitment, and OSI Dimensions

	Career Commitment (CC)	Recreational Commitment (RC)	Occupational Stress	Personal Strains
Career Commitment				
Recreational Commitment	.494			
Occupational Stress	.144	-.065		
Personal Strain	-.043	.229	-.193	
Coping Resources	.068	-.023	.111	-.306

NOTE: n = 9 for Recreational Commitment (reduction in numbers because this represents those participants who completed the OSI and CC when they were not required to), n = 28 for Career commitment, n = 28 for OSI dimensions

Table 12 depicts the correlations between career commitment, recreational commitment, and the five NEO PI-R dimensions. There were no significant correlations between career commitment and recreational commitment and any of the NEO PI-R dimensions. Agreeableness was significantly and positively related to conscientiousness ($r = .425, p < .01$), and significantly, but negatively related to neuroticism ($r = -.342, p < .05$), and openness ($r = -.281, p < .05$). Conscientiousness also correlated significantly, although negatively, with neuroticism ($r = -.458, p < .01$). Finally, a significant positive correlational relationship was found between extraversion and openness ($r = .406, p < .01$).

Table 12

Pearson product-moment correlations between Career Commitment, Recreational Commitment, and NEO PI-R Dimensions

	CC	RC	A	C	E	N
Career Commitment (CC)						
Recreational Commitment (RC)	.494					
Agreeableness (A)	.144	-.177				
Conscientiousness (C)	-.072	-.004	.425**			
Extraversion (E)	.071	-.086	-.108	-.112		
Neuroticism (N)	-.004	.009	-.342*	-.458**	-.172	
Openness (O)	-.238	-.223	-.281*	-.190	.406**	-.025

NOTE: n = 32 for Recreational Commitment, n = 31 for Career commitment, n = 52 for NEO PI-R dimensions

* p < .05 (2-tailed)

** p < .01 (2-tailed)

Correlation coefficients were then computed for career commitment, recreational commitment and the fourteen subscales of the OSI to assess any possible relationships. These results are presented in Table 13. Whilst recreational commitment had no significant correlations with any of the subscales, relationships were found between some of the subscales and career commitment. Significant relationships were found between career commitment and role ambiguity ($r = .487$, $p < .01$) and physical environment ($r = .402$, $p < .05$). With the exception of vocational strain and rational/cognitive coping, all the correlations, significant or not, between career commitment and the OSI subscales, were positive.

A number of significant relationships were also found between the subscales themselves. The strongest relationships were found between role overload and physical environment ($r = .507$, $p < .01$), role boundary and responsibility ($r = .561$, $p < .01$) interpersonal strain and physical strain ($r = .523$, $p < .01$), and recreation and social support ($r = .494$, $p < .01$). All these relationships were positive. Overall, the weakest correlations were found between social support and role boundary ($r = -.010$) and role overload and role boundary ($r = -.010$).

Table 13

Pearson product-moment correlations between Career Commitment, Recreational Commitment, and OSI Subscales

	CC	RC	RO	RI	RA	RB	R	PE	VS	PSY	IS	PHS	RE	SC	SS	RC
Career Commitment (CC)																
Recreational																
Commitment (RC)	.494															
Role Overload (RO)	.276	-.400														
Role Insufficiency (RI)	.218	.051	.410*													
Role Ambiguity (RA)	.487**	.297	.374*	.160												
Role Boundary (RB)	.332	.225	.016	.335	.277											
Responsibility (R)	.230	.154	-.132	.222	.029	.526**										
Physical Environment (PE)	.390*	.046	.496**	.093	.226	.106	-.129									
Vocational Strain (VS)	.418*	.291	.198	.106	.353	.209	.332	.101								
Psychological																
Strain (PSY)	.021	.167	.092	.360	.200	.350	.407*	.019	.143							
Interpersonal Strain (IS)	.095	-.263	.221	.252	.229	.128	-.124	.328	-.111	.089						
Physical Strain (PHS)	.188	-.337	.452*	.195	.031	-.120	-.329	.419*	-.178	.149	.523**					
Recreation (RE)	.144	.601	-.025	-.136	-.315	.037	.060	.386*	.029	-.391*	-.023	.057				
Self-Care (SC)	.015	-.289	.016	.082	-.014	.360	.180	-.071	-.119	-.258	-.058	-.370	.072			
Social Support (SS)	.190	-.265	.150	-.210	-.231	.000	.104	.253	-.115	-.369*	-.189	-.104	.494**	.387*		
Rational/Cognitive																
Coping (RC)	-.280	.025	-.121	-.173	-.248	-.092	.069	.120	-.157	.069	.011	-.046	.067	.234	.193	

* $p < 0.05$ (2-tailed)** $p < 0.01$ (2-tailed)

Correlations were also computed between the OSI subscales and the dimensions of the NEO PI-R. These are presented in Table 14. A number of significant relationships emerged. Of the 3 overall dimensions of the OSI, one, coping resources, correlated significantly with three NEO PI-R dimensions. Coping resources correlated significantly and positively with conscientiousness ($r = .423$, $p < .05$) and extraversion ($r = .422$, $p < .05$), and significantly but negatively with neuroticism ($r = -.681$, $p < .01$).

Table 14

Pearson product-moment correlations between the OSI Subscales and the five dimensions of the NEO PI-R (n = 29)

	A (n = 29)	C (n = 29)	E (n = 29)	N (n = 27)	O (n = 29)
Role Overload	.226	.118	.336	.001	.121
Role Insufficiency	-.003	-.020	-.183	.292	.044
Role Ambiguity	.070	-.081	.041	.036	-.140
Role Boundary	.129	.206	.034	.226	-.325
Responsibility	-.090	.227	.077	.021	-.176
Physical Environment	-.108	.087	.525**	-.036	.044
Occupational Stressors	.095	.108	.130	.021	-.028
Vocational Strain	.032	.026	-.132	-.028	.175
Psychological Strain	-.260	.175	-.221	.592**	-.178
Interpersonal Strain	-.016	.022	-.012	.234	-.105
Physical Strain	-.013	-.108	-.027	.315	-.076
Psychological Strains	-.069	.017	-.233	.316	.104
Recreation	-.017	.023	.345	-.338	-.007
Self-Care	.341	.395*	.061	-.466*	-.049
Social Support	.282	.171	.405*	-.682**	-.014
Rational/Cognitive Coping	-.222	.520**	.308	-.265	.333
Coping Resources	.177	.423*	.422*	-.681**	.089

NOTE: Only new correlations have been included. Correlations discussed previously have been omitted.

* $p < 0.05$ (2-tailed)

** $p < 0.01$ (2-tailed)

In terms of the individual subscales, conscientiousness was strongly correlated with two coping resources subscales, namely rational/cognitive coping ($r = .520$, $p < .01$) and self-care ($r = .395$, $p < .05$). Significant relationships were also found between extraversion and physical environment ($r = .525$, $p < .01$) and extraversion and social support ($r = .405$, $p < .05$). Neuroticism had several strong correlations with OSI components including psychological strains ($r = .592$, $p < .01$), self-care ($r = .466$, $p < .05$), and social support ($r = -.682$, $p < .01$).

Inferential Statistics

Independent-samples t tests

Independent-samples t tests were conducted to evaluate whether the gender of musicians was related to scores across the commitment scales, the Occupational Stress Inventory (OSI) dimensions, and the NEO PI-R dimensions. In those analyses that were significant, the significance level of the Levene's test ranged from .20 to .85. Given this, and that the sample sizes for each test were unequal, equal variances were not assumed and the appropriate t values were reported.

No significant differences were found between gender and either career commitment or recreational commitment, or gender and the three major dimensions of the OSI. Significant test results were however found between gender and two of the OSI subscales, rational/ cognitive coping and vocational strain, and two NEO PI-R dimensions.

The significant results for rational/cognitive coping and gender were $t(21.85) = -2.65$, $p = .015$, indicating that females ($M = 39.33$, $SD = 5.91$) have greater rational/cognitive coping skills than males ($M = 33.45$, $SD = 5.72$). The eta square index indicated that 21% of the variance of the rational/cognitive coping variable was accounted for by whether or not a participant was male or female. This suggests a moderately strong relationship.

In terms of vocational strain, the significant test results, $t(20.88) = 2.26$, $p = .034$, indicate that males experience greater vocational strain ($M = 17.36$, $SD = 3.98$) than do females ($M = 13.94$, $SD = 3.89$). The eta square index indicated that whether a participant was male or female accounted for 6% of the variance of the vocational strain variable, suggesting a small, weak relationship.

Of the five NEO PI-R dimensions, two showed significant t test results. The test was significant firstly with agreeableness, $t(42.96) = -4.44, p = .001$. This indicated that male musicians ($M = 113.42, SD = 11.02$) on average, were less agreeable than female musicians ($M = 128.52, SD = 13.03$). The eta square index indicated a fairly strong relationship in that 28% of the variance of the agreeableness variable was accounted for by whether or not a participant was male or female.

The NEO PI-R dimension of conscientiousness also yielded significant results, $t(41.50) = -3.23, p = .002$. These results indicate that male musicians ($M = 113.00, SD = 15.33$) are less conscientious than female musicians ($M = 127.94, SD = 17.29$). Examination of the eta square index indicated another moderately strong relationship. 17% of the variance of the conscientiousness variable was accounted for by whether or not a participant was male or female.

Analyses of Variance

Analyses of variances were conducted to evaluate the relationships between the demographic variables of role, age, marital status, instrument group, music related education, and non-music related education, and each of the scale variables. Limited relationships were found. Only two of the demographic variables indicated significant relationships with scale variables; marital status and music related education.

The independent variable of marital status had five levels: single, married, de facto, divorced, and widow. A problem arose in that one of the levels, widow, had fewer than two cases, making post hoc analyses not possible. To account for this, this level was omitted from the analyses in this instance.

A one-way analysis conducted between marital status and the NEO PI-R dimension agreeableness was significant, $F(3,46) = 3.62, p = .02$. The strength of the relationship, as assessed by η^2 , was moderately strong, with marital status accounting for 19% of the variance in agreeableness.

Follow-up tests were conducted to evaluate pairwise differences among the means. The test of homogeneity of variance was non-significant, $p = .412$. Because there may be a lack of power associated with the test due to the small group size ($n = 50$), the results of the homogeneity test do not necessarily imply that there are no differences in the population variances. Taking this into account, and given that the

variances among the four groups ranged from 5.51 to 14.84 it was not assumed that the variances were homogenous and post hoc comparisons were conducted using Dunnett's C test. This test does not assume, or require equal variances among the four groups (Green, Salkind, & Akey, 1997). One significant difference emerged, and that was between single musicians and divorced musicians ($p = .05$). It was found that divorced musicians were significantly more agreeable than single musicians. There were no significant differences between the other levels.

Significant relationships were also found between the demographic variable of music related education and two scale variables. However, the same problem arose as with marital status, in that one of the levels, registered music teacher, had fewer than two cases, making post hoc analyses not possible. Again, to account for this, this level was omitted from the analyses in this instance.

A one-way analysis conducted between music related education and the OSI subscale of psychological strain was significant, $F(4, 20) = 5.98, p = .002$. The strength of the relationship, as assessed by η^2 , was extremely strong, with music related education accounting for 55% of the variance in psychological strain.

Follow-up tests were conducted to evaluate pairwise differences among the means. The test of homogeneity of variance was non-significant, $p = .075$. Taking into consideration the possible lack of power associated with the test due to the small group size ($n = 25$), again the results of the homogeneity test do not necessarily imply that there are no differences in the populations variances. It was not assumed that the variances were homogenous, given that the variances among the four groups ranged from 19.88 to 34.69, therefore post hoc comparisons were conducted using Dunnett's C test. There was one significant difference between musicians with grade 8 and those with their performers/teachers diploma ($p = .05$). Musicians with grade 8 were found to have significantly higher levels of psychological strain than musicians with their teachers or performers diploma. No other significant differences emerged between the other levels.

A one-way analysis conducted between music related education and neuroticism, a dimension of the NEO PI-R was significant, $F(5,35) = 4.81, p = .002$. The results indicated that music related education accounted for 41% of the variance in neuroticism ($\eta^2 = .407$), thus indicating a very strong relationship.

In order to evaluate pairwise differences among the means, follow-up tests

were conducted. Levene's test of homogeneity of variance was non-significant, $p = .857$. This could have been influenced, again by the small group size ($n = 41$). Also, given that the variances ranged from 9.90 to 16.26 among the four groups it could not be assumed that the variances were homogenous, thus again post hoc comparison were conducted using Dunnett's C test. One significant difference emerged, and that was again between musicians with grade 8 and those with their performers/teachers diploma ($p = .05$). It was found that musicians with grade 8 had significantly higher levels of neuroticism than musicians with a teachers or performers diploma.

Multiple Regression

Multiple regression analyses were conducted to investigate whether any of the NEO PI-R dimensions predicted occupational stress, personal strain, or coping resources. The linear regression procedure was used, and of the analyses conducted one significant result was found.

The significant result was found with the multiple regression analysis which was conducted to evaluate how well personality predicted coping resource levels. The predictors were the five dimensions of the NEO PI-R, and the criterion variable was the coping resources index.

The solution indicated that the linear combination of personality measures was significantly related to the coping resources index, $F(5,21) = 5.27$, $p = .003$. The sample multiple correlation coefficient was .75, indicating that the linear combination of personality measures accounts for approximately 56% of the variance of the coping resources index in the present sample.

All the bivariate correlations between the personality dimensions and coping resources were positive, with the exception of neuroticism. With regard to the relative strength of the individual predictors, neuroticism had the strongest statistically significant relationship with psychological strain ($r = -.681$, $p < .01$). Conscientiousness and extroversion also had statistically significant relationships with the coping resources index, although not as strong ($r = .423$ and $r = .422$, respectively, $p < .05$).

It is tempting to assert, on the basis of these correlational analyses, that the most useful predictor of coping resources is the NEO PI-R dimension of neuroticism. On its own it accounts for 46% ($-.681^2 = .46$) of the variance of the coping resources

index. The other variables combined contribute only an additional 10% (56% - 46% = 10%).

Factor Analysis

Factor analysis procedures were applied to the career commitment and recreational commitment scales. Firstly however, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to determine whether factor analysis was appropriate. The KMO for career commitment was satisfactory (.77), but not for recreational commitment (.57) (Norusis, 1992). Given this it was decided not to conduct factor analyses on recreational commitment.

With the career commitment scale principal components analysis (PCA) procedures were used to analyse the item pools in order to select a reduced number of appropriate items (Merenda, 1997), and then a varimax rotation procedure was utilised to maximise the variance of the loadings within factors, and across variables (Tabachnick & Fidell, 1989). In each case, enough factors were retained for an adequate fit, but not so many that parsimony is lost.

The Career Commitment Scale

Results from PCA indicated that the 20 commitment scores could be interpreted more meaningfully for career commitment by collapsing many of the predictor items. From the analysis five factors were selected to be retained because these five accounted for an acceptable amount of the total variance (79%). The number of factors to be retained were selected according to two criteria; eigenvalues greater than one, and the scree plot test (Tabachnick & Fidell, 1989). All five factors had eigenvalues greater than one. A scree plot test highlighted those factors as being adequate and sufficient. That is, a line could be drawn which encompassed the first five points, and then another line was required for the rest of the points. Thus, initially five factors were retained.

Following PCA the 20 career commitment items were rotated using a varimax rotation procedure. The rotated solution also yielded five factors. Further criteria were applied at this stage to obtain the number of variables to retain so that maximum variance was accounted for, but not so that parsimony was lost. Other than the criteria utilised at the PCA stage, only items with correlations above .5 were retained

(Merenda, 1997), and careful consideration was given to those factors which had only two items loading on to it. This consideration was in terms of a) the item's correlations with each other, and b) their correlations with other items (Tabachnick & Fidell, 1989).

Given this criteria, factors 4 and 5 were assessed closely as each had only two items loading on to them. With regard to factor 4, item 10 correlated with other factors but did not correlate highly with item 16, the other item loading on to factor 4. This makes this factor rather unreliable (Tabachnick & Fidell, 1989), so this factor was dropped. This was also the case with Factor 5. Of the two items loading onto this factor, items 3 and 5, item 3 correlated highly only with item 5, however item 5 also correlated highly with a number of other items. This provided further support for a three factor solution.

Items that did not load on to any factor were omitted from further analysis. This included items 3, 5, 10, and 16. Item 19 although loading onto factor 1, had a correlation lower than .5, therefore it was omitted from further analysis.

Applying the above criteria resulted in the retention of only three factors, which does reduce the amount of variance accounted for in the factor analysis. With five factors the amount of variance explained was 79%. Reducing the number of factors to three means that 61% of the variance is explained. However, it is likely to be a far more parsimonious solution.

The resultant factors appear to have identifiable clusterings of variables that have sensible interpretations. Table 15 presents the three factors, the items within them, and the constructs that they have been identified to represent.

The first factor was termed "Personal Costs" because of the high loadings on variables that relate directly to personal problems with a career in music. This included item numbers 16 (.989), 6 (.989), 8 (.985), 9 (.985), 7 (.984), and 15 (.539). 31% of the item variance was accounted for by Factor 1.

Factor 2, designated as "Personal Attachment," included items related to participants personal involvement with their music. It included items 11 (.876), 14 (.806), 13 (.772), 4 (.675), and 12 (.551). Factor 2 accounted for 16% of the item variance.

Table 15

Career Commitment - The five factors identified through PCA & VARIMAX rotation procedures

Item	Factor 1 Personal Costs	Factor 2 Personal Attachment	Factor 3 Personal Meaning
I do not achieve a high degree of personal satisfaction from this line of work/career field (Item 16).	.989		
I do not often think about my personal development in this line of work/career field (Item 6).	.989		
Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it (Item 8).	.985		
The discomforts associated with my line of work/career field sometimes seems too great (Item 9).	.985		
The costs associated with my line of work/career field sometimes seem too great (Item 7).	.984		
I am disappointed that I ever entered music as a line of work/career field (Item 15).	.539		
I definitely want a career for myself in the music industry (Item 11).		.876	
This is the ideal line of work/career field for a work life (Item 14).		.806	
I like this line of work/career field too well to give it up (Item 13).		.772	
I have created a plan for my development in this line of work/career field (Item 4).		.675	
If I had all the money I needed with out working, I would probably still continue to work in the music field (Item 12).		.551	
This line of work/career field has a great deal of personal meaning to me (Item 2).			.838
This line of work/career field is an important part of who I am (Item 1).			.837
My personal development involves continuously learning and developing my skills/knowledge (Item 18).			.751
EXPLAINED VARIANCE	31%	16%	14%
CUMULATIVE VARIANCE	31%	47%	61%

The third factor was termed “Personal Meaning”. It had high loadings on items related to what a career in music means to the participant. This factor was comprised of items 2 (.838), 1 (.837), and 18 (.751). Fourteen percent of the item variance was accounted for by Factor 3.

Overall it is apparent that to account for an adequate amount of the total variance in career commitment, three factors are required. In effect then, factor analysis reduces the number of variables involved in the prediction of career commitment. Four items were removed completely, and of the remaining items, all load onto only one factor. This analysis makes the suggestion that career commitment can be assessed according to these varying groups of items, each of which offers different commitment information.

Given the clear-cut factor analysis that emerged, it was decided to compute additional analyses to investigate possible relationships between the three identified commitment factors, personal costs, personal attachment, and personal meaning, and some of the key demographic variables. These are discussed below.

Descriptive Analyses

The means, standard deviations, ranges, and internal consistency results are presented in Table 16. Although comparing the factor scales is difficult due to the differences in item numbers within them, results can be discussed in terms of the possible ranges of each factor scale. On the surface it appears that personal costs has the highest mean score, and personal meaning has the lowest mean score. Personal attachment falls in between the other two factor scales. The reliabilities range from .68 to .84, suggesting good reliability.

Table 16

The Commitment Factors: Descriptive Statistics (n = 31)

Factor	Possible Range		Mean	Std. Deviation	Reliability (α)
	Low	High			
Personal Costs	0	30	13.23	4.52	.68
Personal Attachment	0	25	9.81	3.67	.84
Personal Meaning	0	15	4.55	1.80	.81

NOTE: Range varies due to the different number of items in each factor

Independent-samples t tests

Independent-samples t tests were conducted to evaluate whether the gender of musicians was related to scores across the three factors. One significant result was

found. The Levene's test did not indicate significance, and given this, and the fact that the group sizes were not equal, equal variances were not assumed. Thus the appropriate t values were reported.

The significant results related to the factor personal costs. The results were $t(23.83) = 2.16, p = .041$. This indicates that males ($M = 15.40, SD = 3.41$) experience greater personal costs with pursuing a career in music than do females ($M = 12.19, SD = 4.69$). The eta square index indicated that whether a participant was male or female accounted for 14% of the variance of the personal costs factor, suggesting a moderate relationship.

Analyses of Variance

In order to further investigate the relationships between the demographics variables marital status, instrument group, music related education, and non-music related education and the three commitment factors, analyses of variance were conducted. Two of the demographic variables had significant relationships with commitment factors; instrument groups and role.

The independent variable of instrument group had six levels: string, wind, brass, keyboard, percussion and other. Percussion is not included in the analysis as there were no members in this group. A problem also rose with the brass group as it had fewer than two cases, making posts hoc analyses impossible. To account for this the level of brass was omitted from the analyses in this instance.

A one-way analysis conducted between instrument groups and personal meaning was significant $F(3,25) = 5.65, p < .01$. The strength of the relationship, as assessed by η^2 , was strong, with instrument group accounting for 40% of the variance in personal meaning.

To evaluate the pairwise differences among the means follow-up tests were conducted. The test of homogeneity of variance was non-significant $p = .056$. This does not imply that there are no differences in the population variances, however. As with earlier analyses of variances it was not assumed that the variances were homogenous, and thus posts hoc comparisons were conducted using Dunnett's C test (Green et al., 1997). Two significant differences emerged. The first was between the levels of wind and other ($2.00, p = .05$). This indicated that musicians playing wind instruments experienced greater personal meaning from their work than do those

playing instruments in the other category. The second significant difference was between the of levels keyboard and other (3.13, $p = .05$) which indicated that musicians playing keyboard instruments experience greater personal meaning from their work than those in the other instrument category.

A significant relationship was also found with the variable role. This variable has five levels: professional music teacher, teacher and performer, performer with other primary income, teacher with other primary income, and teacher/performer with other primary income. As with instrument groups, this variable had one level, that of performer with other primary income, that had only one participant. In terms of analyses of variance this meant that post hoc analyses were not possible. To account for this, as done previously, the level of performer with other primary income was omitted from these analyses.

A one-way analysis conducted between role and personal meaning was significant, $F(3,25) = 5.88$, $p < .01$. The results indicated that role accounted for 41% of the variance in personal meaning ($\eta^2 = .414$), thus indicating a very strong relationship.

Follow-up tests were conducted to evaluate pairwise differences among the means. The test of homogeneity of variance was non-significant, $p = .155$. Taking into consideration the possible lack of power associated with the test due to the small group size ($n = 29$), the results of the homogeneity test does not necessarily imply that there are no differences in the populations variances. Again, it was not assumed that the variances were homogenous and post hoc comparison were conducted using Dunnett's C test. There was one significant difference that emerged between professional music teachers and teachers and performers with another primary income ($p = .05$). It was found that professional music teachers experience significantly greater personal meaning from their work than do teachers and performers who have another primary income. No other significant differences emerged between the other levels.

Correlational Analyses

It can be seen from Table 17 that there is a significant correlation between personal costs and personal attachment ($r = .506$, $p < .01$) and also between personal attachment and personal meaning ($r = .469$, $p < .01$). There were no significant

correlations between the three commitment factors and the OSI dimensions. Interestingly however, personal meaning correlated negatively with all three OSI dimensions. Also, personal strains correlated negatively with the three commitment factors. There were significant correlations between the commitment factors and occupational stress subscales. Personal costs correlated significantly with role ambiguity ($r = .487, p < .01$), role boundary ($r = .375, p < .01$), and physical environment ($r = .381, p < .05$). Personal attachment also correlated significantly with physical environment ($r = .438, p < .05$). There were no significant relationships between the NEO PI-R dimensions and any of the commitment factors.

Table 17

Pearson product-moment correlations between Personal Costs, Personal Attachment, and Personal Meaning and the OSI Dimensions, OSI Subscales, and NEO PI-R

Dimensions

	Personal Costs	Personal Attachment	Personal Meaning
Personal Costs (PC)			
Personal Attachment (PA)	.506**		
Personal Meaning (PM)	.180	.469**	
Role Overload	.236	.341	-.072
Role Insufficiency	.348	.138	-.065
Role Ambiguity	.487**	.333	.217
Role Boundary	.375**	.317	-.019
Responsibility	.130	-.189	-.240
Physical Environment	.381*	.438*	.045
Occupational Stress (OS)	.372	.095	-.204
Vocational Strain	-.034	-.163	-.084
Psychological Strain	-.125	.084	.051
Interpersonal Strain	.073	.076	.184
Physical Strain	.149	.317	.051
Personal Strain (PS)	-.144	-.043	-.040
Recreation	.220	.233	-.017
Self-Care	.208	-.063	-.318
Social Support	.218	.169	.004
Rational/Cognitive Coping	-.359	-.181	-.195
Coping Resources (CR)	.130	.059	-.230
Agreeableness (A)	.114	.152	.036
Conscientiousness (C)	-.182	.051	-.211
Extroversion (E)	.039	.080	-.078
Neuroticism (N)	-.163	.146	.210
Openness (O)	-.121	-.277	-.238

NOTE: Only new correlations have been included. Correlations discussed previously have been omitted.

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

CHAPTER SEVEN: DISCUSSION

Discussion of Results

The overall findings of the present study are exploratory in nature as previous research with musicians has been limited, hence many of the hypotheses investigated were not developed from previous research. The results provide preliminary evidence for the career commitment, and the levels of stress, strain, and coping resources of New Zealand musicians. The results also provide characteristic profiles of the sample of musicians.

The findings suggest that this sample of musicians, as a group, are committed to their work, and do not have the extensive stress issues suggested in the literature (Cooper & Wills, 1989; Steptoe, 1989). Further, the personality profiles of these musicians differ substantially from personality profiles generated in previous research (Cooper & Wills, 1989; Kemp, 1982). The results of the present study will be discussed in relation to the proposed research questions. These are addressed in the following sections.

The Commitment of Musicians to their Careers

The results indicate that this New Zealand sample of musicians are committed to music, whether as their career or as a recreational activity. Given the vulnerable and unpredictable nature of the industry (McAuliffe et al., 1977) perhaps musicians are committed to music, whether as an aspect of their career, or as a recreational activity, because they have to be in order to be successful. High levels of commitment may be a criteria for achieving goals in the music industry. Also, it could be argued that it is logical for the respondents to be committed to music if it is a recreational activity, because this implies that they do it for choice, hence they are committed. This result can not be discussed in relation to previous research however, because although general research has been conducted in relation to career issues of musicians (eg. McAuliffe et al., 1977; Schneider, 1990; Smith & Murphy, 1984) none has been conducted addressing the specific issue of career commitment.

Differences in Commitment Across Different Musicians Role Groups

There were no significant differences across the role groups. However, the

descriptive statistics indicate that professional music teachers, and teachers who also perform but earn their primary income from another occupation, are more committed to their musical careers than musicians who structure music into their lives in some other manner. The least committed musicians appeared to be those who only teach and perform. Of those musicians who consider music to be a recreational activity, again professional music teachers were the most committed, and interestingly, teachers who also perform but have another form of primary income, were the least committed.

Again lack of previous research means that this is exploratory research which has no literature to discuss it against. Further it is difficult to discern reasons as to why the participant groups are committed or not committed because a mix of teachers and performers have emerged as being more committed. The teaching aspect is understandable because teachers have regular students and hence regular work, therefore music teachers must be committed in order to maintain their work. This could suggest a commitment to an income however, rather than a commitment to music. The finding that those musicians who teach and perform were the least committed is interesting. Intuitively, one could suspect performers of being less committed as their situation is usually somewhat less stable. In so far as the lower commitment levels are concerned, the performers are explainable in terms of the previous possible explanation, however it is difficult to explain the presence of teachers in the low commitment category.

In terms of recreational commitment, perhaps the teachers and performers with another primary income were the lowest in commitment due to trying to fit many things into their lives. Being busy may make them less committed to music as a recreational activity.

Commitment Levels & Demographic Variables

Of the demographic variables investigated in the present study, no significant relationships were found between demographic variables and either career commitment or recreational commitment. This is inconsistent with previous research. For example, Mathieu and Zajac (1990) found that the demographic variables of age, gender, and marital status were related to commitment. Smith and Murphy (1984) found with orchestral musicians that the commitment of players increased when they got married. In the present study the differing results may have arisen as a result of a

differing commitment focus and measurement. Whereas the present study specifically focuses on career commitment, Mathieu and Zajac (1990) were focusing on organisational commitment, and Smith and Murphy (1984) viewed commitment in terms of the participants' opinions regarding orchestral careers.

The Occupational Stress, Personal Strain, and Coping Resources of Musicians

Considering the overall results for each OSI dimension, in relation to the transformed score profiles provided in the Occupational Stress Inventory Manual (Osipow & Spokane, 1992) (see Appendix C), the results of the present study suggest that this sample of musicians experience mixed levels of occupational stress, depending on the role, and average levels of personal strain and coping resources. Higher levels of stress appear to come from role insufficiency and responsibility. This suggests that these musicians experience feelings that their career is not progressing as hoped, and they may feel underutilised. They also experience high levels of responsibility for work and performance, may be worried about their own performance and may have poor relationships with fellow workers, or feel constantly under pressure from the public or employers (Osipow & Spokane, 1992). Research supports this, arguing that musicians constantly work with the knowledge that they are only as good as their last performance (Sternbach, 1995). Intuitively, relationship problems with other musicians make logistical sense if musicians are competing for work that is difficult to find. Also, given the pressures to always perform well, bad performances from other group members could lead to relationship problems also, especially when future work is dependent on good performances.

Of the personal strains, all the transformed scores were average in terms of the OSI profiles (Osipow & Spokane, 1992) with the exception of vocational strain. This transformed score was much lower than the other personal strain subscales, indicating that this group of musicians have a good attitude towards their work, and are happy with the quality of their work. Given the relatively good commitment results in the present study, this result is not surprising. It is logical to expect that individuals with a good attitude toward their work are more likely to be committed to their work.

All of the transformed scores for the coping resource subscales were average in range, suggesting that this group of musicians are neither exceptional nor bad at coping with stress, but have reasonable skills in this area. This is interesting as

previous research asserts that often musicians have maladaptive coping techniques, such as tendencies to consume alcohol (Steptoe, 1989).

It was interesting to note the generally average scores across the OSI dimensions and subscales. This greatly contrasts previous research which emphasises the stress issues of musicians (Cooper & Wills, 1989; Steptoe, 1989; Sternbach, 1995). Although the differences found maybe genuine, the possibility should be considered that the reason for the differences lies in the stress measurement tool utilised in the present study. Perhaps the OSI, with this particular sample was not sensitive enough to detect the specific issues of the musicians.

Differences in Occupational Stress, Personal Strain, and Coping Resources Across Different Musicians Role Groups

In terms of the individual role groups examined in this research, all of them displayed low levels of occupational stress when considering the possible range of scores, especially the “performer-other income” group, which displayed the lowest. This is interesting because previous research suggests that musicians experience high levels of occupational stress, especially among performing musicians (Cooper & Wills, 1989; Sternbach, 1995). Perhaps this is not the case with this sample because the research that argued this primarily focused only on performing musicians who were earning their primary income from a performing career (Cooper & Wills, 1989). In the present research there were no participants in this category. The performers all had another supplementary income whether that be teaching or something else.

Levels of personal strains were also very low across all role groups. The group of “teacher and performer-other income” displayed the highest ability to cope with stressors and strains, whilst the participants in the “performer-other” group indicated the lowest levels of coping resources. However, considering the possible range of scores, these were still within the middle of the coping resources range. No significant differences were found across the three OSI dimensions however.

Considering the OSI subscale results in light of the transformed scores profile (Osipow & Spokane, 1992), all four role groups experienced high levels of occupational strain in the areas of role insufficiency and responsibility. This is consistent with the overall observations regarding the occupational stress subscales in the previous section. These results suggest the musicians across all role groups experience a poor fit between the job they performing and the skills they have. This is

understandable given the research purporting that musicians often have to do any music work available to receive an income from music (Schneider, 1990). If these musicians are settling for work that is not reflective of their skills, it would be expected that they would have higher scores on the role insufficiency subscale. This could also account for differences in commitment across the musician role groups.

The role groups of “teacher and performer” and “teacher and performer- other income” also displayed high transformed scores on physical environment which suggests that these participants may be exposed to high levels of noise, or other irritants on a regular basis. Exposure to continuously high levels of noise is probable given the nature of their work, thus this result makes logical sense. This result suggests that these groups may also have a continuously erratic work schedule due to the performing role (Osipow & Spokane, 1992), which makes intuitive sense given that these two groups are combining more than one occupational role.

From analysis of the transformed profiles (Osipow & Spokane, 1992) of the role groups on the personal strains subscales, it is apparent that all role groups experience low to average psychological strain. This suggests that this sample of musicians has limited emotional/psychological issues, experience some disruptions in interpersonal relationships, and some complaints of physical illness (Osipow & Spokane, 1992). Again these results contrast with previous research which claims that musicians are susceptible to large amounts of stress and strain related to their work (Steptoe, 1989). Given that the literature argues that musicians have a number of prevalent psychological issues resulting from the stressors they face, it should be questioned as to why similar results were not found. It may be possible that this sample of musicians did not have such issues, however, it may be that in this particular work domain the OSI is not sensitive enough to detect issues prevalent in previous research. Perhaps the use of some qualitative questions in this area may have provided different information.

Considering the coping resource subscales in light of transformed scores (Osipow & Spokane, 1992), the role group of “performer-other income” displayed the lowest coping resources. The results suggested that this role group has lower social support and lower rational/cognitive coping skills. This lower social support may be the result of elements of their work such as travel which leads to separation from family and friends, or it may be related to back stabbing that occurs among colleagues (Cooper & Wills, 1989; Sternbach, 1995).

The role group of “teacher and performer- other income,” have a great deal more skills in the coping resources area than the other role groups, with the exception of the subscale self-care which is relative in level to the other role groups. The role group of “teacher and performer- other income” displays the strongest ability to relax and take time out with recreational activities, have a strong social support network surrounding them, and have good skills in problem solving, prioritising, and organising work schedules (Osipow & Spokane, 1992).

It could be argued that this group must have such skills in order to be involved in teaching and performing music, as well as earning their primary income from another occupation. Without such skills it would be very difficult to be involved in, and structure so many roles into their lives. Their likely busy schedule may be reflective of their lower score on self-care which suggests less focus on getting regular sleep, doing regular exercise, and having a proper diet (Osipow & Spokane, 1992). Research supports this notion, arguing that the unstable nature of the work often means that at some points the work is very intensive and self-care behaviours such as regular sleep, and regular exercise are not possible (Sternbach, 1995). Alternatively, this group may have less financial concerns than the other role groups, and as a result may be able to take time out.

Occupational Stress, Personal Strain, Coping Resources and Demographic Variables

Although no significant differences were found between demographic variables and the overall dimensions of the Occupational Stress Inventory (OSI), significant differences were found between the variable gender and two of the OSI subscales; rational/cognitive coping, and vocational strain. Within the sample of the present study, females had greater rational/cognitive coping skills than did males. Females also experienced less vocational strain than males did. The literature has not addressed gender differences, however the combination of these results has intuitive appeal. It could be logical to expect that if females have greater problem solving and prioritising skills than males, they are likely to experience better attitudes towards their work and have more positive experiences at work. If individuals do not have such organisational skills they are more likely to be disorganised and encounter problems such as time management issues. It would be logical to expect that this situation would be detrimental to attitudes about work, and lead to negative work experiences.

It was also found that there was a significant difference between music related education on the OSI subscale psychological strain. In the present study, individuals with their performers or teachers diploma experience less psychological strain than did individuals with grade 8. That is, they experience less emotional and psychological problems, are less likely to be depressed and unhappy, and are less likely to think that things are not going well. It could be questioned as to whether this is because individuals with their performers or teachers diplomas have greater skills and knowledge, and this combined with their qualification on paper helps them to obtain work, or retain work over less qualified musicians. If this is the case, then this result is quite understandable and could be expected. The levels of musical education of musicians do not appear to have been considered within previous research, therefore making this an exploratory aspect of the present study.

Relationships Between Occupational Stress, Personal Strains, and Coping Resources

Of the relationships between the overall OSI dimensions, none were found to be significant. Interestingly, the relationship between occupational stress and personal strain was negative, suggesting that higher levels of stress were related to lower levels of strain. This was inconsistent with findings by Osipow and Spokane (1992) which reports a positive relationship between occupational stress and personal strain. In their research they also found negative relationships between occupational stress and coping resources, and personal strain and coping resources. In the present study personal strain was negatively correlated with coping resources, however occupational stress was positively correlated with coping resources. Further, all of these findings by Osipow and Spokane were significant (albeit some weak) whilst the present findings were not. As stated previously, these results could differ if the OSI was not a sensitive enough tool to use for measuring stress issues with this sample. It may not provide a complete picture of the stress, strain, and coping of this sample of musicians.

A number of significant relationships did emerge among the OSI subscales however. Most notably, it appears that musicians experiencing increasing workloads, are also experiencing high levels of noise, disturbance and distraction in their working environments. The results also indicate that musicians feeling caught between supervisory demands and factions are also experiencing conflicts with demands of responsibility, and concerns about the performance of others. This is consistent with

previous research with musicians, but not in the direction one would assume. Their concern is not necessarily for others to do well, but previous research suggests that musicians are in fact concerned with others being much better than them, thus putting their jobs in jeopardy (Sternbach, 1995).

Further, musicians experiencing high interpersonal strain are also experiencing higher levels of physical strain, meaning that as well as dealing with problems with friends, family, or co-workers, these musicians are also experiencing concerns about their health, and have a number of somatic complaints. Intuitively, this makes sense because if an individual has great interpersonal problems this creates a stressful situation, and somatic complaints are argued to be an outcome of stressful encounters (Revicki et al., 1991). This supports the work of Fishbein et al. (1985, cited in Sternbach, 1995) who found, in their research, that 82% of their participants reported at least one medical problem. Research investigating links between interpersonal strain and physical strain has not been previously conducted with musicians however.

Finally, it appears that the musicians likely to report taking advantage of recreational opportunities are also likely to have strong social support networks. Although no previous research has been conducted addressing these issues, this may be logical because the majority of recreational activities have some social aspect therefore one could expect musicians engaging in recreational activities to have increased social support.

In terms of the individual subscales, the majority of the correlations of the present study differed from those found by Osipow and Spokane (1992), often in significance and direction. Unfortunately it can not be determined from the data available whether this difference is due to something unique about the sample used, the modifications made to the OSI to make it more applicable to the present sample, or because of possible sensitivity issues surrounding the use of the OSI with this sample.

Career/Recreational Commitment and Occupational Stress, Personal Strain, and Coping Resources

A number of significant relationships were found between career commitment and the OSI subscales. No significant relationships between recreational commitment and the OSI dimensions and subscales were found however.

Career commitment was strongly correlated with two OSI subscales; role

ambiguity and physical environment. Both of the relationships were positive indicating that decreases in career commitment are matched with increases in those subscales (given that as commitment scores increase commitment decreases). Assessment of the frequencies of answers to questions within the role ambiguity subscale indicates that this sample of musicians are keenly aware of the standards of personal behaviour required in their work, but are uncertain about what they are supposed to accomplish in the work. They are also unsure about how to approach tasks, and find the priorities of their work unclear. Within the physical environment subscale it appears that the key environmental issues are working in conditions of continual noise, and working in personal isolation for periods of time. The more these musicians experience feelings related to these two subscales, the less committed they are.

This has not been addressed previously in research therefore the results are unable to be discussed in terms of other research. However, logically it could be expected that increases in not knowing how to approach tasks, or what is expected of one, and exposure to elements such as noise (Osipow & Spokane, 1992), would be accompanied by a decrease in career commitment.

Personality and Musicians

A preliminary analysis of the results suggests that overall this sample has fairly high scores on the agreeableness, conscientiousness, and openness to experience dimensions. Lower mean scores were found on the extroversion and neuroticism dimensions, of which neuroticism was the lowest. Comparisons with norm scores (Costa & McCrae, 1992) (see Appendix C) indicates however that the scores for all personality dimensions in this sample fall in the average range, with exception of openness to experience which was higher. Neuroticism was a marginal close second. Conscientiousness was the lowest, however conscientiousness, extroversion, and agreeableness were all fairly similar.

An assessment of the overall transformed score profile suggests that this group of musicians is an imaginative group with preferences for variety and aesthetic sensitivity. They are likely to have unconventional values. Overall the profile suggests that this group of musicians has a tendency to be more impulsive and experience more negative affects including fear, anxiety, and anger. These musicians do not appear to be extreme extroverts, but do appear to enjoy working with people.

They are fairly assertive, active and talkative. The profile suggests that this group of people are generally eager to help others and are fundamentally altruistic. This group of musicians also appears to be reasonably determined and purposeful by nature, with a tendency to be workaholics.

Previous research has not discussed the characteristic profiles of musicians as a general group, but has looked at personality characteristics in terms of two separate groups, teachers and performers (eg. Kemp, 1982).

Differences in Personality Across Different Musicians Role Groups

Despite no significant differences, the personality characteristics of musicians appear to vary depending upon how they structure music into their lives. An analysis of transformed scores (see appendix C), using the profiles developed by McCrae and Costa (1992) suggests interesting trends. Looking at the mix of role group profiles, it is clear that all role groups have higher levels of neuroticism and openness to experience scores than scores on any other dimension, as discussed in the previous section. Thus, as a group they tend to be rather anxious, depressed, and impulsive, and highly concerned with feelings, actions, ideas, and values. Considering each dimension individually reveals interesting findings.

Within the neuroticism dimension, music teachers with another primary income are the most anxious, depressed, emotionally unstable group, whilst professional music teachers and teachers who also perform are the least neurotic. The literature discusses performers as having high levels of neuroticism (Kemp, 1981), which is not consistent with the findings of the present study. It is difficult to surmise as to why this would be so contrasting. Perhaps it reflects changes in musician's profiles in the years since Kemp's (1981) research. However, to ascertain this, further research would be necessary.

On the extraversion dimension all subgroups of musicians are similar – they are all average in their extraversion. Previous research highlights performers as being less extroverted than music teachers are (Kemp, 1982), therefore this finding is also inconsistent with previous research. The differences may be because the research by Kemp was conducted sixteen years ago, and therefore the personality profiles of musicians may have changed.

Performers who have another form of primary income are the most open to experience, however they are followed closely by professional music teachers. The

lowest on this dimension were music teachers who have a primary income from another occupation. Intuitively, it would make sense for performers to be more open to experience than music teachers, simply because of the dynamic, changing environments performers are likely to be working in. However, professional music teachers are close behind the performers which is interesting, and more difficult to explain. This would warrant further investigation to explain. Previous research does not appear to consider this personality dimension.

All the subgroups were of average agreeableness, with the exception of teachers who also perform, but get their primary income from another occupation. They were less agreeable than the other subgroups. Professional music teachers were the most agreeable subgroup. Although research has not addressed this previously, intuitively it would make sense for music teachers to be more altruistic, and tender-minded. This is necessary for ongoing positive interpersonal relations which is required in teaching in order to retain students and develop a learning environment. It may be that teachers who also perform, but obtain their primary income from elsewhere are the least agreeable because of the pressure they are under with structuring multiple roles into their lives.

The subgroups were close in conscientiousness, although music teachers who get their primary income from another form of work were much less conscientious than the other groups. The most conscientious subgroup, although only marginally, were professional music teachers. This also has not been investigated in previous research, however intuitively this may be because they are dependent on their teaching for their income, and are therefore more conscientious with the hope of more easily retaining students.

Overall it is clear that previous research has large gaps, and as a result the present study has been exploratory on many dimensions of personality. Overall the personality results of the present study did differ from the previous research that has been conducted however. It could be that different results emerged because the mix of role groups investigated in the present study has not been previously examined.

Personality and Demographic Variables

Significant personality differences were found with the demographic variables gender, marital status, and music related education. Male musicians were less agreeable and less conscientious than female musicians were. Divorced musicians

were found to be significantly more agreeable than single musicians. Further, individuals with a grade 8 qualification were more neurotic than individuals who have a performers or teachers diploma. Unfortunately previous personality literature does not distinguish between male and female musicians, marital status or music related education, therefore these results can not be discussed in relation to the literature.

Although unravelling reasons why these results emerged is difficult, the difference between single and divorced musicians may be attempted to be explained. Research argues that interpersonal relationships can be difficult for musicians (Sternbach, 1995). Divorced musicians may be more agreeable because they have worked through problematic relationships and know how or what they want in the future, and are more accepting of situations such as long work hours and travel. Conversely, single musicians may be less agreeable because they are battling with balancing work and relationships in a more experimental manner. Alternatively, it may be that single musicians are single because they are too disagreeable to develop relationships.

Interestingly previous research asserts that there are personality differences among musicians who play different instruments (Kemp, 1981). This finding was not replicated in the present study.

Relationships Between Personality Dimensions

The results of the present study indicate that high levels of agreeableness are indicative of high levels of conscientiousness, and low levels of neuroticism and openness. Individuals high on the conscientiousness dimension are less neurotic, and those scoring highly on openness to experience are more extroverted. The directions if these relationships make sense intuitively, because it could be expected that more agreeable people are likely to be less anxious and depressed. Further, it is logical to expect that individuals who are open to experience are more extroverted because they would have to be outgoing in order to want to experience new things.

In terms of previous research with musicians, such relationships between personality dimensions have not been investigated. However, when the results of the present study are compared to the dimension intercorrelations reported in Costa et al. (1991), it was found that almost all the correlations among the dimensions were in the same direction as the results of the present study. The exceptions were the relationships between extraversion and agreeableness and extraversion and

conscientiousness, which were negative in the present study, but positive in the study presented in Costa et al. (1991). These differences may indicate prevalent personality differences between musicians and other samples. The differences may be indicative of musicians as a group.

It was noted that two correlations were the same across the present study and that described by Costa et al. (1991). They were the correlations between openness to experience and extraversion, and openness to experience and neuroticism.

Relationships Between Personality and Career Commitment, Recreational Commitment, Occupational Stress, Psychological Strain, and Coping Resources

There were no significant relationships that emerged between personality and either career commitment or recreational commitment. This may be because of the small sample size. Perhaps with a larger sample different results would emerge, although given the total population the sample was of adequate size. This warrants further consideration in later research.

Among the OSI components a number of significant relationships did emerge. Of the overall dimensions, only the coping resources dimension correlated significantly with NEO PI-R dimensions. High levels of coping resources were related to being more extroverted and conscientious, and having lower levels of anxiety, depression, and higher overall emotional stability. Intuitively these relationships make sense. It would be logical to expect that a musician who enjoys working with people, and is conscientious about work, and doesn't often have feelings of anxiety and depression, for example, would be able to cope more effectively with stressful situations. Previous research found that individuals with higher levels of neuroticism had higher levels of subjective occupational stress (Mughal, Walsh, & Wilding, 1995) or strain (Noor, 1997). Although the present study does not clearly support these findings, they are somewhat implied when one considers the direction of the relationships between personality and the stress and strain dimensions of the OSI.

Interesting correlations emerged between a number of OSI subscales and NEO PI-R dimensions. The results indicated that high scores on the extraversion dimension were related to high scores on the physical environments subscale. This suggests that musicians working in noisy, distracting, potentially aggravating environments are more extroverted. This makes sense intuitively as these musicians would be more likely to enjoy being among groups of people and being in interactive, environments.

It appears that musicians experiencing higher levels of psychological strain are more anxious, depressed, and have lower emotional and psychological stability. The results also suggest that musicians high on the conscientiousness dimension have very good problem solving and prioritising abilities, and those with limited social support networks show higher levels of neuroticism. Relationships between stress and personality have not been addressed in previous research with musicians. However, these results contrast with research conducted by Day and Bedeian (1995) who investigated occupational stress in relation to extraversion, agreeableness and conscientiousness in a sample of African American nursing service employees. They found no significant relationships between occupational stress and any of the personality factors.

The significant relationships with subscales of the coping resources dimension suggest differences in coping strategies across conscientiousness, extraversion, and neuroticism. High scorers on conscientiousness tend to have higher rational/cognitive coping skills and are more likely to look after themselves in terms of maintaining a healthy diet and getting adequate sleep. The musicians high on the extraversion dimension have higher levels of social support, which is logical as outgoing people are more likely to develop a social support network. Conversely, the higher scorers on the neuroticism dimension have lower levels of social support and are not concerned with taking care of themselves properly. It appears logical that the more anxious, depressed, and emotional unstable individuals have less focus on eating and sleeping properly. However one may also suspect that these individuals would be more demanding of social support, which is contrary to the results here, unless of course they were withdrawing from others.

Personality as a Predictor

The results of the regression analyses indicated that the NEO PI-R dimension neuroticism makes a significant contribution to the prediction of coping resources. Thus, it appears that how musicians cope with occupational stress and personal strains may be influenced by how neurotic they are. The inverse relationship suggests that as neuroticism increases, the likelihood of an individual having good coping resources decreases. Conscientiousness and extraversion also contribute to explaining coping resources, however their contribution is not as significant. Previous literature supports these results. Noor (1997) found in multiple regression analyses that when

negative affectivity was added, in combination with perceptions of job challenge and demand, as a predictor of strain, the unique contributions of job challenge and demand dropped. Noor concluded that negative affectivity, or neuroticism, somewhat inflated the stressor-strain relationship.

Examination of Commitment Scale Factor Structure

The career commitment scale was examined to investigate the presence of any underlying constructs. The Principal Components Analysis (PCA) and Varimax rotation procedures conducted with the composite career commitment scale utilised in this study, indicated the presence of three new explainable factors which accounted for 61% of the variance. The first factor, personal costs, includes questions relating to problems, discomforts, and costs of working in the music industry. Factor 2, personal attachment, includes questions pertaining to personal involvement in the music industry, including career development plans. Personal meaning, the third factor, includes personal issues such as identification with music and personal development.

This solution explained a suitable amount of variance, but not so much that parsimony was lost. Preliminary evidence indicates good reliabilities across the three factors. Further statistical analyses were performed to evaluate relationships between the three factors and other variables investigated in the present study.

Results indicated that the personal costs to males in pursuing a career in music are greater than they are for females. Further, results indicate that a career in music had greater personal meaning for musicians who play “wind” instruments than those in the “other” category, and music also has greater personal meaning for musicians playing “keyboard” instruments than those in the “other” category. Further, music has greater personal meaning for “professional music teachers” than it does for “music teachers and performers who another primary form of income”. These areas have not previously been examined in research. However, it could be argued that the finding of lower personal meaning for the group of music teachers and performers who receive a primary income from elsewhere, makes intuitive sense. A career is quite likely to have greater personal meaning if it is an area of personal interest as well as a form of income.

The fact that personal meaning and personal attachment were significantly and positively correlated has certain intuitive appeal, however the positive correlations between personal costs and the other two factors requires questioning. On the surface,

one would think that there would a negative relationship between personal costs and the other two factors, however, careful consideration of the factors suggests otherwise. It may make sense for one's personal attachment and personal meaning to increase as personal costs increase because the more one is having to compromise and/or give up for something, the more one has invested in making the other work. Thus, the meaning it has increases, as does one's attachment to it. Previous research that addresses such issues does not exist.

The only other notable correlations occurred between personal meaning and the OSI subscales of role ambiguity and role boundary. These were significant and positive. This suggests that as personal meaning increases, so do feelings of not knowing how to get ahead, concern about evaluation, and issues regarding correct authority channels, and conflicting supervisory demands. However the results concerning the role ambiguity scale should be treated with caution given it's questionable reliability and validity.

Implications

The key implication of the present study pertains to the analysis of musicians in terms of how they structure music into their lives. This has not been addressed previously in research, but could be the reason why some differing results have emerged in the present study in relation to previous research. For instance, the finding of contrasting personality differences across role groups has implications for further research. Perhaps future research should give consideration to how musicians structure music into their lives, as consideration of this in the present study has led to different personality profiles than those highlighted in the literature. This is especially so given that the literature argues that musicians usually have to supplement their income with other work (McAuliffe et al., 1977), implying that the different role groups investigated in the present study are a reality.

Another implication of the present study pertains to the finding that this sample of musicians does not have extensive stress issues that research argues musicians have (Cooper & Wills, 1989; Steptoe, 1989; Sternbach, 1995). This is not a key implication however, because of the possibility that the OSI wasn't sensitive enough to detect stress issues with this sample. This means that the results may not reflect the stress that New Zealand musicians do actually face and cope with. It may

be necessary to conduct some qualitative research in order to ascertain the stress issues within this population.

Alternatively, these results may be reflective of today's working environment, as the previous research on musicians is not recent. If so, there may be implications for assisting musicians in dealing with stress in other countries. For instance if the results are reflective of New Zealand musicians, then further research with New Zealand musicians could highlight differences between New Zealand musicians and overseas musicians. This could potentially benefit overseas musicians, in helping them understand and deal with their stressors more effectively.

Limitations

In interpreting the results of the present study, some general caveats need to be taken into account, as the findings are limited by several factors. Firstly, complete data was not available for all variables, and although missing variables were addressed, the results and subsequent analyses may be affected, especially if the missing values were systematically different in some way which was not detected. If this is the case, then the results are not necessarily representative of the larger group of musicians within New Zealand.

A further possible limitation of this study was the small sample. This may have meant that differences that are present in this population may not have been detected, and this may have led to a distortion in the results. Also, there may be a difference across those musicians who did respond to this study from those who did not. This would of course influence the results found.

Another limitation was the use of self-report measures. Although there are clear problems associated with using self-report measures, such as confounding because of common method variance (Meyer et al., 1993), in this instance it allowed for a number of relevant variables to be measured quite efficiently. The length of the questionnaire could also create a limitation of this study. As it was fairly lengthy and involved some perspective respondents may have been put off completing it.

The sample of musicians used may also create a further possible limitation. The sample may not be representative of musicians as a whole because there were no respondents in the role group of professional performer only. However, it must be questioned whether the role group of "professional performer only" actually exists in

reality in its pure form. The literature argues that the majority of musicians have to supplement their income with other work as fulltime work as a performing musicians is suggested as being difficult and often impossible (Schneider, 1990; Smith, 1988). Perhaps in New Zealand the number of performers who earn a fulltime living from performing is negligible or even non-existent.

The Occupational Stress Inventory may have been a limitation in itself because it may not have been sensitive enough to detect stress related issues with this occupational group. Future research with New Zealand musicians would have to consider this, and perhaps utilise another stress inventory to test this notion. Further, the nonsignificant findings in relation to stress levels of musicians may be due partially to weaknesses in the survey. For instance the role ambiguity scale has inherent problems which have been discussed previously.

Not including additional analyses of the NEO PI-R subscales could have also been a limitation of this research, as such analyses may have provided clearer results. However it was decided to focus primarily on the five overall dimensions, in line with previous personality research conducted with musicians (eg. Cooper & Wills, 1989).

A final possible limitation of the present study was the omission of open-ended data collection techniques. The inclusion of open-ended questions, for example, may have provided an interesting and different insight into the stress issues the musicians experience.

Recommendations and Directions for Future Research

The key recommendation of this research is that research should be repeated with New Zealand samples to assess if the differences in results across the present New Zealand sample and previous research with American and British samples are genuine differences which are specific to New Zealand musicians. It may be that different environments, both political and cultural, impact on the samples and play a role in the differing results.

Further, it is recommended that more research be conducted with musicians in general to assess career, stress, and personality issues, but using differing methods to the present study. This recommendation is made in light of the fact that the sample of musicians in the present study did not appear to have the extreme issues pertaining

to stress that is suggested in previous research. It is necessary to determine whether the different profile of stress observed in this study is unique to the musicians in our sample, or reflective of the profession today. Utilisation of different research methods, such as open-ended data collection techniques may be more sensitive to detecting the issues of this population. If the present findings do generalise to other New Zealand musicians, then research is recommended which compares New Zealand musicians to American and/or British musicians to investigate where the differences across the groups lie.

Future research should also assess professional performers, if they exist in this pure form, as they may have differing issues, possibly in line with previous research. This was not found in the present study as no respondents in the sample were located within this category.

The fact that previous research has not considered the different ways musicians structure music into their lives is interesting given the research arguing that in reality musicians usually have to supplement their income with other work because of the inconsistent and unstable nature of the industry (McAuliffe et al., 1977). One would have thought that such findings would lead future research to consider, as the present study has, the different ways in which musicians structure music into their lives. This in itself could be indicative of the contrasting results found, and may also mean that the present study is more reflective of reality. Future research would benefit from extending the present research in this area, and looking in more detail at differences between musicians who structure music into their lives in different ways.

With regard to personality, it would also be interesting to examine more carefully how neuroticism influences the OSI components. For example, investigating which facets of neuroticism influence levels of personal strain and coping warrants consideration. This was deemed to be beyond the scope of the present study, but trends emerging in this research suggests that this is an area for future research. Although this has not been explored in prior research, the literature does purport that neuroticism is a dominant personality characteristic in many musicians (Cooper & Wills, 1989), therefore making this an appropriate channel for expanding previous research and the present study.

Future research would also benefit from analysing all the personality data in terms of the individual facet scales. This may provide enlightening information regarding the specific influences within the overall dimensions.

The newly emerging commitment scale factor structure requires further investigation. This finding suggests that there are underlying factors not considered before which offer utility in the commitment assessment domain. It is recommended that future studies examine the utility of the new commitment scale derived from factor analysis. It's psychometric properties require investigating further, including convergent and discriminant validity with other commitment scales. The generalisability of the new scale across occupations also warrants attention.

CHAPTER EIGHT: CONCLUSION

Despite the limitations of the present study it is believed that this study is the most comprehensive investigation assessing variables pertaining to the career commitment of musicians, the stresses and strains they experience, how they cope, and their personality characteristics to date. This is especially so within New Zealand where research on musicians is negligible. A great strength of this study is that it appears to be a first effort to assess, in a theoretically integrated manner, career commitment and how it is affected by stress, strain, and coping.

Certainly the findings are constrained by the samples, measures, analyses conducted, and research design used, however regardless of this from both a theoretical and practical perspective the results of this study have implications for the musicians. Certain inferences can be made in relation to the career commitment of musicians in New Zealand, the level of occupational stress, personal strain they have, the coping resources they employ and their personality profiles. It appears that the musicians in the present study are committed to their music, regardless of the arguments the literature provides pertaining to the problems and issues musicians face. Despite evidence of the high stress levels and low coping resources found in previous studies, this study suggests that musicians in New Zealand, on the whole, may not have the same stress and coping issues. Further, minimal variation in personality was found between music teachers and performers. This is also in contrast to the previous research on musicians.

A key difference however between previous research, and the present study, pertains to the analysis of musicians in terms of how they structure music into their lives. This may have contributed to the differences emerging in the present study in comparison to previous research, as analysing musicians in this way has not been done previously. Future research should extend this approach, especially given the argument in the literature that musicians usually have to supplement their income with other work.

Overall the results of the present study differ from the literature. As a result, this study creates avenues for further exploration. Although it is possible that New Zealand musicians face different issues to American or British musicians, it may be that New Zealand musicians are not really different from other musicians. This study, being the most recently conducted research with musicians, may be reflecting changes

in the status of musicians with regard to career commitment, stress and coping issues and personality profiles.

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APPENDICES



MASSEY
UNIVERSITY

APPENDIX A

A L B A N Y

DEPARTMENT OF PSYCHOLOGY

A study of Issues Facing Musicians

INFORMATION SHEET

Dear Participant,

My name is Sarah Langley and I am a Masterate student at Massey University Albany.

I am undertaking research which is investigating factors influencing the career commitment of individuals who structure music into their lives in some form. The research will also explore the stress that musicians experience and the strategies they use to deal with these experiences. In addition the impact of personality on career commitment and stress will be explored. This study specifically targets individuals who are in one of the following categories:

1. Professional music teachers only.
2. Performers only.
3. Music teachers and performers.
4. Performers whose primary income is from an occupation unrelated to music.
5. Teachers whose primary income is from an occupation unrelated to music.
6. Those who perform and teach, but whose primary income is from an occupation unrelated to music.

I invite you to participate in this study if you fall into any of the above categories. If you choose to participate you will be required to complete a questionnaire. This will take approximately one hour of your time.

All individuals who are either employed at the Music Education Centre or who are members of the Auckland Symphony Orchestra have been invited to participate. Participation is completely voluntary and you have the right to decline to participate, or withdraw at any time. ***Consent will be assumed by your completion of the questionnaire.***

All information collected will be anonymous and confidential. You will return your completed forms to the researcher via a stamped addressed envelope, and the information you provide will be confidential to the research and any publications resulting from it. At the conclusion of the study a summary of the findings of this research will be provided for all participants via your employee/orchestral newsletter.

If you have any questions about the study at any time during your participation, please contact me on either (09) 4444 093 or (025) 794 213, or my supervisor Dr. Hillary Bennett on (09) 443 9365.

Thank you for your time and participation
Sarah Langley

A study of the Issues facing Musicians

Thank you for participating in this study.

**Participation is voluntary.
All responses will be anonymous
and the information obtained will be confidential.**

A Study of the Issues Facing Musicians

Instructions

Thank you for participating in this voluntary study.

The Questionnaire is in five sections. You may not be required to answer all sections.

- A Demographic Information
- B Questions about your musical career as a professional musician
- C Questions about music as a recreational activity
- D Questions about your views regarding stress and how you cope with it.
- E Questions about what type of person you are.

Please complete all the questions in each section of the questionnaire. There are no right or wrong answers. Answer honestly and state your opinions as accurately as possible.

Upon completion please return the questionnaires to the researcher in the stamped addressed envelope provided.

If you withdraw from the study please return the uncompleted questionnaires to the researcher in the freepost addressed envelope provided.

This is an anonymous questionnaire and responses can not be traced. All information will remain confidential.

Thank you again for you time and participation.

SECTION A

DEMOGRAPHIC INFORMATION

Thank you for participating in this research, please complete the information below:

Please indicate which group you belong to:

- (a) professional music teacher _____
- (b) performer..... _____
- (c) performer who also teaches..... _____
- (d) performer whose primary income is generated from an occupation unrelated to music..... _____
- (d) teacher whose primary income is generated from an occupation unrelated to music..... _____
- (e) teacher and performer, but one whose primary income is from an occupation unrelated to music..... _____

Gender: Male / Female (circle one)

Age: _____

Marital Status: Single / Married / De facto Relationship/ Divorced
(please circle)

Education: _____
(musical qualifications and other qualifications) _____

Which Instrument(s) do you play?:

String:	Cello	_____	Viola	_____
	Double Bass	_____	Violin	_____
	Guitar	_____	Other	_____
Wind:	Clarinet	_____	Saxophone	_____
	Flute	_____	Other	_____
Brass:	Trumpet	_____		
	Other	_____		
Keyboards:	Accordion	_____	Synthesiser	_____
	Piano	_____	Organ	_____
Percussion:		_____		
Other:		_____		

Type(s) of music you specialise in: _____

Please indicate whether music for you is:

- your line of work/career field _____ **[continue answering sections B,D, & E]**
- a recreational activity _____ **[continue answering sections C & E]**

SECTION B

YOUR MUSICAL CAREER

Answer this section if music is your line of work/career field

This section looks at how you view your musical career.

Please read each item below and circle your answer according to whether you...

- 1 = strongly agree
- 2 = agree
- 3 = neither agree nor disagree
- 4 = disagree
- 5 = strongly disagree
- NA = Not Applicable

1. This line of work/career field is an important part of who I am.
1 2 3 4 5 NA

2. This line of work/career field has a great deal of personal meaning to me.
1 2 3 4 5 NA

3. I do not feel "emotionally attached" to this line of work/career field.
1 2 3 4 5 NA

4. I have created a plan for my development in this line of work/career field.
1 2 3 4 5 NA

5. I do not identify specific goals for my development in this line of work/career field.
1 2 3 4 5 NA

6. I do not often think about my personal development in this line of work/career field.
1 2 3 4 5 NA

7. The costs associated with my line of work/career field sometimes seem too great.
1 2 3 4 5 NA

8. Given the problems I encounter in this line of work/career field, I sometimes wonder if I get enough out of it.
1 2 3 4 5 NA

9. The discomforts associated with my line of work/career field sometimes seems too great.
- 1 2 3 4 5 NA
10. If I could go into a different line of work/career field which paid the same I would probably do so.
- 1 2 3 4 5 NA
11. I definitely want a career for myself in the music industry.
- 1 2 3 4 5 NA
12. If I had all the money I needed with out working, I would probably still continue to work in the music field.
- 1 2 3 4 5 NA
13. I like this line of work/career field too well to give it up.
- 1 2 3 4 5 NA
14. This is the ideal line of work/career field for a work life.
- 1 2 3 4 5 NA
15. I am disappointed that I ever entered music as a line of work/career field .
- 1 2 3 4 5 NA
16. I manage and control my musical career.
- 1 2 3 4 5 NA
17. I do not achieve a high degree of personal satisfaction from this line of work/career field.
- 1 2 3 4 5 NA
18. My personal development involves continuously learning and developing my skills/knowledge.
- 1 2 3 4 5 NA
19. My musical career enables me to live out my deeply held values.
- 1 2 3 4 5 NA

SECTION C

MUSIC AS A RECREATIONAL ACTIVITY

Answer this section if music is a recreational activity for you

Please read each item below and circle your answer according to whether you...

- 1 = strongly agree
- 2 = agree
- 3 = neither agree nor disagree
- 4 = disagree
- 5 = strongly disagree
- NA = Not Applicable

1. This recreational activity is an important part of who I am.
1 2 3 4 5 NA
2. This recreational activity has a great deal of personal meaning to me.
1 2 3 4 5 NA
3. I do not feel "emotionally attached" to this recreational activity.
1 2 3 4 5 NA
4. I have created a plan for my development in this recreational activity.
1 2 3 4 5 NA
5. I do not identify specific goals for my development in this recreational activity.
1 2 3 4 5 NA
6. I do not often think about my personal development in this recreational activity.
1 2 3 4 5 NA
7. The costs associated with my recreational activity sometimes seem too great.
1 2 3 4 5 NA
8. Given the problems I encounter with this recreational activity, I sometimes wonder if I get enough out of it.
1 2 3 4 5 NA

9. The discomforts associated with my recreational activity sometimes seem too great.

1 2 3 4 5 NA

10. I like this recreational activity too well to give it up.

1 2 3 4 5 NA

11. I am disappointed that I ever entered music as a recreational activity.

1 2 3 4 5 NA

SECTION D

HOW DO YOU DEAL WITH STRESS?

If music is a recreational activity for you do not answer this section

This part is divided into three sections about your work situations and individual habits. Please complete all sections.

For each statement circle the number which fits you best.

Circle 1 if the statement is *rarely or never* true.

Circle 2 if the statement is *occasionally* true.

Circle 3 if the statement is *often* true.

Circle 4 if the statement is *usually* true.

Circle 5 if the statement is true *most of the time*.

If you need to change a response, make an "X" through the incorrect response and then circle the correct one.

SECTION 1

- | | | | | | |
|---|---|---|---|---|---|
| 1. At work I am expected to do many different tasks in too little time. | 1 | 2 | 3 | 4 | 5 |
| 2. I feel that my job responsibilities are increasing. | 1 | 2 | 3 | 4 | 5 |
| 3. I am expected to perform tasks on my job for which I never been trained. | 1 | 2 | 3 | 4 | 5 |
| 4. I have to take work home with me. | 1 | 2 | 3 | 4 | 5 |
| 5. I have the resources I need to get my job done. | 1 | 2 | 3 | 4 | 5 |
| 6. I feel competent in what I do. | 1 | 2 | 3 | 4 | 5 |
| 7. I work under tight time deadlines. | 1 | 2 | 3 | 4 | 5 |
| 8. I wish that I had more help to deal with the demands placed on me at work. | 1 | 2 | 3 | 4 | 5 |
| 9. I am expected to do more work than is reasonable. | 1 | 2 | 3 | 4 | 5 |
| 10. I feel that my career is progressing about as I hoped it would. | 1 | 2 | 3 | 4 | 5 |
| 11. I feel that my job fits my skills and interests. | 1 | 2 | 3 | 4 | 5 |
| 12. I am bored with my job. | 1 | 2 | 3 | 4 | 5 |
| 13. I feel I have enough responsibility on my job. | 1 | 2 | 3 | 4 | 5 |
| 14. I feel my talents are being used on my job. | 1 | 2 | 3 | 4 | 5 |
| 15. I feel my job has a good future. | 1 | 2 | 3 | 4 | 5 |
| 16. I am able to satisfy my needs for success and recognition in my job. | 1 | 2 | 3 | 4 | 5 |
| 17. I feel overqualified for my job. | 1 | 2 | 3 | 4 | 5 |
| 18. I learn new skills in my work. | 1 | 2 | 3 | 4 | 5 |
| 19. I have to perform tasks that are beneath my ability. | 1 | 2 | 3 | 4 | 5 |
| 20. It is clear to me what I have to do to get ahead. | 1 | 2 | 3 | 4 | 5 |
| 21. I am uncertain about what I am supposed to accomplish in my work. | 1 | 2 | 3 | 4 | 5 |
| 22. When faced with several tasks I know which should be done first. | 1 | 2 | 3 | 4 | 5 |
| 23. I understand what is acceptable personal behaviour on my job (e.g. dress, interpersonal relations, etc.). | 1 | 2 | 3 | 4 | 5 |
| 24. The priorities of my job are clear. | 1 | 2 | 3 | 4 | 5 |
| 25. I know the basis on which I am evaluated. | 1 | 2 | 3 | 4 | 5 |
| 26. I feel caught between factions at work. | 1 | 2 | 3 | 4 | 5 |
| 27. I feel I have a stake in the success of my employer (or enterprise). | 1 | 2 | 3 | 4 | 5 |
| 28. I feel good about the work I do. | 1 | 2 | 3 | 4 | 5 |
| 29. I am proud of what I do for a living. | 1 | 2 | 3 | 4 | 5 |
| 30. It is clear who really runs things where I work. | 1 | 2 | 3 | 4 | 5 |

31. I have divided loyalties on my job.	1	2	3	4	5
32. The work I do has as much payoff for me as for my employer.	1	2	3	4	5
33. I feel I deal with more people during the day than I prefer.	1	2	3	4	5
34. I spend time concerned with the problems at work that other people bring to me.	1	2	3	4	5
35. I am responsible for the welfare of subordinates.	1	2	3	4	5
36. People on the job look to me for leadership.	1	2	3	4	5
37. I have on the job responsibility for the activities of others.	1	2	3	4	5
38. I worry about whether the people who work for/with me will get things done properly.	1	2	3	4	5
39. People who work for/with me are really hard to deal with.	1	2	3	4	5
40. If I make a mistake in my work, the consequences for others are really bad.	1	2	3	4	5
41. My job demands that I handle angry public.	1	2	3	4	5
42. I like the people I work with.	1	2	3	4	5
43. On my job I am exposed to high levels of noise.	1	2	3	4	5
44. On my job I am exposed to high levels of wetness.	1	2	3	4	5
45. On my job I am exposed to high levels of dust.	1	2	3	4	5
46. On my job I am exposed to high temperatures.	1	2	3	4	5
47. On my job I am exposed to bright light.	1	2	3	4	5
48. On my job I am exposed to low temperatures.	1	2	3	4	5
49. I have an erratic work schedule.	1	2	3	4	5
50. On my job I am exposed to personal isolation.	1	2	3	4	5
51. On my job I am exposed to unpleasant odours.	1	2	3	4	5
52. On my job I am exposed to poisonous substances.	1	2	3	4	5

SECTION 2

1. I don't seem to be able to get much done at work.	1	2	3	4	5
2. I dread going to work, lately.	1	2	3	4	5
3. I am bored with my work.	1	2	3	4	5
4. I find myself getting behind in my work, lately.	1	2	3	4	5
5. I have accidents on the job of late.	1	2	3	4	5
6. The quality of my work is good.	1	2	3	4	5
7. Recently, I have been absent from work.	1	2	3	4	5
8. I find my work interesting and/or exciting.	1	2	3	4	5
9. I can concentrate on the things I need to do at work.	1	2	3	4	5
10. I make errors or mistakes in my work.	1	2	3	4	5
11. Lately, I am easily irritated.	1	2	3	4	5
12. Lately, I have been depressed.	1	2	3	4	5
13. Lately, I have been feeling anxious.	1	2	3	4	5
14. I have been happy, lately.	1	2	3	4	5
15. So many thoughts run through my head at night that I have trouble falling asleep.	1	2	3	4	5
16. Lately, I respond badly in situations that normally wouldn't bother me.	1	2	3	4	5
17. I find myself complaining about little things.	1	2	3	4	5
18. Lately, I have been worrying.	1	2	3	4	5
19. I have a good sense of humour.	1	2	3	4	5
20. Things are going about as they should.	1	2	3	4	5
21. I wish I had more time to spend with close friends.	1	2	3	4	5
22. I quarrel with my spouse/partner.	1	2	3	4	5
23. I quarrel with friends.	1	2	3	4	5
24. My spouse/partner and I are happy together.	1	2	3	4	5
25. Lately, I do things by myself instead of with other people.	1	2	3	4	5
26. I quarrel with members of the family.	1	2	3	4	5

27.	Lately, my relationships with people are good.	1	2	3	4	5
28.	I find that I need time to myself to work out my problems.	1	2	3	4	5
29.	I wish I had more time to spend by myself.	1	2	3	4	5
30.	I have been withdrawing from people lately.	1	2	3	4	5
31.	I have unplanned weight gains.	1	2	3	4	5
32.	My eating habits are erratic.	1	2	3	4	5
33.	I find myself drinking alot lately.	1	2	3	4	5
34.	Lately, I have been tired.	1	2	3	4	5
35.	I have been feeling tense.	1	2	3	4	5
36.	I have trouble falling and staying asleep.	1	2	3	4	5
37.	I have aches and pains I can not explain.	1	2	3	4	5
38.	I eat the wrong foods.	1	2	3	4	5
39.	I feel apathetic.	1	2	3	4	5
40.	I feel lethargic.	1	2	3	4	5

SECTION 3

1.	When I need a vacation I take one.	1	2	3	4	5
2.	I am able to do what I want in my free time.	1	2	3	4	5
3.	On weekends I spend time doing the things I enjoy the most.	1	2	3	4	5
4.	Lately, my main recreational activity is watching television.	1	2	3	4	5
5.	A lot of my free time is spent attending performances (e.g., sporting events, theatre, movies, concerts, etc.).	1	2	3	4	5
6.	I spend a lot of my free time in participant activities (e.g., sports, music, painting, woodworking, sewing, etc.).	1	2	3	4	5
7.	I spend a lot of my time in community activities (e.g., scouts, religious, school, local, government, etc.).	1	2	3	4	5
8.	I find engaging in recreational activities relaxing.	1	2	3	4	5
9.	I spend enough time in recreational activities to satisfy my needs.	1	2	3	4	5
10.	I spend a lot of my free time on hobbies (e.g., collections of various kinds, etc.).	1	2	3	4	5
11.	I am careful about my diet (e.g., eating regularly, moderately, and with good nutrition in mind).	1	2	3	4	5
12.	I get regular physical checkups.	1	2	3	4	5
13.	I avoid excessive use of alcohol.	1	2	3	4	5
14.	I exercise regularly (at least 20 minutes most days).	1	2	3	4	5
15.	I practice "relaxation" techniques.	1	2	3	4	5
16.	I get the sleep I need.	1	2	3	4	5
17.	I avoid eating or drinking things I know are unhealthy (e.g., coffee, tea, cigarettes, etc.).	1	2	3	4	5
18.	I engage in meditation.	1	2	3	4	5
19.	I practice deep breathing exercises a few minutes several times each day.	1	2	3	4	5
20.	I set aside time to do things I really enjoy.	1	2	3	4	5
21.	There is at least one person important to me who values me.	1	2	3	4	5
22.	I have help with tasks around the house.	1	2	3	4	5
23.	I have help with the important things that have to be done.	1	2	3	4	5
24.	There is at least one sympathetic person with whom I can discuss my concerns.	1	2	3	4	5
25.	There is at least one sympathetic person with whom I can discuss my work problems.	1	2	3	4	5
26.	I feel I have at least one good friend I can count on.	1	2	3	4	5
27.	I feel loved.	1	2	3	4	5
28.	There is a person with whom I feel really close.	1	2	3	4	5
29.	I have a circle of friends who value me.	1	2	3	4	5
30.	I gain personal benefit from participation in formal social groups (e.g., religious, political, professional organisation, etc.).	1	2	3	4	5

- | | | | | | | |
|-----|--|---|---|---|---|---|
| 31. | I am able to put my job out of my mind when I go home. | 1 | 2 | 3 | 4 | 5 |
| 32. | I feel that there are other jobs I could do besides my current one. | 1 | 2 | 3 | 4 | 5 |
| 33. | I periodically re-examine or reorganise my work style and schedule. | 1 | 2 | 3 | 4 | 5 |
| 34. | I can establish priorities for the use of my time. | 1 | 2 | 3 | 4 | 5 |
| 35. | Once they are set, I am able to stick to my priorities. | 1 | 2 | 3 | 4 | 5 |
| 36. | I have techniques to help avoid being distracted. | 1 | 2 | 3 | 4 | 5 |
| 37. | I can identify important elements of problems that I encounter. | 1 | 2 | 3 | 4 | 5 |
| 38. | When faced with a problem I use a systematic approach. | 1 | 2 | 3 | 4 | 5 |
| 39. | When faced with the need to make a decision I try to think through the consequences of choices I might make. | 1 | 2 | 3 | 4 | 5 |
| 40. | I try to keep aware of important ways I behave and things I do. | 1 | 2 | 3 | 4 | 5 |

SECTION E

PERSONALITY QUESTIONNAIRE

All participants complete this section

Although this questionnaire contains 240 questions *it will only take about 15 minutes* to complete.

Read each item carefully and circle the answer that best corresponds to your agreement or disagreement.

Circle "SD" if the statement is definitely false or if you *strongly disagree*.

Circle "D" if the statement is mostly false or if you *disagree*.

Circle "N" if the statement is about equally true or false, if you can't decide, or if you are *neutral on the statement*.

Circle "A" if the statement is mostly true or if you *agree*.

Circle "SA" if the statement is definitely true or if you *strongly agree*.

- | | | | | | | |
|-----|--|----|---|---|---|----|
| 1. | I am not a worrier. | SD | D | N | A | SA |
| 2. | I really like most people I meet. | SD | D | N | A | SA |
| 3. | I have a very active imagination. | SD | D | N | A | SA |
| 4. | I tend to be cynical and sceptical of others' intentions. | SD | D | N | A | SA |
| 5. | I am known for my prudence and common sense. | SD | D | N | A | SA |
| 6. | I often get angry at the way people treat me. | SD | D | N | A | SA |
| 7. | I shy away from crowds of people. | SD | D | N | A | SA |
| 8. | Aesthetic and artistic concerns aren't very important to me. | SD | D | N | A | SA |
| 9. | I am not crafty or sly. | SD | D | N | A | SA |
| 10. | I would rather keep my options open than plan anything in advance. | SD | D | N | A | SA |
| 11. | I rarely feel lonely or blue. | SD | D | N | A | SA |
| 12. | I am dominant, forceful, and assertive. | SD | D | N | A | SA |
| 13. | Without strong emotions, life would be uninteresting to me. | SD | D | N | A | SA |
| 14. | Some people think I am selfish and egotistical. | SD | D | N | A | SA |
| 15. | I try to perform all the tasks assigned to me conscientiously. | SD | D | N | A | SA |
| 16. | In dealing with other people, I always dread making a social blunder. | SD | D | N | A | SA |
| 17. | I have a leisurely style in work and play. | SD | D | N | A | SA |
| 18. | I am pretty set in my ways. | SD | D | N | A | SA |
| 19. | I would rather cooperate with others than compete with them. | SD | D | N | A | SA |
| 20. | I am easy-going and lackadaisical. | SD | D | N | A | SA |
| 21. | I rarely overindulge in anything. | SD | D | N | A | SA |
| 22. | I often crave excitement. | SD | D | N | A | SA |
| 23. | I often enjoy playing with theories or abstract ideas. | SD | D | N | A | SA |
| 24. | I don't mind bragging about my talents and accomplishments. | SD | D | N | A | SA |
| 25. | I am pretty good about pacing myself so as to get things done on time. | SD | D | N | A | SA |
| 26. | I often feel helpless and want someone else to solve my problems. | SD | D | N | A | SA |
| 27. | I have never literally jumped for joy. | SD | D | N | A | SA |
| 28. | I believe letting students hear controversial speakers can only confuse them. | SD | D | N | A | SA |
| 29. | I think political leaders need to be more aware of the human side of their policies. | SD | D | N | A | SA |

30.	Over the years I've done pretty stupid things.	SD	D	N	A	SA
31.	I am easily frightened.	SD	D	N	A	SA
32.	I don't get much pleasure from chatting with people.	SD	D	N	A	SA
33.	I try to keep all my thoughts directed along realistic lines and avoid flights of fancy.	SD	D	N	A	SA
34.	I believe that most people are basically well-intentioned.	SD	D	N	A	SA
35.	I don't take civic duties like voting very seriously.	SD	D	N	A	SA
36.	I'm an even tempered person.	SD	D	N	A	SA
37.	I like to have a lot of people around me.	SD	D	N	A	SA
38.	I am sometimes completely absorbed in music I am listening to.	SD	D	N	A	SA
39.	If necessary, I am willing to manipulate people to get what I want.	SD	D	N	A	SA
40.	I keep my belongings neat and clean.	SD	D	N	A	SA
41.	I sometimes feel completely worthless.	SD	D	N	A	SA
42.	I sometimes fail to assert myself as much as I should.	SD	D	N	A	SA
43.	I rarely experience strong emotions.	SD	D	N	A	SA
44.	I try to be courteous to everyone I meet.	SD	D	N	A	SA
45.	Sometimes I am not as dependable or reliable as I could be.	SD	D	N	A	SA
46.	I seldom feel self-conscious when I'm around other people.	SD	D	N	A	SA
47.	When I do things, I do them vigorously.	SD	D	N	A	SA
48.	I think it's interesting to learn and develop new hobbies.	SD	D	N	A	SA
49.	I can be sarcastic and cutting when I need to be.	SD	D	N	A	SA
50.	I have a clear set of goals and work toward them in an orderly fashion.	SD	D	N	A	SA
51.	I have trouble resisting my cravings.	SD	D	N	A	SA
52.	I wouldn't enjoy vacationing in Las Vegas.	SD	D	N	A	SA
53.	I find philosophical arguments boring.	SD	D	N	A	SA
54.	I'd rather not talk about myself and my achievements.	SD	D	N	A	SA
55.	I waste a lot of time before settling down to work.	SD	D	N	A	SA
56.	I feel I am capable of coping with most of my problems.	SD	D	N	A	SA
57.	I have sometimes experienced intense joy or ecstasy.	SD	D	N	A	SA
58.	I believe that laws and social policies should change to reflect the needs of a changing world.	SD	D	N	A	SA
59.	I'm hard-headed and tough-minded in my attitudes.	SD	D	N	A	SA
60.	I think things through before coming to a decision.	SD	D	N	A	SA
61.	I rarely feel fearful or anxious.	SD	D	N	A	SA
62.	I am a warm and friendly person.	SD	D	N	A	SA
63.	I have an active fantasy life.	SD	D	N	A	SA
64.	I believe that most people will take advantage of you if you let them.	SD	D	N	A	SA
65.	I keep myself informed and usually make intelligent decisions.	SD	D	N	A	SA
66.	I am hot-blooded and quick-tempered.	SD	D	N	A	SA
67.	I usually prefer to do things alone.	SD	D	N	A	SA
68.	Watching ballet or modern dance bores me.	SD	D	N	A	SA
69.	I couldn't bring myself to deceive anyone even if I wanted to.	SD	D	N	A	SA
70.	I am not a very methodical person.	SD	D	N	A	SA
71.	I am seldom sad or depressed.	SD	D	N	A	SA
72.	I have often been a leader of groups I have belonged to.	SD	D	N	A	SA
73.	How I feel about things is important to me.	SD	D	N	A	SA
74.	Some people think of me as cold and calculating.	SD	D	N	A	SA
75.	I pay my debts promptly and in full.	SD	D	N	A	SA
76.	At times I have been so ashamed I have just wanted to hide.	SD	D	N	A	SA
77.	My work is likely to be slow but steady.	SD	D	N	A	SA
78.	Once I find the right way to do something, I stick to it.	SD	D	N	A	SA
79.	I hesitate to express my anger even when it's justified.	SD	D	N	A	SA
80.	When I start a self-improvement program, I usually let it slide					

	after a few days.	SD	D	N	A	SA
81.	I have little difficulty in resisting temptation.	SD	D	N	A	SA
82.	I have sometimes done things just for "kicks" or "thrills".	SD	D	N	A	SA
83.	I enjoy solving problems or puzzles.	SD	D	N	A	SA
84.	I think I'm better than most people.	SD	D	N	A	SA
85.	I am a productive person who always gets the job done.	SD	D	N	A	SA
86.	When I am under a great deal of stress, sometimes I feel like I'm going to pieces.	SD	D	N	A	SA
87.	I am not a cheerful optimist.	SD	D	N	A	SA
88.	I believe that we should look at our religious authorities for decisions on moral issues.	SD	D	N	A	SA
89.	I feel that we can never do too much for the poor and elderly.	SD	D	N	A	SA
90.	Occasionally I act first and think later.	SD	D	N	A	SA
91.	I often feel tense and jittery.	SD	D	N	A	SA
92.	Many people think of me as somewhat cold and distant.	SD	D	N	A	SA
93.	I don't like to waste my time daydreaming.	SD	D	N	A	SA
94.	I think most of the people I deal with are honest and trustworthy.	SD	D	N	A	SA
95.	I often come into situations without being fully prepared.	SD	D	N	A	SA
96.	I am not considered a touchy or temperamental person.	SD	D	N	A	SA
97.	I really feel the need for other people if I am by myself for long.	SD	D	N	A	SA
98.	I am intrigued by the patterns I find in art and nature.	SD	D	N	A	SA
99.	I think being perfectly honest is a bad way to do business.	SD	D	N	A	SA
100.	I like to keep everything in its place so I'll know just where it is.	SD	D	N	A	SA
101.	I have sometimes experienced a deep sense of guilt or sinfulness.	SD	D	N	A	SA
102.	In meetings, I usually let others do the talking.	SD	D	N	A	SA
103.	I seldom pay much attention to my feelings of the moment.	SD	D	N	A	SA
104.	I generally try to be thoughtful and considerate.	SD	D	N	A	SA
105.	Sometimes I cheat when I play solitaire.	SD	D	N	A	SA
106.	It doesn't embarrass me too much if people ridicule and tease me.	SD	D	N	A	SA
107.	I often feel as if I am bursting with energy.	SD	D	N	A	SA
108.	I often try new and foreign foods.	SD	D	N	A	SA
109.	If I don't like people, I let them know it.	SD	D	N	A	SA
110.	I work hard to accomplish my goals.	SD	D	N	A	SA
111.	When I am having my favourite foods, I tend to eat too much.	SD	D	N	A	SA
112.	I tend to avoid movies that are shocking or scary.	SD	D	N	A	SA
113.	I sometimes lose interest when people talk about very abstract, theoretical matters.	SD	D	N	A	SA
114.	I try to be humble.	SD	D	N	A	SA
115.	I have trouble making myself do what I should.	SD	D	N	A	SA
116.	I keep a cool head in emergencies.	SD	D	N	A	SA
117.	Sometimes I bubble with happiness.	SD	D	N	A	SA
118.	I believe that the different ideas of right and wrong that people in other societies have may be valid for them.	SD	D	N	A	SA
119.	I have no sympathy for panhandlers.	SD	D	N	A	SA
120.	I always consider the consequences before I take action.	SD	D	N	A	SA
121.	I'm seldom apprehensive about the future.	SD	D	N	A	SA
122.	I really enjoy talking to people.	SD	D	N	A	SA
123.	I enjoy concentrating on a fantasy or daydream and exploring all its possibilities, letting it grow and develop.	SD	D	N	A	SA
124.	I'm suspicious when someone does something nice for me.	SD	D	N	A	SA
125.	I pride myself on my sound judgement.	SD	D	N	A	SA
126.	I often get disgusted with people I have to deal with.	SD	D	N	A	SA
127.	I prefer jobs that let me work alone without being bothered by					

other people.	SD	D	N	A	SA
128. Poetry has little or no effect on me.	SD	D	N	A	SA
129. I would hate to be thought of as a hypocrite.	SD	D	N	A	SA
130. I never seem to be able to get organised.	SD	D	N	A	SA
131. I tend to blame myself when anything goes wrong.	SD	D	N	A	SA
132. Other people often look to me to make decisions.	SD	D	N	A	SA
133. I experience a wide range of emotions or feelings.	SD	D	N	A	SA
134. I'm not known for my generosity.	SD	D	N	A	SA
135. When I make a commitment, I can always be counted on to follow through.	SD	D	N	A	SA
136. I often feel inferior to others.	SD	D	N	A	SA
137. I'm not as quick and lively as other people.	SD	D	N	A	SA
138. I prefer to spend my time in familiar surroundings.	SD	D	N	A	SA
139. When I've been insulted I just try to forgive and forget.	SD	D	N	A	SA
140. I don't feel like I'm driven to get ahead.	SD	D	N	A	SA
141. I seldom give in to my impulses.	SD	D	N	A	SA
142. I like to be where the action is.	SD	D	N	A	SA
143. I enjoy working on "mind-twister"-type puzzles.	SD	D	N	A	SA
144. I have a very high opinion of myself.	SD	D	N	A	SA
145. Once I start a project, I almost always finish it.	SD	D	N	A	SA
146. It's often hard for me to make up my mind.	SD	D	N	A	SA
147. I'm not especially "light-hearted".	SD	D	N	A	SA
148. I believe that loyalty to one's ideals and principles is more important than "open-mindedness".	SD	D	N	A	SA
149. I believe that human need should always take priority over economic considerations.	SD	D	N	A	SA
150. I often do things on the spur of the moment.	SD	D	N	A	SA
151. I often worry about things that might go wrong.	SD	D	N	A	SA
152. I find it easy to smile and be outgoing with strangers.	SD	D	N	A	SA
153. If I feel my mind starting to drift off into daydreams, I usually get busy and start concentrating on some work or activity instead.	SD	D	N	A	SA
154. My first reaction is to trust people.	SD	D	N	A	SA
155. I don't seem to be completely successful at anything.	SD	D	N	A	SA
156. It takes a lot to get me mad.	SD	D	N	A	SA
157. I'd rather vacation at a popular beach than an isolated cabin in the woods.	SD	D	N	A	SA
158. Certain kinds of music have an endless fascination for me.	SD	D	N	A	SA
159. Sometimes I trick people into doing what I want.	SD	D	N	A	SA
160. I tend to be somewhat fastidious or exacting.	SD	D	N	A	SA
161. I have a low opinion of myself.	SD	D	N	A	SA
162. I would rather go my own way than be a leader of others.	SD	D	N	A	SA
163. I seldom notice the moods or feelings that different environments produce.	SD	D	N	A	SA
164. Most people I know like me.	SD	D	N	A	SA
165. I adhere strictly to my ethical principles.	SD	D	N	A	SA
166. I feel comfortable in the presence of my boss or other authorities.	SD	D	N	A	SA
167. I usually seem in a hurry.	SD	D	N	A	SA
168. Sometimes I make changes around the house just to try something different.	SD	D	N	A	SA
169. If someone starts a fight, I'm ready to fight back.	SD	D	N	A	SA
170. I strive to achieve all I can.	SD	D	N	A	SA
171. I sometimes eat myself sick.	SD	D	N	A	SA
172. I love the excitement of roller coasters.	SD	D	N	A	SA
173. I have little interest in speculating on the nature of the universe or the human condition.	SD	D	N	A	SA
174. I feel that I am no better than others, no matter what their					

condition.	SD	D	N	A	SA
175. When a project gets too difficult, I'm inclined to start a new one.	SD	D	N	A	SA
176. I can handle myself pretty well in a crisis.	SD	D	N	A	SA
177. I am a cheerful, high-spirited person.	SD	D	N	A	SA
178. I consider myself broad-minded and tolerant of other people's lifestyles.	SD	D	N	A	SA
179. I believe all human beings are worthy of respect.	SD	D	N	A	SA
180. I rarely make hasty decisions.	SD	D	N	A	SA
181. I have fewer fears than most people.	SD	D	N	A	SA
182. I have strong emotional attachments to my friends.	SD	D	N	A	SA
183. As a child I rarely enjoyed games of make believe.	SD	D	N	A	SA
184. I tend to assume the best about people.	SD	D	N	A	SA
185. I'm a very competent person.					
186. At times I have felt bitter and resentful.	SD	D	N	A	SA
187. Social gatherings are usually boring to me.	SD	D	N	A	SA
188. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.	SD	D	N	A	SA
189. At times I bully or flatter people into doing what I want them to do.	SD	D	N	A	SA
190. I'm not compulsive about cleaning.	SD	D	N	A	SA
191. Sometimes things look pretty bleak and hopeless to me.	SD	D	N	A	SA
192. In conversations, I tend to do most of the talking.	SD	D	N	A	SA
193. I find it easy to empathise - to feel myself what others are feeling.	SD	D	N	A	SA
194. I think of myself as a charitable person.	SD	D	N	A	SA
195. I try to do jobs carefully, so they won't have to be done again.	SD	D	N	A	SA
196. If I have said or done the wrong thing to someone, I can hardly bear to face them again.	SD	D	N	A	SA
197. My life is fast-paced.	SD	D	N	A	SA
198. On a vacation, I prefer going back to a tried and true spot.	SD	D	N	A	SA
199. I'm hard-headed and stubborn.	SD	D	N	A	SA
200. I strive for excellence in everything I do.	SD	D	N	A	SA
201. Sometimes I do things on impulse that later I regret.	SD	D	N	A	SA
202. I'm attracted to bright colours and flashy lights.	SD	D	N	A	SA
203. I have a lot of intellectual curiosity.	SD	D	N	A	SA
204. I would rather praise others than be praised myself.	SD	D	N	A	SA
205. There are so many little jobs that need to be done that I sometimes just ignore them all.	SD	D	N	A	SA
206. When everything seems to be going wrong, I can still make good decisions.	SD	D	N	A	SA
207. I rarely use words like "fantastic!" or "sensational!" to describe my experiences.	SD	D	N	A	SA
208. I think that if people don't know what they believe in by the time they're 25, there is something wrong with them.	SD	D	N	A	SA
209. I have sympathy for others less fortunate than myself.	SD	D	N	A	SA
210. I plan ahead carefully when I go on a trip.	SD	D	N	A	SA
211. Frightening thoughts sometimes come into my head.	SD	D	N	A	SA
212. I take a personal interest in the people I work with.	SD	D	N	A	SA
213. I would have difficulty just letting my mind wander without control or guidance.	SD	D	N	A	SA
214. I have a good deal of faith in human nature.	SD	D	N	A	SA
215. I am efficient and effective at my work.	SD	D	N	A	SA
216. Even minor annoyances can be frustrating to me.	SD	D	N	A	SA
217. I enjoy parties with lots of people.	SD	D	N	A	SA
218. I enjoy reading poetry that emphasises feelings and images more than story lines.	SD	D	N	A	SA
219. I pride myself on my shrewdness in handling people.	SD	D	N	A	SA
220. I spend a lot of time looking for things I've misplaced.	SD	D	N	A	SA

221.	Too often, when things go wrong, I get discouraged and feel like giving up.	SD	D	N	A	SA
223.	Odd things - like certain scents or the names of distant places - can evoke strong moods in me.	SD	D	N	A	SA
224.	I go out of my way to help others if I can.	SD	D	N	A	SA
225.	I'd really have to be sick before I'd miss a day of work.	SD	D	N	A	SA
226.	When people I know do foolish things, I get embarrassed for them.	SD	D	N	A	SA
227.	I am a very active person.	SD	D	N	A	SA
228.	I follow the same route when I go someplace.	SD	D	N	A	SA
229.	I often get into arguments with my family and co-workers.	SD	D	N	A	SA
230.	I'm something of a "workaholic."	SD	D	N	A	SA
231.	I am always able to keep my feelings under control.	SD	D	N	A	SA
232.	I like being part of the crowd at sporting events.	SD	D	N	A	SA
233.	I have a wide range of intellectual interests.	SD	D	N	A	SA
234.	I think I am a superior person.	SD	D	N	A	SA
235.	I have a lot of self-discipline.	SD	D	N	A	SA
236.	I'm pretty stable emotionally.	SD	D	N	A	SA
237.	I laugh easily.	SD	D	N	A	SA
238.	I believe that the "new morality" of permissiveness is no morality at all.	SD	D	N	A	SA
239.	I would rather be known as "merciful" than as "just".	SD	D	N	A	SA
240.	I think twice before I answer a question.	SD	D	N	A	SA

Thank you for participating in this study. A summary of the findings will be provided for all participants at the completion of the research

If you would like personal feedback on your results please put a password in the space provided below and then contact Sarah on (025) 794 213. This password ensures your anonymity and confidentiality.

PASSWORD _____

Table C1

Mean Scores for OSI Subscales and NEO PI-R Dimensions and Transformed Scores According to Respective Manuals

Scale	Mean Score (NZ musicians)	Transformed Score Ranges for Males and Females Combined	High/Average/Low Location of Scores
Occupational Stress Inventory*			
Role Overload	21.00	38-44	Low
Role Insufficiency	31.90	57-64	High
Role Ambiguity	17.97	46-47	Average
Role Boundary	14.17	39-41	Low
Responsibility	30.48	55-60	High
Physical Environment	19.90	53-60	Average
Vocational Strain	15.24	43-44	Low
Psychological Strain	19.66	48-50	Average
Interpersonal Strain	19.52	47-49	Average
Physical Strain	19.96	49-54	Average
Recreation	28.66	52	Average
Self-care	26.55	48-50	Average
Social Support	38.79	48	Average
Rational/Cognitive Coping	37.10	51	Average
NEO PI-R**			
Neuroticism	86.94	52-56	Average-High
Extroversion	109.75	50-51	Average
Openness to Experience	120.62	56	High
Agreeableness	123.00	46-52	Average
Conscientiousness	122.48	49-50	Average

* OSI Manual (Osipow & Spokane, 1992)

** NEO PI-R Manual (McCrae & Costa, 1992)