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**SOCIOTROPY AND AUTONOMY IN OLDER ADULTS  
AND THE RELATIONSHIPS BETWEEN THE PERSONALITY  
STYLES, SOCIAL SUPPORT, AND AFFECT**

**A thesis presented in partial fulfilment of  
the requirements for the degree of  
Doctor of Philosophy  
in Psychology at  
Massey University, Palmerston North**

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**2007**

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## ABSTRACT

High rates of depression and anxiety are found among older adults. This study investigated the relationship between vulnerability factors and protective factors experienced among this age group. Sociotropy and autonomy are orthogonal cognitive schemata, which influence the experience, and treatment of depression and anxiety in vulnerable individuals. Both sociotropy and autonomy are related to our view of self and others in our world, so it is likely that they influence how social support (which has been identified as a protective factor against the development of depression) is used and perceived. While the concepts of sociotropy and autonomy have been studied extensively in samples of young adults, little research has been undertaken with older adults and none with a New Zealand sample. This study addressed this deficit, with a sample of 492 community-living older adults aged 65 years and older, which was obtained from the New Zealand electoral roll. The present research comprised two stages.

The first stage investigated the structure of sociotropy and autonomy, and consisted of two studies. In Study 1, data obtained from the older adult sample via a postal survey, indicated that the single Sociotropy scale and the two autonomy subscales (Independence and Solitude) of the Revised Sociotropy-Autonomy Scale [SAS-Rev] (D. A. Clark, Steer, Beck, & Ross, 1995) were moderately correlated, contrary to previous findings. Principal components analyses were run on the items to examine the structure of the scales more closely. Two sociotropy subscales (Interpersonal Sensitivity and Attachment) and one autonomy scale (Independence) emerged. The scales were still weakly correlated. In Study 2, the structure of sociotropy/autonomy was examined in a student sample in order to ascertain if the difference in structure was due to age. Data obtained from 120 students living in New Zealand, via an online survey, indicated the same independent factor structure as proposed by D. A. Clark et al. (1995). Thus it is proposed that the nature of sociotropy and autonomy is different for older adults than for younger age groups. Also, for older adults, sociotropy and autonomy are not independent constructs and are less clearly differentiated than in younger age groups.

Stage 2 examined the influence of the two sociotropy factors (Interpersonal Sensitivity and Attachment) and the autonomy factor (Independence) on the structure of older adults' support networks, the amount of support they receive from family and friends, and how much support they perceive to be available from family and friends. Positive Affect and Negative Affect were also assessed, as indicators of mental well-being. Attachment was found to be a unique predictor of decreased Available Family Support, increased Available Friend Support, and increased Received Family Support. Received Friend Support was the only support predictor of increased Positive Affect. Of the sociotropy/autonomy factors, higher levels of Independence resulted in increased levels of Positive Affect, while Sensitivity predicted increased levels of Negative Affect and negatively contributed to Positive Affect. None of the sociotropy/autonomy factors moderated the relationship between Received Friend Support and Positive Affect.

Implications for assessment of sociotropy/autonomy in older adults, the development of support programmes, and cognitive interventions aimed at enhancing the mental well-being of older adults are discussed. Additional studies are required to provide a more in-depth explanation of the relationships between sociotropy/autonomy and functions of social support among older adults. Suggestions are offered for how future research could further clarify the present findings.

## ACKNOWLEDGEMENTS

While this dissertation is under my name, no research project such as this is a single person event, and many people have helped me bring it about. I appreciate their time and input and wish to give them my thanks.

Firstly, I would like to acknowledge the participants who freely gave of their time and effort in responding to the surveys. Without them, this research project would not have got off the ground. Their interest is very much appreciated.

A very big thank you to Associate Professor Paul Merrick, my first supervisor for his guidance and encouragement throughout the time it took for this project to be completed. I really appreciate your enthusiastic interest in my study, and your willingness to share your expertise in the area. And thank you for being so patient as I battled with the process of producing this dissertation. Thank you also to Associate Professor Kevin Ronan, my second supervisor, for your interest in my research, even after you had left New Zealand to live in Australia.

Several members of the Psychology Department at Massey University have provided advice and assistance with this research project, and the production of the dissertation, and I appreciate their help. I also wish to also acknowledge Glennis Wallbuton for her assistance with the inputting of the older adult data, Harvey Jones for his expertise in setting up the online survey, and Alistair Noble for his advice with the data analysis. And I extend my gratitude to Ella Kahu for the interest and effort she put into proofreading the manuscript.

I wish to acknowledge the assistance of prominent researchers in the area, Doctor Alan Vaux for his help with providing me with the Social Support Behavior Scale, and the supporting research on it, and Doctor Toru Sato for his interest in my research. It was encouraging when researchers of this calibre were willing to answer e-mail queries and expressed their interest in my study.

Last, but most certainly not least, I am very grateful to my friends and fellow students who provided support and encouragement, particularly Jane and Walter Craig, Virginia Bristowe, Emma Dresler-Hawke, Pia Pechtel, and Tomoko Yamaguchi. And a huge thanks to my family, Mum and Dad, and especially Megan, who have lived and experienced this dissertation along with me. Now I can give you an affirmative answer, when you ask when I will be finished. Your patience with my absence is very much appreciated, and I look forward to being able to spend more time with you.

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## CHAPTER 1

### INTRODUCTION

#### OVERVIEW

Current demographic trends, both in New Zealand and the wider global context, indicate that older adults are becoming a larger proportion of the population. Due to medical advances and the promotion of healthier life-styles, longevity is increasing. Also, due to the ageing of the post World War II “baby boomers” and decreased fertility rates, older adults are becoming a larger proportion of the population. In New Zealand, a quarter of the population will be aged 65 years and over by 2051, with the fastest growing group being those over 80 years old (Statistics New Zealand, 2006). The projected increase in the older population has led to the development of policies and initiatives aimed at enhancing the physical and mental well-being of older adults, such as those proposed by Dyson (2002) and the World Health Organization (2002).

However, a major challenge to the psychological well-being of older adults is the high incidence of depressive symptoms found in later life. Rates ranging from 8% to 16% have been found among community living elders in the U.S. (Blazer, 2002). In an international review of prevalence studies in community-dwelling older adults, Beekman, Copeland, and Prince (1999) found an average prevalence of 13.5%. They found consistent evidence supporting higher prevalence rates for women, and among older people living in difficult socio-economic conditions. Anxiety disorders are also common in late life, and may be more common than depression, with prevalence rates ranging from 0.7 to 18.6% being found (Wetherell, 1998). Her study also indicated that when symptoms that do not reach the criteria for any specific disorder are considered, prevalence rates in community samples increase to 20-25%.

Positive and negative affect are two broad mood states that can be used to assess depressive and anxious symptomatology. Negative affect (a mood state representing the extent to which a person is feeling upset or unpleasantly aroused versus calm and peaceful) is a distress factor common to both anxiety and depression. However, low

levels of positive affect (a mood state reflecting the extent to which an individual is experiencing a sense of energy, enthusiasm, and pleasurable engagement) is relatively specific to depression (Watson, Clark, & Carey, 1988). These two affect factors are an indicator of subjective psychological well-being (or distress) that is also widely used in studies of general populations as it allows for depressive and anxious symptoms to be assessed, in the absence of clinical levels of symptomatology (Lang & Heckhausen, 2001; Watson & Tellegen, 1985). As such, in the present study, positive affect and negative affect were used as indicators of psychological well-being in a sample of community-living older adults.

In 1983, A. T. Beck proposed that sociotropy and autonomy are two modes of schema content, or belief systems, that interact with congruent stressful events to bring about a vulnerability to the development of unipolar depression. Sociotropy refers to a view of the self as interconnected with others and dependent on their acceptance or approval to maintain a sense of well-being. As such, elevated levels of sociotropy results in a high personal investment in maintaining interpersonal relationships. In contrast, autonomy refers to a view of the self as separate, independent, and goal focused. Therefore elevated levels of autonomy result in a high personal investment in self-determination and achievement of meaningful goals. In the research sociotropy has consistently been associated with depressed mood in the face of stressors (Allen, Horne, & Trinder, 1996; D. A. Clark, Beck, & Brown, 1992; Mazure, Bruce, Maciejewski, & Jacobs, 2000; Mazure & Maciejewski, 2003; Mazure, Raghavan, Maciejewski, Jacobs, & Bruce, 2001; Moore & Blackburn, 1994; Robins & Block, 1988; Sato & McCann, 2000), while the findings for autonomy have been equivocal.

There has been a large amount of research on the concepts of sociotropy and autonomy undertaken with young adults, and measures have been developed and tested with that group of the population, particularly students (D. A. Clark, Steer, Beck, & Ross, 1995; Robins et al., 1994). However, few studies have investigated sociotropy and autonomy in samples of older adults. While the constructs have been found to remain stable for up to six weeks in middle aged depressed adults (Mazure et al., 2001), there is a lack of research investigating the structures of the components within the sociotropy and

autonomy constructs in late life. The present study aims to redress these deficiencies in the sociotropy and autonomy research in older adults.

Although the concepts of sociotropy and autonomy developed out of a theory of depression, they also have implications for how people view themselves in relation to others and how they interact with others. Differences in interpersonal skills and behaviour, and expectations about relationships and the interpretation of what actually transpires in these interactions, have been linked to the use and perception of social support (Eckenrode, 1983; B. R. Sarason, Sarason, Hacker, & Basham, 1985; B. R. Sarason, Pierce, & Sarason, 1990).

Social support has consistently been indicated as a protective factor for older adults against physical decline (Hays, Steffens, Flint, Bosworth, & George, 2001; Krause, 1997) and psychological distress (Krause, 2005; Wilson & Everts, 1995), including depression (Lynch et al., 1999; Newsom & Schultz, 1996) and anxiety (McCulloch, 1995). Kaniasty and Norris (1993) have noted that the positive effects of social support have been supported in the research, both as a buffer against the negative effects of stressful life events, and as a direct influence on well-being independent of life stressors.

The literature indicates that there are two main categories of social support: (1) structural support, which looks at the structure of social networks and how integrated the individuals are in their networks, for example the size of the network, whether it consists mainly of family or friends, and how dense it is, and (2) functional support, which looks at what social support is comprised of, and what it actually provides the recipient. When structural support is measured, social support has been found to have a direct effect on well-being, but when functional support is measured, social support has been found to act as a buffer against the effect of stressful events (S. Cohen & Wills, 1985). Functional support has been further divided into two types of support – received or enacted support and perceived support. Received or enacted support looks at what supportive behaviours actually occur within interactions, while perceived support is taken solely from the recipient's point of view, and looks at how much support

individuals perceive there to be available if they need it, and how satisfied they are with it.

Network support, received support, and perceived support have been found to be three distinct forms of support, and are only weakly related (Lakey & Lutz, 1996; Lakey, McCabe, Fisicaro, & Drew, 1996; Robinson & Garber, 1995). Perceived support has been found to be a more powerful predictor of psychological well-being than either network or received support (Lakey & Lutz, 1996; Monroe & Steiner, 1986; Robinson & Garber, 1995). The importance of perceived support suggests that it is our schematic view of the world, rather than the objective reality of it, which influences our affective response. This view of the determinants of psychological distress or well-being echoes that endorsed by a cognitive-behavioural therapy (CBT) perspective.

As adults age their supportive social interactions and preferences change. Older adults experience shrinking support networks due to death or disability (Bowling, 1997). Also, according to Carstensen's (1992) socioemotional selectivity theory, they selectively choose to interact with fewer people as they withdraw from casual social contact, while maintaining or even increasing their involvement with close friends and family (Lansford, Sherman, & Antonucci, 1998). Older adults also tend to differentiate more than younger adults between support resources, preferring to turn to adult children for the care and assistance they need while getting self-esteem needs met from friends (Kaniasty & Norris, 1993; Rook, 1987).

In general, most social support research and interventions assume that all people benefit from increased social support. However research by Sun, Cheung, Fung and Mak (1999) has indicated that while received support contributed to the psychological well-being of sociotropic individuals, it was not beneficial to autonomous individuals. Furthermore, Reynolds and Gilbert (1991) found that general social support alone was actually detrimental to the psychological well-being of autonomous unemployed men. Such findings bring the usefulness of generalised social support interventions into question, as it appears that not all people benefit equally from the provision of social support to help them deal with stressful situations. Indeed, some people may benefit

more by being able to engage in meaningful activities and maintain their own self-determination.

The present research was undertaken to explore the role of sociotropy and autonomy, and social support in the mental well-being of older adults in New Zealand. Firstly, the structures of the sociotropy/autonomy components, and their relationships to each other, in this age group were explored. This was followed by a study into the impact that sociotropy and autonomy have on (i) older adults' support networks, (ii) the amount of support they receive from both family members and friends, and (iii) how much support the elderly perceive to be available to them from those sources. Furthermore, the extent to which sociotropy/autonomy influence the relationships between the different forms of support and affect (as a measure of psychological well-being) was investigated.

## **ORGANISATION**

*Chapter 2* describes the trend toward an ageing population in New Zealand. The concept of successful ageing is also defined and discussed, noting the challenge to successful ageing caused by the high prevalence rates of depression and anxiety that are found in older adults. In *Chapter 3* positive and negative affect are outlined, as indicators of older adults' mental well-being. The ability of the two affect factors to differentiate between depression and anxiety will be described. *Chapter 4* explains the cognitive dimensions of sociotropy and autonomy, which can increase an individual's vulnerability to the development of depression and anxiety. Then in *Chapter 5* social support among older adults is reviewed, along with the protective role it plays in their mental health. Definitions are provided of network support, received support, and perceived availability of support, and their complex relationships to psychological well-being in older adults will be discussed. *Chapter 6* provides the rationale for the present research, and the aims of the two stages will be outlined.

Stage One investigates the structure of the sociotropy/autonomy components among older adults. *Chapter 7* describes the methodology employed in Stage One, along with the sample, measures, and methods of data analysis used. *Chapter 8* presents the results of the investigation of the component structure of sociotropy and autonomy among

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older adults, and compares the structure found with that of a younger student sample. *Chapter 9* explains the structure of the cognitive schemata among older adults and how specific cohort effects among this group can influence the experience of the dimensions. Implications for the assessment of the sociotropy/autonomy in old age are discussed.

Stage Two investigates the relationships between the sociotropy/autonomy components, social support and affect. *Chapter 10* presents the hypotheses being investigated in Stage Two, while *Chapter 11* examines the relationships between sociotropy/autonomy, social support and affect, and reports the results for each hypothesis. *Chapter 12* discusses the findings for each hypothesis, then pulls them together into a summary to form a combined explanation of the meaningful relationships found among older adults in the present study between the sociotropy/autonomy components, social support and affect. Practical implications of the findings are discussed. Limitations of the present study are noted, and suggestions are made for future research in order to further the understanding of the sociotropy/autonomy components among older adults, and how they are related to different forms and functions of social support.

## CHAPTER 2

### AGEING

#### AN AGEING POPULATION

With the promotion of healthy life-styles and the advancement of medical technology increasing longevity, more older adults are living longer and surviving into the old-old group of 85 years and older. Furthermore, current demographic trends indicate that, due to a decline in fertility accompanied with the ageing of the post World War II “baby boom” generations, older adults are becoming a larger proportion of the total worldwide population.

Between 1970 and 2025, a growth of 223% in adults aged 60 years and older is expected, and by 2025 about one-third of the population in Japan, and many of the European countries will be aged 60 years and over. Moreover, people over the age of 80 are the fastest growing segment of the older population. While population ageing has been mostly associated with the more developed regions of the world, a rapid similar trend is now also being observed in developing countries (World Health Organization, 2002).

This global trend is also being reflected in the New Zealand population. In the year 2001, 457,000 (12%) of people living in New Zealand were aged 65 or over, 209,000 (5.4%) were aged 75 or over and 50,000 (1.3%) were aged 85 or older (Fletcher & Lynn, 2002). However, Statistics New Zealand (2001, 2002) has projected that by 2051, the older adult population will have more than doubled to 1.18 million aged 65 and over (26% of the population), 708,000 (15%) aged 75 and over, and 292,000 (5.3%) aged 85 and over.

Worldwide, there is a gender gap in life expectancy, resulting in substantially larger numbers of older women than men (Laidlaw, Thompson, Dick-Siskin, & Gallagher-Thompson, 2003; World Health Organization, 2002). Currently, in New Zealand, there are

nearly twice as many women as men aged 80 years and over (Statistics New Zealand, 2006). While the life mortality gap between older men and women has narrowed over recent years, women still live on average between five and seven years longer than men (Laidlaw et al., 2003). This longer life expectancy for older women, coupled with the tendency of women to marry men older than themselves, results in an increased likelihood of older women becoming widowed. Older women who are alone are vulnerable to poverty and social isolation, and are also at higher risk (as are women of all ages) of the development of mood disorders such as depression (Beekman et al., 1999; Blazer, 2002).

Fletcher and Lynn (2002) have noted that New Zealand statistics indicate an increasing ethnic diversity amongst older New Zealanders. By 2051, Maori aged 65 or older will make up approximately 10% of older people and 13% of the total Maori population (a 500 % increase from 2001). The proportion of Pacific Island people aged 65 and over will also increase from 1.6% of the total older population in 2001, to 2.3% in 2016, and to 4.4% by 2051. They will reach 11% of the New Zealand Pasifika population by 2051 compared with 3.5% in 2001 (an increase of 860%). In 2001, 3.3% of Asian people were aged 65 and older, but this is expected to increase to 7.3% by 2016. While older Asian adults made up 2.2 % of the total population aged 65 and older in 2001, by 2016 they will increase to 4% of the population.

## **MODELS OF SUCCESSFUL AGEING**

With the ageing of the population, theories and models of normal psychosocial ageing which address older adults' ability to maintain meaningful social relationships, and continue to participate as active members in community life are needed to inform psychological treatments and supportive initiatives. It is important that these models realistically reflect the complexity of the gains, losses and stability that are experienced as older adults negotiate the role changes that are involved in the late life ageing process.

Early theories of ageing offered simplistic narrow views of adaptive normative ageing. The disengagement theory (Cumming & Henry, 1961) took a perspective of adapting to decline

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and loss by disengaging from previously held roles. Older adults were expected to naturally experience increased levels of self-preoccupation and go through an inevitable voluntary withdrawal or disengagement from roles and statuses they had maintained through their middle-aged years. This would result in decreased levels of interaction between the ageing person and his or her social system. However, for a well-adjusted elder, this withdrawal from others allows the older person to reach a level of self-equilibrium. On the other hand, the activity theory of ageing (Lemon, Bengston, & Peterson, 1972) asserts that social interaction is important for an older person to maintain their levels of self-esteem and life satisfaction, particularly informal activity (Longino & Kart, 1982). Roles and statuses that have been lost through retirement and the ageing process should be substituted with age-appropriate replacements.

This focus on the importance of meaningful activity for older adults has developed into the perspective of productive ageing. The concept of productive ageing challenges the perception that older adults are unable to make active contributions to society, and argues that society cannot afford to overlook the potential of older adults to act as a resource for social change and economic growth (Hinterlong, Morrow-Howell, & Sherraden, 2001). Productive ageing was originally developed within the framework of elders maintaining their ability to make a social and economic contribution within the arena of the marketplace. However, recent conceptualisations have extended the definitions of productive activity to include the broad range of activities that gives our lives meaning, not just those activities involving an external reward system (Hinterlong et al., 2001).

However, perspectives of ageing, such as those briefly described above, do not allow for the heterogeneity of older adults' social personalities, or the costs involved for older adults as they maintain their levels of social activity and productivity. Furthermore, they do not address the complexity of the interplay between loss, gains, and maintenance of physical and cognitive abilities.

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Baltes and Baltes (1990) provided a more adaptive model of successful ageing. Their Selection-Optimization-Compensation model realistically addresses losses faced by older adults, but presents a positive view of compensatory mechanisms that can be used to reduce the negative impact of ageing and maintain satisfactory levels of accomplishment and social participation. Realising their limitations, older adults can (1) select a smaller number of responsibilities or performance domains on which they can concentrate their efforts; (2) optimise their performance within the selected domains by devoting more time or practice to them; and (3) compensate for their declining levels of stamina and competence by making use of others or technology, or by using smarter strategies for accomplishing their desired levels of performance. According to such a model, older adults are able to adapt to the limitations of old age while still maintaining fulfilling lives. This model provides a more positive, but realistic, view of ageing than that provided by either disengagement or activity theories alone. Park, Nisbett, and Hedden (1999) have extended the model by emphasising the role of culture in ageing, through recognising the impact of ageing on both fluid/mechanical and crystallized/pragmatic abilities cross-culturally.

This model of successful ageing has been developed further into the social arena by Carstensen (1992), who proposed that a social adaptation strategy counteracts the demands of maintaining the larger social networks that are found in younger age groups. According to the theory of socioemotional selectivity, reduced rates of social interactions in later life are due to the strategic changes in selection processes over the life span. Older people, who are less future oriented than younger age groups, prefer familiar and intimate social partners who provide support and engender emotional gratification, than novel contacts with a wider range of people. Thus they selectively interact with fewer people and withdraw from casual social contact, while maintaining or even increasing their involvement in relationships with close friends and family. Carstensen's theory of socioemotional selectivity is explained more fully in chapter 5.

From his clinical work providing psychotherapy to older adults, Knight (1992, 1993a, 1993b, 1996a, 1996b) developed a model of ageing that views older adults as continuing to mature as they age, and facing challenges specific to ageing. While there is some loss in

cognitive speed and in remembering novel, irrelevant information, it is proposed that older adults develop a cognitive and emotional complexity that is gained through the accumulation of experience, particularly in their areas of life expertise. Increased androgyny in the behaviour and social skills of older people is viewed as being indicative of psychological maturity. However, old age is also a time when people meet specific challenges, which while also occurring in younger age groups, are more commonly experienced by older adults. Challenges in old age consist of serious life difficulties such as chronic illnesses and disabilities, the frequent grieving for the loss of loved ones, and preparing for one's own death. In this Maturity-Specific Challenge model of ageing, older adults are understood within the social-historical life experiences of their specific cohort and also in their present social contexts. Within such a framework, Knight (1996a) proposes that the theory and knowledge from gerontology can be applied to working with older adults to improve their psychological well-being.

### **POLICY INITIATIVES TO ASSIST POSITIVE AGEING**

As more people are living longer, there will be increased pressures on services to deliver interventions to meet the emotional as well as physical health needs of older people. In recognition of this, current perspectives of successful models of ageing, as outlined above, are used to inform policies and programmes both in New Zealand and internationally. These policies advance initiatives and strategies promoting positive, active ageing in order to enhance health and participation among older adults, and to ensure that adequate support services are available when they require assistance.

On the international scene, the World Health Organization (2002) has provided a policy framework to inform the formulation of action plans promoting healthy and active ageing which targets governmental decision-makers, the non-governmental sector, and the private sector. This framework approaches health from a broad perspective and encourages older persons' continued participation in family and community life. It offers concrete strategies to assist older adults to maintain their independent living and to continue to be involved in community life.

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The New Zealand government has also recognised the need to start planning policy initiatives to meet the needs of an ageing population. A set of policy strategies have been developed (Dyson, 2002) which provide a vision of older people participating fully in social and community life, and recognises older adults as both family and community members. Among other initiatives aimed at enabling the physical and mental health needs of older adults to be addressed, strategies encourage the development of social support programmes to reduce social isolation and loneliness among older people.

### **PSYCHOPATHOLOGY AMONG OLDER ADULTS**

A major challenge to the psychological well-being of older adults is the high incidence of depressive disorders found in later life. Depression is one of the most prevalent mental health disorders among older people, with rates ranging from 8-16% being found among community living elders in the U.S. (Blazer, 2002). In an international review of prevalence studies in community-dwelling older adults, Beekman et al. (1999) found an average prevalence of 13.5%. Laidlaw et al. (2003) have noted that depression is widespread in nursing homes, and rates of up to 20% have been found among residents.

The incidence of depression is associated with declines in daily functioning and well-being, and also with increased functional impairment, mortality, and service utilisation among older adults (Blazer, 2002). Blazer notes that, as depression is treatable, it may be a factor that when addressed, is amenable to interrupting the pathway to disability and service utilisation.

However, chronic depression is problematic and in 20-30% of patients, remission is incomplete after two years (Scott, 2000). Benazzi (2000) has found that prevalence rates of chronic depression can be as high as 53% among elderly outpatients compared to 40% of younger adults. Patients with chronic depression experience more severe impairments in psychosocial functioning and work performance, and they also attempt suicide more frequently and are hospitalised more often than those with acute depression (Keller et al., 2000).

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There is consistent evidence supporting higher prevalence rates of depression for women, and among older people living in difficult socio-economic conditions (Beekman et al., 1999). Depression is also more frequent among unmarried men, people who have few contacts with friends and relatives, and older adults with poor health and disabilities (Blazer, 2002).

Anxiety disorders are also common in late life, and may be more common than depression, with prevalence rates ranging from 0.7-18.6% being found (Wetherell, 1998). Wetherell's study also indicated that when symptoms that do not reach the criteria for any specific disorder are considered, prevalence rates in community samples increase to 20-25%. She notes that anxiety in older adults has not been adequately studied and suggests that this may be partly due to the lack of validation of instruments and criteria in an elderly population.

Wetherell (1998) also claims that anxiety is less clearly differentiated in older adults than younger people, and that there is an increased likelihood of comorbidity with depressive symptoms. Furthermore Cook, Orvaschel, Simco, Hersen and Joiner (2004) have noted that the clinical presentation of anxiety and depression in older adults may be different from their manifestation in younger aged populations. In older adults, the physiological components of anxiety could be a consequence of medical conditions or medications. Additionally the decreased positive affect typical of depression could be indicative of fatigue rather than depressed mood.

Positive and negative affect are two broad mood states that can be used to assess and distinguish between depressive and anxious symptomatology. These components of affect are described more fully in chapter 3. Negative affect (a mood state representing the extent to which a person is feeling upset or unpleasantly aroused versus calm and peaceful) is a distress factor common to both anxiety and depression. However, low levels of positive affect (a mood state reflecting the extent to which an individual is experiencing a sense of energy, enthusiasm, and pleasurable engagement) is relatively specific to depression (Watson, Clark, & Carey, 1988) and can thus be used to discriminate depression from anxiety. These two affect factors are indicators of subjective psychological well-being (or

distress) that are widely used in studies of general populations as they allow for depressive and anxious symptoms to be assessed, in the absence of clinical levels of symptomatology (Lang & Heckhausen, 2001; Watson & Tellegen, 1985). As such they are employed in the present study to measure psychological well-being in a community-living sample of older adults.

## CHAPTER 3

### AFFECT

#### POSITIVE AND NEGATIVE AFFECT

Research has indicated that the two broad independent factors, positive affect and negative affect, represent the major dimensions of mood (Watson, 1988; Watson & Tellegen, 1985). While Watson and Tellegen did not suggest that all emotional experience could be reduced to only two variables, they have found their affective structure to be robust and characteristic of affect at the most general level. The two dimensions can either be used to assess affect as a stable personality trait, (positive affectivity and negative affectivity), or mood (positive affect and negative affect), which can fluctuate greatly over time.

Positive affect represents a person's level of active and pleasurable engagement with the environment. High positive affect is a state of enthusiasm, energy, mental alertness, interest, joy, and determination, whereas low positive affect is characterized by sadness, lethargy, and fatigue. States of sadness and loneliness have relatively strong loadings on the low end of this factor (Watson & Tellegen, 1985). In contrast, negative affect reflects a person's subjective distress and unpleasurable engagement. High negative affect is characterised by feelings of anger, guilt, fear, tension, sadness, scorn, and disgust, with low negative affect being a state of calmness and serenity.

The distributions of positive and negative affect are also distinctive (Watson, Clark, & Tellegen, 1984). Positive affect shows a broad range of variation, whereas negative affect remains generally stable except for occasional reactions to stressful conditions, after which it returns to baseline. L. A. Clark and Watson (1988) claimed that positive affect fluctuates with the daily occurrence of events, whereas negative affect exerts its influence abruptly upon people in times of trouble, only to disappear just as quickly when the problem is over.

Positive and negative affect are theoretically orthogonal, and research has indicated low correlations between them (Watson & Clark, 1997). However, the independence of the two affect constructs, in children at least, has been queried by Lee and Rebok (2002). They found positive and negative affect to be significantly negatively correlated both cross-sectionally and longitudinally in a sample of school children. In their study of the independence of positive affect and negative affect, Reich, Zautra, and Davis (2003) reviewed both the bivariate view (in which the constructs are independent) and the univariate view (in which they operate inversely from each other), and concluded that they might both be valid under different conditions. They suggest that a more integrative view, the Dynamic Model of Affect, could be used to specify and examine which conditions would influence each model. Pruchno and Meeks (2004) found that at low levels of health-related stress a moderate negative relationship between positive and negative affect is found, whereas at high levels of stress, positive and negative affect become more strongly inversely correlated. Under high-stress conditions, both negative and positive affect have a stronger relationship to depressive symptoms than they do under low-stress conditions.

These mood factors are related to different types of events. Positive daily events are strongly related to positive affect but not negative affect, while negative daily events are strongly related to negative affect but not positive affect (Gable, Reis, & Elliot, 2000).

Positive affect has consistently shown a significant positive relationship with social activity, both in within-subject, and between-subject research designs. In contrast, negative affect has not indicated a clear or consistent association with social activity (McIntyre, Watson, & Cunningham, 1990; Watson, Clark, McIntyre, & Hamaker, 1992). McIntyre et al. found that social interaction and exercise led to increases in positive affect, but was not related to negative affect, whereas the stress of an imminent test raised negative affect, but was not related to positive affect. Furthermore, they claimed that a reciprocal relationship exists between social events and activity, and positive affect, with positive affect also acting as a proactive motivating force for active, pleasure-seeking behaviour.

In contrast, Watson and Clark (1984) found that negative affect levels were not influenced by the occurrence or non-occurrence of active, pleasurable experiences. Instead, negative affect was related to reactions to major crises and stressful events involving health problems, evaluation (e.g. exams), embarrassment, or failure. L. A. Clark and Watson (1988) also added short-term hassles to the list of events related to negative affect. Their data suggested that positive affect is linked to the experiencing of “rewards” (e.g. social activities or being on holiday), whereas negative affect is linked to “punishments” (e.g. health problems and hassles).

Folkman and Moskowitz (2000) have claimed that both positive affect and negative affect can co-occur during periods of chronic stress. During a period of ongoing stress many affect-inducing events occur, the majority of which would produce negative affect, which focuses attention on the problem and is associated with adaptive forms of action. However events that produce positive affect can also occur. Positive affect serves the adaptive role of broadening an individual’s focus and building resources that can become depleted under chronically stressful situations. Positive affect, in the context of chronic stress, may also buffer an individual against the negative effects of stress on physiological and mental health, and provide ordinary events with positive meaning. High levels of positive affect have also been found to protect old adults against illnesses, such as strokes (Ostir, Markides, Peek, & Goodwin, 2001).

Affect has implications for how others perceive depressed individuals. Research has found a substantial amount of support for the rejection of depressed people by others (Joiner, Alfano, & Metalsky, 1992). Marcus, Hamlin and Lyons (2001) refined this idea and suggested that interpersonal rejection is more a function of depressive negative affect than the absence of positive affect. Individuals with low scores of positive affect also indicated the least desire for future interaction with other people.

Affect has also been linked with personality traits. Costa and McCrae (1980) proposed a model of subjective well-being in which the personality traits of neuroticism and extraversion influence affect. They argued that components of extraversion influence positive affect or satisfaction, whereas components of neuroticism influence negative affect or dissatisfaction. Also, at a trait level, negative affectivity has been found to be

associated with neuroticism (L. A. Clark, Watson, & Mineka, 1994, 1994; Watson & Clark, 1984).

### **STABILITY OF AFFECT WITH AGEING**

On the whole, studies appear to support the stability of positive affect and the gradual decline of negative affect over time (Charles, Reynolds, & Gatz, 2001; Cheng, 2004). However, Kunzmann, Little, and Smith (2000) have noted that the evidence for age-related changes in negative affect is mixed, with some studies indicating stable levels of negative affect, but others pointing to an age-related decrease in negative affect. While cross-sectional studies suggest a negative relationship between age and positive affect, longitudinal evidence suggests that positive affect remains unchanged during adulthood, but declines during old and very old age (Charles et al., 2001; Kunzmann et al., 2000). Using samples from the Berlin Ageing Study (with an age range from 70 – 103 years) Kunzmann et al. found that cross-sectional and longitudinal analyses indicated age was negatively related to positive affect, but unrelated to negative affect. However, when functional health was controlled for, cross-sectional analyses indicated a positive relationship between age and positive affect, and a negative relationship was found between age and negative affect.

Charles et al. (2001) suggested that the decrease in negative affect in old age might be due to decreased levels of emotional and physiological arousal in reaction to emotional experiences for older adults than for younger adults. Moreover, older adults are less concerned about how others view them and are more likely to structure their environment in order to avoid negative interactions with others and maintain positive ones. According to the socioemotional selectivity theory, emotions are more salient for older adults, and they prioritise activities, including social interactions, along emotional lines more than younger adults do (Carstensen, 1992).

Cohort effects have been found for positive affect. In their longitudinal study, Charles et al. (2001) found evidence that older men from the cohort who were born around 1907 and responded in 1970 reported lower positive affect than the older men who were born around 1928 and responded in 1991. They suggest that living through the Great

Depression as an adult may have had a lasting effect on how people perceive and experience the world, resulting in lowered self-ratings of positive affect. They also suggest that older cohorts may be more reluctant to express their feelings.

### **DIFFERENTIATION BETWEEN DEPRESSION AND ANXIETY**

Watson, Clark, and Carey (1988) have noted that there has been a trend for measures of anxiety and depression to show a substantial amount of overlap, both in normal and clinical samples of a range of ages. As noted in chapter 2, this has been a particular problem with older adults, among whom anxiety and depression may be less clearly differentiated, and it may explain falsely low reported rates of anxiety (Cook et al., 2004; Wetherell, 1998).

Watson Clark and Carey (1988) claimed that positive affect and negative affect are two general mood-based personality factors that are related to the symptoms and diagnoses of anxiety and depression, and furthermore that positive affect, but not negative affect, can be clinically useful in distinguishing the two disorders. Mood data in both normal (Watson & Tellegen, 1985) and clinical samples (D. A. Clark, Beck, & Stewart, 1990; Lonigan, Carey, & Finch, 1994; Watson, 1988; Watson, Clark, & Carey, 1988) have suggested that anxiety is essentially a state of high negative affect, and has no significant relation with positive affect, but that depression is a mixed state of high negative affect and low positive affect. Thus positive affect appears to be the differentiating factor between anxiety and depression, with low scores in the factor being related to symptoms and diagnosis of depression.

An updated tripartite model of depression and anxiety (L. A. Clark & Watson, 1991) extends the ability of the theory of affect to explain the distinctions between the two disorders by including the physiological experiences. In this model, anxiety and depression can be differentiated by two dimensions, namely positive affect and physiological hyperarousal (which is reflected by somatic tension, such as shortness of breath and dizziness). Positive affect is specific to depression, while physiological arousal is specific to anxiety. Negative affect is a common distress factor that comprises the overlap between anxiety and depression.

The tripartite model has been supported in older populations. In a clinical sample, Cook et al., (2004) found negative affect to be significantly related to depression and anxiety symptoms, while positive affect was more highly correlated with depression than anxiety symptoms. Physiological hyperarousal was more strongly correlated with anxiety than depression, but the correlations were not significantly different from one another. Thus they found positive affect to be a better discriminator between depressive and anxiety disorders than physiological hyperarousal. However it must be noted that physiological arousal is particularly characteristic of panic disorder, which had a low occurrence in their sample.

However, Wetherell, Gatz, and Pedersen (2001) suggested that low positive affect might not be as specific to depression among older adults as it is in younger people. Their study of community-dwelling older adults indicated that low positive affect was associated with anxiety rather than depression. They also found a high correlation between anxiety and depression with a model containing distinct anxiety and depression factors fitting their data better than models with positive and negative affect factors. However, Cook et al. (2004) have noted that such factor structures are a common finding when items from general depression and anxiety scales are used to indicate tripartite dimensions. They claim that when more precise indicators of tripartite dimensions are used, models consistent with the tripartite view are supported.

It has been suggested that affective symptomatology of anxiety disorders, particularly generalised anxiety disorder, may be different in older adults than in younger populations. In their factor analysis of the PANAS (Watson, Clark, & Tellegen, 1988) which is a measure designed to assess positive and negative affect, J. G. Beck et al. (2003) found that a three factor model of affect fitted their sample of older adults diagnosed with generalised anxiety disorder better than the two factors of positive and negative affect. Their factor structure consisted of one positive affect factor, and two negative affect factors reflecting (1) anxiety and anger, and (2) guilt and shame. Items reflecting fear and anxiety were not strongly related to items reflecting guilt.

While the manifestations of positive and negative affect, and the usefulness of the factors in differentiating between anxiety and depression in older adults are still being

debated, assessment of positive and negative affect does provide an indicator of psychological well-being in non-clinical populations. As such, these two affect components have been used in the present study to assess psychological well-being in community living older adults.

## **CHAPTER 4**

### **SOCIOTROPY AND AUTONOMY**

#### **VULNERABILITY TO DEPRESSION AND ANXIETY**

Schematic distortions are a major component of the underlying cognitive biases that make older adults vulnerable to the development of depression and anxiety. Two such types of personality schema are sociotropy (which comprises a view of the self as interconnected with others and dependent on their acceptance or approval to maintain a sense of well-being) and autonomy (which comprises a view of the self as being separate, with a high investment in the independent achievement of meaningful goals). These concepts are discussed in depth in this chapter.

#### **SCHEMATIC DISTORTIONS**

A. T. Beck, Epstein, and Harrison (1983) and A. T. Beck (1983,1987) proposed that distortions in thinking, which manifest as a stream of negative automatic thoughts in the consciousness of an individual, underlie emotional disorders. Distortions in cognitive processing and negative automatic thoughts reflect the operation of underlying beliefs and assumptions stored in memory structures called schemas, which are the building blocks of cognitive organization. The term schema refers to a cognitive structure, which incorporates relatively stable beliefs and assumptions. A. T. Beck et al. (1983) defined schemas as “stable, general, underlying beliefs and assumptions about the nature of the world and how one relates to it” (p.2). They contain internal representations or beliefs that are abstracted from experiences or data received by the information-processing system and provide the basis of one’s interpretation of life experiences. Schema content occurs at different levels of specificity and generality. While some schemas are concerned with specific beliefs, others involve conditional assumptions, and still others represent core issues for the individual (D. A. Clark, Beck, & Alford, 1999). Once activated by a critical event, these schemas influence information processing, shape the interpretation of experience, and affect behaviour.

Depressed and anxious persons both exhibit schema-based distortions in interpreting life events. While anxiety is associated with cognitive appraisals of danger and an associated underestimation of personal ability to cope, depression is characterised by negative automatic thoughts based on the themes of loss and self-devaluation (Wells, 1997). Each disorder is characterised by biased cognitive processes involving disproportionately negatively interpretations, of either threat/danger (MacLeod, 1999) or loss/failure of a critical event. A. T. Beck, Emery, and Greenberg (1985) maintain that in individuals vulnerable to anxiety, high-level danger schemata selectively facilitate the processing of threatening information throughout the cognitive continuum. However, MacLeod (1999) has noted that research indicates that it is only implicit memory in clinically anxious individuals and high trait anxious non-clinical individuals that displays a memorial advantage for threat-related information, and that the relationship is unproven for explicit memory. Explicit memory is expressed in tasks such as recall and recognition that requires the conscious recollection of previous experiences. Implicit memory is expressed when previous experience influences performance on tasks that do not require the actual recollection of the previous experiences.

Although the content of the relevant schemas differs for depression and anxiety, the functional roles of the schemas are similar. In both anxiety and depression, the presence of negative schemas increases the likelihood that when faced with a schema-relevant stressor (e.g. an event involving loss or failure for depression, and an event involving threat or danger for anxiety) individuals become depressed or anxious (Gotlib & Abramson, 1999). A. T. Beck, Rush, Shaw and Emery (1979) have suggested that negative cognitions are latent in people prone to depression when they are not in periods of depression, but they come to the surface in salient negative situations. As these negative thoughts come to the person's consciousness, the person becomes more depressed, which leads to the thoughts becoming more salient and available to them. Miranda and Persons (1988) proposed that the negative cognitions associated with depression are the result of interactions between events, how a person evaluates those events, and personal schemas.

## THE ROLE OF ATTRIBUTIONS IN COGNITIVE BIASES

Trust or mistrust in close relationships has been found to play a causal role in the development of individual differences in cognitive biases, in the way of attributional or explanatory styles. Eisner (1995) found that in a sample of university students, mistrust predicted a pessimistic explanatory style (belief that the causes of negative events are internal, stable, and global), whereas trust predicted an optimistic style (in which causation of negative events is believed to be external, unstable, and specific). The role of negative family dynamics and developmental trauma as predictors of such depressive cognitive styles has been supported by Rose, Abramson, Hodulik, Halberstadt, and Leff (1994).

Children have been found to develop stable explanatory styles by the time they are nine years old (Nolen-Hoeksema, Girgus, and Seligman, 1992). Thus, by middle childhood they have developed characteristic ways of explaining the events that happen in their lives. Although for young children stressful life events seem to be the major precipitants of depressive symptoms, by middle childhood, a pessimistic explanatory style in reacting to negative events is significantly correlated with concurrent levels of depression and predictive of later depressive symptoms (Nolen-Hoeksema, Girgus, & Seligman, 1986; 1992). Those with more pessimistic explanatory styles are more depressed on self-report depression scales, and the correlation between explanatory style and depression increases with age. An episode of depression also seems to lead to the development of a more pessimistic explanatory style, which remains after the depressive symptoms have subsided (Nolen-Hoeksema et al., 1992).

The negative effects of a pessimistic attributional style on mood when faced with a negative event have also been found with adolescents. Metalsky, Halberstadt, and Abramson (1987) found that university students with a pessimistic attributional style experienced a more enduring depressed mood than those with an optimistic style after receiving poor exam grades. Abramson, Alloy, and Metalsky (1995) have noted that a multitude of cross-sectional and longitudinal studies examining the relationship between attributional style and depression have shown that the tendency to make internal, stable,

and global attributions for negative events is associated with severity of concurrent and future depressive symptoms in college students, patients, and other samples.

However, significant age differences have been indicated in the attributions made for positive and negative events between young adults and older adults. Lachman (1990) found that older adults were more likely than younger adults to attribute negative events to stable and specific causes. Their study suggested that if the causes of failure are expected to be chronic but not global, older adults are at a greater risk for helplessness in the future when they find themselves in similar situations. Also, the poorer that older adults perceived their health to be, the more strongly negative events were attributed to internal and global causes. But there was no significant relationship between health and attributions among younger adults.

In contrast to younger populations, Isaacowitz and Seligman (2002) found that when attributing causes to events of a health or cognitive nature, a more optimistic explanatory style in older adults predicted more depressive symptoms over time. An optimistic explanatory style consists of external, temporary, and specific explanations for negative events. They concluded that an extremely optimistic explanatory style might in some cases be maladaptive for community-dwelling older adults. This could be because the life stressors faced by older adults increasingly result from stable and global causes (such as friends in an ageing network dying), rather than temporary and specific causes. An optimistic explanatory style, with its tendency toward active problem-focused coping attempts, may not be amenable to managing such loss-related situations. Instead, strategies involving emotional or cognitive reframing could be more adaptive in the context of increasingly limited resources.

Among older people, explanatory style has also been found to have a direct effect on depressive symptoms, rather than a diathesis-stress effect (Isaacowitz & Seligman, 2002). These findings suggest that the adaptive function of explanatory styles in older adults is due more to how a person attends to, and organises the entire flow of information in their environment, rather than to their responses to discrete, major life stressors

The learned helplessness theory of depression includes anxiety as the first response to a stressful situation, which is followed by depression. Indeed, there is evidence that negative attributional styles are not specific to depression, but are also characteristic of outpatients suffering from social phobia and agoraphobia (Heimberg et al., 1989), and nonclinically socially anxious people (Alden, 1987) as well. Furthermore, Johnson and Petzel (1991) found that shy people who scored high in fear of disapproval and negative evaluations tended to show the pessimistic explanatory style in both affiliation and achievement situations, even when depression was controlled for.

In their revision of the learned helplessness theory which they called the hopelessness theory of depression, Abramson, Metalsky, and Alloy (1989) highlighted the development of a sense of hopelessness being a crucial cause of many forms of depression. They claimed that attributions are only important in that they contribute to a sense of hopelessness. While the syndromes of anxiety and depression share an expectation of uncontrollability, they differ in their negative outcome expectancies. Both anxious and depressed individuals feel helpless and believe they lack control, but only in depression do they give up and become hopeless about ever regaining control (Alloy, Kelly, Mineka, & Clements, 1990; Barlow, 1991; Barlow, Chorpita, & Turovsky, 1996).

Alloy et al. (1990) have noted that this line of reasoning is consistent with young children's responses to separation and loss. After separation from the attachment figure, the crying during the protest phase (the prototype of anxiety) is an attempt to regain control through reunion with their mother. However, if separation is prolonged and attempts at regaining control have failed, while some children will return to normal, others will lapse into a phase of despair or depression.

Abramson et al. (1995) and Gotlib and Abramson (1999) have found evidence that a pessimistic style of attributing negative events to one's own character flaws (internal, stable causes) also results in hopelessness. This style may predate, and therefore contribute to, anxious or depressive episodes that follow negative or stressful events. Evidence suggests that anxiety disorders such as panic disorder (with or without agoraphobia), obsessive-compulsive disorder, and post-traumatic stress disorder are

more likely to be accompanied by depression than are other anxiety disorders such as simple and social phobia and possibly generalised anxiety disorder (Alloy et al., 1990).

Schema theories can also partially account for the development of anxiety into later depression. A maladaptive cycle may be established in which concern about possible failure or negative outcomes causes anxiety, and the state of anxiety itself actually causes some failures or bad outcomes. As the cycle continues, depressive schemata based around the inevitability of failures or bad outcomes may develop or become activated (Alloy et al., 1990).

## **SOCIOTROPY/AUTONOMY**

A. T. Beck et al. (1983) and A. T. Beck (1983, 1987) proposed that two types of schema content, or belief systems, sociotropy and autonomy may interact with congruent stressful events, to bring about a specific vulnerability to the development of depression (the personality-event congruency hypothesis). These two cognitive schemas are also relevant to the clinical presentation (the symptom specificity hypothesis) and treatment of the disorder. While sociotropy and autonomy have been studied in younger age groups, there has been little investigation of the factors in older people. With the high rates of depression found among the elderly, as described earlier, the need for such research cannot be overlooked. As such, the present research aims to address this deficit.

Sociotropy refers to an individual's investment in positive interchange with other people. The primary orientation is toward seeking closeness with other people, and the individual derives a sense of well-being and worth from receiving support, nurturance, and connection from others. As such, a sociotropic person is dependent on these social inputs for gratification, motivation, direction, and modification of ideas and behaviour. Similar to the concept of dependency (Blatt, D'Afflitti, & Quinlan, 1976), the specific characteristics of sociotropic individuals are their need for people, in order to ensure their own safety, help, and gratification. Thus, they depend on stable, predictable relationships that provide them with nurturance, and continual reassurance that other

people are there for them. For such people, rejection is worse than aloneness, and leads to loss of confidence and diminished self-esteem, so they do not take any risks that might endanger their relationships. This can affect their ability to assert themselves within their interpersonal relationships. They also obtain pleasure from receiving from others (A. T. Beck, 1983). People with high levels of sociotropy can become socially needy, and overly dependent and demanding of others within their interpersonal relationships.

Autonomy refers to an individual's investment in preserving and increasing his or her independence, mobility, and personal rights. In order to maintain a sense of well-being, autonomous individuals need to be able to preserve the integrity and autonomy of their own domain, direct their activities, keep their freedom of choice without external constraint or interference, and attain meaningful goals. Similar to the concept of self-criticism (Blatt et al., 1976), the specific characteristics of the autonomous personality type are the holding of internalised standards and goals for achievement, which are often higher than the conventionally accepted norms. These people are less susceptible to external feedback, either criticism or praise, and are less sensitive to other people's needs and wishes. Being action-oriented, autonomous individuals are less reflective than sociotropic individuals, but are more focused on getting positive results, and tend to be direct and decisive. In the non-depressed state, their self-confidence and self-esteem is high. They strongly prefer their options to remain open, and hold dearly their freedom to initiate self-directed actions without being impeded by external directives or demands. Their self-esteem is based on attributes that enable independence, action, and versatility, and obtain pleasure from "doing" and reaching goals (A. T. Beck, 1983). Because people high in autonomy can feel constrained by external demands and the interference of others, they may be inclined to avoid relationships with others that may obstruct their ability to control their own lives, activities, and need for achievement.

Threats to both sociotropy and autonomy can become major challenges for older adults. Role changes involved in ageing can influence how individuals perceive their own personal effectiveness. Increased isolation through both their own selective withdrawal, and the disability and death of their peers, can impact on the sociotropic needs of older

adults. Also, the loss of physical health and independence can limit the ability of autonomous older individuals to maintain their sense of well-being.

While the concepts of sociotropy and autonomy (A. T. Beck, 1983), and dependency and self-criticism (Blatt et al., 1976) are similar, and have been used interchangeably in many reviews and studies, Robins (1995) has noted that there are several important distinctions between the concepts:

(i) *Need for approval*. Blatt viewed this as part of the introjective, self-critical configuration. While it is interpersonal in nature, it reflects concerns about self-worth. As such, it is included in the assessment of self-criticism in the Depressive Experiences Questionnaire [DEQ] (Blatt et al., 1976). However, Beck saw the need for approval as a sociotropic concern, and suggested that highly autonomous individuals are relatively indifferent to the praise or criticism of others. Therefore, need for approval is assessed under sociotropy in both the Sociotropy-Autonomy Scale [SAS] (D. A. Clark & Beck, 1991) and the Personal Style Inventory [PSI] (Robins et al., 1994). It has been suggested that the need for approval is a vulnerability factor for depression. Therefore these measurement differences may account for the stronger findings for self-criticism, in the event congruence hypothesis when the DEQ is used, than for autonomy when the SAS or PSI are used. The event congruence hypothesis (which is described more fully in the following section) proposes that depressive schemas are activated by events which are congruent with the schematic concerns relevant to an individual.

(ii) *Self-criticism*. For Blatt, self-criticism is an important and stable feature of the introjective personality, but Beck described highly autonomous individuals as self-critical only when they are depressed or fail to achieve their goals.

(iii) *Need for control*. Beck's concept of autonomy includes a need for control or mobility, but it is not emphasised in Blatt's concept of the self-critical personality. It is not assessed in the DEQ.

## **THE PERSONALITY-EVENT CONGRUENCE HYPOTHESIS**

Beck proposed that the personality schemas remain latent until they are activated by life events that are congruent with the sociotropic or autonomous concerns relevant to an

individual (A. T. Beck, 1987; D. A. Clark et al., 1999). The personality-event congruence hypothesis claims that for people high in sociotropy, depressive schema will be activated by negative events in the interpersonal domain, while negative events in the achievement arena will activate depressive schema for highly autonomous individuals. A. T. Beck (1983) claimed that the two dimensions of sociotropy and autonomy are orthogonal concepts, and while some people may be high on one or other of the modes, an even mixture may be present in some individuals. As such, people high in both sociotropy and autonomy are vulnerable to depression in the face of both interpersonal and achievement-oriented events. Beck notes that, while the two dimensions provide a general trend towards the way that a person views and acts on experiences, an individual may shift from one mode to another depending on the context of the situation. For example, if a situation threatens either the interpersonal or the individuality and goal-achievement domain, the attributes relevant to the particular domain may be stimulated.

Most of the research into the personality-event congruence hypothesis has focused on younger age groups. Among them, sociotropy has been strongly and consistently related to the development of depression. In support of the hypothesis, individuals high in sociotropy appear vulnerable to negative interpersonal events (Bieling, Beck, & Brown, 2000; D. A. Clark et al., 1992; Moore & Blackburn, 1993; Reynolds & Gilbert, 1991; Robins, 1990). Sociotropy has also been linked with a vulnerability to depressive reactions in the face of both interpersonal and achievement events (Allen et al., 1996; Robins & Block, 1988). However few studies have found the personality-event congruence hypothesis to hold true for autonomy with negative achievement events (D. A. Clark & Oates, 1995; Hammen, Ellicott, Gitlin, & Jamison, 1989; Hammen, Marks, Mayol, & De Mayo, 1985).

There has been little research into the personality-event congruence hypothesis with older people. However, support for the interaction between the personality characteristics of both sociotropy and autonomy and congruent life events in the prediction and occurrence of depressive symptoms has been found using the original version of the SAS (Mazure & Maciejewski, 2003; Mazure, Maciejewski, Jacobs, & Bruce, 2002) and the PSI (Morse & Robins, 2005). Also using the PSI to assess

sociotropy and autonomy as mediators of suicide risk among a sample of depressed community-dwelling older adults, Raffes (1999) found support for the hypothesis for people high in sociotropy with interpersonal events. However, he also found that PSI autonomy made a consistent, negative contribution to pathological outcomes. Raffes suggested that in a group whose social environment is characterized by relative isolation and biases against independent behaviour in older adults, high levels of autonomy may signify remedial efforts to disengage from dependency-support scripts.

### **STRUCTURE OF SOCIOTROPY AND AUTONOMY**

The mixed findings from the research into sociotropy and autonomy may be due to the subscales in the different measures used, and the combinations of vulnerability and adaptive components inherent within the subscales.

Sociotropy and autonomy have been proposed as vulnerability factors to depression. However the sociotropy and autonomy constructs each consist of more than one component, and research has indicated that while some components of each construct can lead to both vulnerability to the development of psychopathology, other components can provide protection against it. For example, in their analysis of the SAS-Rev subscales, D. A. Clark et al., (1995) found a factor structure which suggested that people who score highly in the Solitude component of autonomy in the SAS-Rev can feel cut-off and isolated from others, strengthening the link between solitude and dysphoria. However the other dimension of autonomy, Independence, indicated a sense of individualism, little need for the approval and acceptance of others, and a feeling of accomplishment in goal-directed strivings. Thus, they note that it is unlikely that SAS-Rev Independence is a vulnerability factor for negative affect, but it may even constitute a buffer against negative emotional states. They argue that the use of the SAS-Rev as a measure of personality vulnerability in depression should focus on the specific constructs of Solitude and Independence rather than on the more global construct of autonomy.

When Sato and McCann (1997) examined the five factors that emerge when the items of the SAS and the PSI are integrated, they found that both the sociotropy factors,

Sensitivity and Attachment, and the two autonomy factors, Insensitivity and Control, were related to depression, while a third autonomy factor, Achievement, was not related to depression. They claim that the differences between the Insensitivity/Control and Achievement components of autonomy reflect the distinction between reactive autonomy and reflective autonomy (Sato & McCann, 1997, 1998). Reactive autonomy is the tendency to function defensively and withdraw from interactions with others in order to avoid being influenced by them, and is related to interactions with the environment which are driven by negative emotions. On the other hand, reflective autonomy represents having a sense of freedom and choice about one's own actions, and is related to interactions with the environment, which are driven by positive emotion. As such the two components would be better treated as two separate scales (Sato & McCann, 2000). Similarly, Bieling et al. (2000) found that of the two autonomy subscales of the original SAS, the factor Sensitivity to Others' Control was minimally, but positively associated with psychopathology. However the factor Independent Goal Attainment was negatively associated with psychopathology suggesting that it may be associated with better adjustment.

Sato and McCann (2000) went on to suggest that Achievement might not actually be a component of A. T. Beck's (1983) concept of autonomy. Furthermore they also suggested that perhaps the Beck Depression Inventory [BDI] (A.T.Beck et al., 1979) which is commonly used to measure depression, might be more sensitive to sociotropic depression than autonomous depression. Thus the lack of support for the relationship between autonomy and depression may be due partially to the specific measures used in the assessment of sociotropy and autonomy as well as depression. They found that the BDI items reflecting symptoms such as self-dislike, self-accusation, and feelings of guilt, which are generally thought to be symptoms of autonomous depression, loaded on the sociotropy factor of the SAS.

While Sato and McCann (1997) found the two Sensitivity and Attachment components of sociotropy to be related to depression (as discussed above), when Rude and Burnham (1995) investigated the factors of the original SAS sociotropy and DEQ Dependency scales (both individually and combined), they found two stable factors, one characterized by a valuing of relationships and a sensitivity to the effects of one's

actions on others (Connectedness) and one which was characterized by anxious concerns about possible rejection (Neediness). While the Neediness factor was related to depression, none of the Connectedness items were. Mongrain (1998) refers to these dependency factors as mature dependency (Connectedness) and immature dependency (Neediness). However, while Connectedness may have benefits, Rude and Burnham caution against equating psychological health with the absence of vulnerability, and note that it may have costs as well.

The two sociotropic factors, Preference for Affiliation and Fear of Criticism and Rejection found in the original SAS by Bieling et al. (2000) correspond with Rude and Burnham's (1995) Connectedness and Neediness, and also appear to be similar to Sato and McCann's (1997) Attachment and Sensitivity. Both the Fear of Criticism and then and the Rejection components of sociotropy found by Bieling et al. (2000) were more strongly correlated with psychopathology than were their two autonomy factors, Independent Goal Attainment and Sensitivity to Others' Control.

### **STABILITY OF SOCIOTROPY/AUTONOMY**

Sociotropy and autonomy appear to be reasonably stable over time. Studies assessing the effectiveness of depression therapies have found sociotropy and autonomy, as measured on the SAS, to remain stable between pre-treatment and post-treatment assessments. This stability has been found over a period of six weeks (Mazure et al., 2000), over 16 weeks with correlations of .77 for sociotropy, and .72 for autonomy (Moore & Blackburn 1996) and over a 6-month period. Duran and Hammen (1987, cited in Hammen et al., 1989) reported test-retest reliability of .82 for sociotropy and .66 for autonomy. Robins, Ladd, and Luten (1990, cited in Ouimette & Klein, 1993) found that test-retest reliability (5-13 weeks) was .80 for PSI sociotropy and .76 for PSI autonomy in a large undergraduate sample. It must be noted that both the SAS and PSI used in the above studies were the original versions, not the more recently revised ones.

While the schematic modes have been found to be relatively stable up to six months, it seems likely that the life events that people experience across longer periods in their adult development may present them with situations that would activate their

sociotropic and autonomous schemas at different time periods. Moreover, while some aspects of personality remain stable throughout the life span, there is some evidence for the continuation of personality development even into advanced old age. Field and Millsap (1991) found that as people reach old age there is a tendency to become more introverted and agreeable, with satisfaction remaining stable. Thus there may be subtle differences in cognitive responses to life events.

Adult developmental stages such as those discussed by Erikson (1980) address the different types of psychosocial concerns addressed during different life stages. The earlier stages of young adulthood involve issues concerning identity vs. identity diffusion and intimacy vs. isolation. Middle adulthood is concerned with generativity vs. self-absorption, and many older adults in the young-old age group may still be managing the demands of this stage. However, in late life, older adults who have successfully mastered the development of integrity develop an acceptance of their own sense of self. Their life experiences, and the role that significant others have played in their life is accepted as something that had to be, but the fact that their life is their own responsibility is also recognized. While acknowledging the relativity of experiential meaning they are able to accept and defend the dignity of their own life style. Thus a more fully integrated view of oneself is developed.

This theory has found some empirical support by Field and Millsap (1991), who found that measures of satisfaction and agreeableness as personality traits, either remained stable or increased in a longitudinal study of older adults. They suggest that their findings are indicative of the development of integrity and the acceptance of one's life in old age. The development of increased levels of cognitive and emotional complexity with the maturity of old age is also supported by Knight's (1996a, 1996b) Maturity – Specific Challenge model of ageing, which has been described more fully in chapter 2.

Old age has also been found to be a time of changing gender roles and less stereotypic gender-based attitudes. Knight (1996b) has noted that while the transition into the later years of life is relatively stable for men, women experience considerable personality reorganisation. Older adults also express higher levels of androgyny in their beliefs and behaviours than younger adults do, particularly when self-concept measures of

personality are used. He suggests that older men may become more relationship oriented, while women become more interested in self-assertion and career. It could well be expected that such reorganisation of personality might also influence the concepts of sociotropy/autonomy.

Also, schema-congruent events may not be as salient to the cognitive self-perception of older adults as they are to younger people. Mazure et al. (2002) have suggested that ageing might have the effect of emphasising different aspects of cognitive styles, for example in older people higher levels of autonomy may be more reflective of independence of action rather than a need for control. Also, clinical observations have indicated greater complexity of thinking in older adults, and more complex and subtler emotionality than that of younger adults. With maturity, older adults are slower to become emotionally aroused, but once aroused their emotions are less easily settled again (Knight, 1996a, 1996b).

The continuation of personality development into old age, and the subsequent increased complexity in cognitive and emotional responses regarding self-concept as described above, could result in the concepts of sociotropy and autonomy being experienced in different ways than in younger age groups. However, while studies have investigated the structure of the sociotropy and autonomy components among younger age groups (Bieling et al., 2000; D. A. Clark et al., 1995; Rude & Burnham, 1995; Sato & McCann, 1997), few studies have examined the stability of the sociotropy and autonomy components into old age. One study has found that the sociotropy and autonomy factors of the original SAS remained structurally stable in a sample of 63 older adults with dementia, who lived in residential care (Hilton & Moniz-Cook, 2004). Autonomy was associated with socially avoidant, strong willed goal-directed behaviour, while sociotropy was associated with striving for meaningful social contact. However, it must be noted that data was obtained via an informant-interview with a relative of the older adult with dementia. While the relative was asked to respond according to the person's pre-morbid characteristics, rather than their interpretation of the person's current behaviour, their responses may have been biased by the participant's dementia related functioning. Also, the length of time that had elapsed since the onset of dementia could have clouded the relative's perceptions of the participant's previous behaviour.

The present exploratory study attempts to address the lack of research into sociotropy/autonomy among the elderly. In particular, the structure of the sociotropy and autonomy factors in a non-clinical, community-dwelling group of older adults is investigated

## **SOCIOTROPY/AUTONOMY AND GENDER**

A. T. Beck (1983) suggested that women are more likely to focus on the interpersonal domain, while men are more likely to focus on the achievement domain. Paul and White (1990) have also echoed this argument in their review of the literature on the development of intimate relationships in late adolescence. Through differential development of self-identity, women develop a self-schema of sociality and relational interdependence with others (suggestive of sociotropy), while men develop a self-schema of independence and self-reliance (suggestive of autonomy). Although there are little or no differences in dependency between boys and girls in early childhood, the gender differences increase with age (Bornstein, 1992).

According to Gilligan (1982), Chodorow (1998), and Josselson (1983), male identity is defined through separation and a need for distinctive achievement, while female development is an ongoing process of attachment involving a fusion of identity and intimacy. As a female child develops, she identifies with the mother figure; thus her identity is steeped in her relationship with her mother throughout her development.

However, a male child must develop his identity separately from an identification with the mother figure. Therefore, the sense of development via relationships is not as innately ingrained for boys as it is for girls. Rather than being considered as separate or separated individuals, females consider themselves and others as being interdependent within web-like contexts of multiple human relationships. As Zilbergeld (1995) has noted, the focus for girls is their connection with others through relationship, whereas boys focus on themselves as self-reliant individuals involved in autonomous action. Also, many non-Western cultures, in contrast to the individualism found in Western societies, tend to view individuals as interdependent and connected rather than as

independent, and as such, self-schemas are contextual and relational. Rude and Burnham (1995), and Sato and McCann (1998) have argued that cultural norms are so involved in how we construct our experiences and in what we value, that they also incorporate conceptualisations of what is healthy and unhealthy behaviour, and influence the development of diagnostic categories and assessment instruments. They suggested that theories and their related measures, developed in our highly individualistic Western culture, might be biased against societies (and subgroups, such as women), which view themselves as interdependent and interconnected. For example, they found that the Dependency scales of the DEQ and the SAS confound the psychological dimension of connectedness (on which there are gender differences but which does not have negative consequences for adjustment) with the dimension of neediness, which is associated with depressive symptoms but not with gender.

These gender differences between the constructs of sociotropy and autonomy have found some empirical support in the research. Women have shown higher ratings of SAS-Rev sociotropy construct, while higher ratings are indicated on the autonomy construct for men (Sato & McCann, 1997). Female undergraduate students have been found to score higher on the sociotropy scales of both the revised SAS and the PSI, while male students had higher ratings on the Solitude subscale of the revised SAS and the autonomy scale of the PSI (D. A. Clark & Beck, 1991; D. A. Clark et al., 1995; Sato & McCann, 2000). Males' ratings were also higher on the Independence and Individual Achievement subscales of the SAS-Rev. (D. A. Clark & Beck, 1991; Sato & McCann, 2000). However, Robins, Hayes, Block, Kramer, and Villena (1995) found no significant gender differences using the SAS, and Robins and Luten (1991) also found no gender bias in the PSI.

However, the above studies have involved samples of younger adults and no studies have assessed gender differences between sociotropy and autonomy among older adults. The present exploratory study will seek to address this deficiency in the research.

## **SOCIOTROPY/AUTONOMY AND AFFECT**

There has been considerable overlap found between the concepts of sociotropy/autonomy, as defined by the PSI II (Robins et al., 1994) and positive affect/negative affect. In the PSI II, sociotropy is comprised of three factors namely Concern About What Others Think, Dependency, and Pleasing Others, and autonomy is also comprised of three factors measuring Perfectionism/Self-criticism, Need For Control, and Defensive Separation. It must be noted that in the SAS-Rev. the Perfectionism/Self-criticism factor is not assessed.

Jolly, Dyck, Kramer, and Wherry (1996) found that PSI II sociotropy and negative affect scores shared significant common variance and while facets of PSI II autonomy were inversely associated with positive affect, the relationship was only moderate. Sociotropy and negative affect appeared to be similar; depressed sociotropic individuals tended to be distressed and experienced a variety of negative emotional states, including fear, anger, sadness, guilt, contempt, and disgust.

Moreover, negative affect was non-specifically associated with sociotropic and autonomous depressive symptoms, while positive affect was primarily associated with autonomous depressive symptoms. Positive affect was also related to sociotropic depressive symptoms. As would be expected, considering the nonspecific nature of negative affect as outlined in the tripartite model discussed in chapter 3, negative affect was unable to discriminate anxious from depressive symptoms. However, low positive affect showed a strong relationship with autonomous depressive symptoms, such as a loss of interest in people, boredom, and feeling blocked from getting things done.

## **SYMPTOMS AND TREATMENT**

A. T. Beck (1983) explained how the depressive symptoms could differ between the two dimensions of sociotropy (characterised by reactive depression) and autonomy (characterised by autonomous depression). The autonomous types suffer from apparently refractory anhedonia, are self-critical and withdrawn, but are unlikely to cry. Their depressed mood is unremitting and hostile, and they are more likely to use active

forms of suicide. They do not voluntarily seek help, and are inclined to reject it when it is offered to them. They also attribute their difficulties to their own personal deficiencies or personal failures, and are more concerned about their personal effectiveness and inability to function. In sociotropic types, mood is characterised by feelings of sadness and loneliness. However, it is more labile than in autonomous types. Sociotropic individuals often request help and respond optimistically (but temporarily) to reassurance and support. They are more likely to have anxious depression and are more likely to use passive forms of suicide. Also, they are more concerned about personal attractiveness and other social attributes.

Support for the symptom specificity hypothesis has been mixed. Ouimette and Klein (1993) note that there has been little empirical evidence for the hypothesised relationship between sociotropy/autonomy and specific depressive subtypes. However, Robins and Luten (1991) found significant correlations between sociotropy/autonomy and the predicted clinical symptoms only, while Robins, Block, and Peselow (1989) found support for the symptom specificity hypothesis for sociotropy but not for autonomy. In their assessment of the symptom-specificity hypothesis in an elderly sample Allen, Ames, Layton, Bennetts, and Kingston (1997) also found support for sociotropy and sociotropic depressive symptoms, but autonomy was not predictive of either sociotropic or autonomous symptoms.

The progression of depression also differs between the constructs. Hokanson and Butler (1992) found that while there was no significant difference between sociotropy and autonomy in the occurrence of depression, there were significant differences in symptom severity. While sociotropic depressives showed unremitted depression over time, autonomous depressives showed a progressive decline in symptoms over time.

A. T. Beck (1983) also claimed that the concepts of sociotropy and autonomy have implications for how patients respond to cognitive therapy. Highly autonomous individuals are more interested in finding solutions to their problems rather than having a warm, empathic relationship with the therapist. For them, the main thrust of therapy is to clarify the client's goal, and therapeutic programmes should be designed to restore a sense of competence and optimism regarding important goals with less emphasis on

introspective work. Such a focus can correct the feeling of helplessness and incompetence and can be useful for reversing the psychological paralysis and apathy experienced by autonomous patients. Sessions need to provide the client with a framework to energise goal-directed motivations and between-sessions assignments should be structured to provide graded mastery experiences. The collaborative nature of the therapist-client relationship needs to be emphasised in order to give the client some sense of self-determination and freedom. Later in therapy it is necessary to examine the client's sets of underlying assumptions to reduce their extreme, rigid nature.

On the other hand, it is proposed that a personal relationship is important for sociotropic clients, and the therapy needs to be structured more in terms of helping rather than self-determination. Interpersonal strategies aimed at relieving feelings of abandonment and deprivation of gratification may be effective in alleviating the suffering of reactive depression. Personal anecdotes can be related to illustrate various points, and it is more important to develop a free and easy interchange. Introspective work is generally useful at an earlier stage in the therapy than with autonomous clients, and explanations and clarifications from the therapist are generally well received and utilized. Interpretations are highly valued by sociotropic clients, and the early therapeutic work can focus on the client's definition of his or her acceptability and lovableness, and how the client misinterprets other people's reactions and view them as negative.

D. A. Clark et al. (1999) have noted that few studies have examined the effects of personality dimensions of sociotropy and autonomy on preference and response to different forms of depression treatment. However clinical data has supported the differences between sociotropic and autonomous individuals regarding their preferences for either a warm empathic therapeutic relationship or a form of therapy which uses collaborative problem-solving and focuses on increasing mastery experiences (A. T. Beck, Epstein, Harrison, & Emery, 1983, cited in Nelson, 1994). Furthermore, sociotropic individuals have been found to show a greater improvement in cognitive group therapy than in individual therapy, while autonomous individuals showed greater reductions in depressive symptoms in individual cognitive therapy than in group therapy (Zettle & Herring, 1995; Zettle, Haflich, & Reynolds, 1992). These differential

improvements were found to be maintained after a period of two months (Zettle & Herring, 1995).

A meta-analysis by Scogin and McElreath (1994) of 17 studies examining the efficacy of psychosocial treatments (most of which were CBT or variants of the therapeutic approach) reported a mean effect size of .78 among older adults. However, these studies did not investigate the differential treatment hypothesis of A. T. Beck's (1983) theory.

Interpersonal psychotherapy (IPT), with its focus on loss of significant others and the relationship between mood and interpersonal events, can help highly sociotropic patients to link mood with interpersonal contacts and to help them recognise that by appropriately addressing interpersonal situations they may simultaneously improve both their relationships and their depressed mood. IPT can help sociotropic clients face the loss of a relationship, from either death (a common form of relationship loss in older adults) or through the relationship breaking up, and help them to explore their feelings about the losses. If there has been a failure to move through the normal mourning processes, grief can become a chosen problem area for older adults, and IPT can facilitate the mourning process. Clients are also assisted to reconstruct their lost relationships, recognising both the good and bad aspects of them and developing more balanced views of the relationships. They are helped to let go of the past relationships and to begin to invest in new interests and relationships. Clients can also learn to modify and improve their patterns of communicating with others in either unfulfilling or conflictual relationships. For older adults, conflict most often occurs with an adult child or a spouse (Gallagher-Thompson et al., 2000), which has implications for issues regarding caregiving of a chronically ill spouse, and caregiving of the client if they themselves are chronically ill.

While not investigating differences between sociotropy and autonomy in older adults, Miller et al. (1998) found IPT to be an effective treatment of late-life depression, with a recovery rate of 81% among patients receiving IPT in combination with anti-depressant medication. Mossey, Knott, Higgins, and Talerico (1996) also found that IPT resulted in symptom reduction and improvements in self-reported health among medically ill elderly experiencing subsyndromal depression. Long-term maintenance effects have

also been indicated in an efficacy study by Reynolds et al. (1999). When provided on a monthly basis as a maintenance therapy combined with placebo medication, IPT resulted in continued absence of major depression after a one-year period for 50% of patients, as compared to 20% of patients receiving the placebo alone.

Gallagher-Thompson and Steffen (1994) compared the effectiveness of brief psychodynamic therapy focusing on issues of separation/individuation and addressing patients' sense of loss, and cognitive-behavioural therapy which addressed the development of communication and assertiveness skills for depressed caregivers. Both of these foci are relevant to the concepts of sociotropy and autonomy. They found that clients who had been caregivers for a shorter period showed improvement in the psychodynamic therapy condition, whereas those who had been caregivers for at least 44 months improved with cognitive-behavioural therapy. Both groups of clients maintained their gains at one-year follow-up. These findings suggest that while brief psychodynamic therapy may be helpful for clients who are less chronically depressed (reminiscent of sociotropic depressive symptoms), cognitive-behavioural therapy may be more helpful to those who are more chronically depressed (reminiscent of autonomous depressive symptoms).

However, as Margison and Shapiro (1996) have noted, classifications are often integrated in therapeutic practice. Cognitive analytic therapy integrates strategies from cognitive and dynamic traditions, and many practitioners combine cognitive and behavioural or dynamic and interpersonal strategies. This allows therapy strategies to be used that are best suited for particular clients' needs and cognitive styles. Furthermore, as Gallagher-Thompson and Thompson (1995) have noted, for clients who are alone or lonely, the therapeutic relationship can be doubly powerful by providing a replacement for relationship losses.

There have been no consistent significant differences found in older adults between the efficacy of the three therapeutic approaches discussed above. Gallagher and Thompson (1982, 1983) and Thompson and Gallagher (1984) found that while cognitive, behavioural, and a relationship-oriented therapy all produced significant changes in symptoms in older adults, the maintenance of long-term gains were only found with the

cognitive behavioural therapies. However, those studies only used a small sample of 30 older adults. Using a larger sample of 109 older adults, Gallagher-Thompson, Hanley-Peterson, and Thompson (1990) and Thompson, Gallagher, and Breckenridge (1987) found brief psychodynamic therapy to be equally as effective for older adults as cognitive and behavioural therapies, both post-treatment and at two-year follow-up.

The National Institute of Mental Health Treatment of Depression Collaborative Research Program indicated that drug (imipramine) treatment was more effective in the short-term (but long-term benefits were not maintained) than either CBT or IPT for severely depressed patients (Elkin et al., 1995). In comparing treatment modalities, it must be noted that this study contains methodological flaws in that the CBT component was provided by untrained graduate students, rather than trained therapists (Elkin, 1994; Otto, Pava, & Sprich-Buckminster, 1995). However responsiveness to drug treatment has been found to differ between the sociotropic and autonomous dimensions. Peselow, Robins, Sanfilippo, Block, and Fieve (1992) found that patients who were high in autonomy responded better to drug treatment, than patients who were high in sociotropy. Furthermore, the differential response to medication is dependent not only on the presence of autonomous traits, but also on the relative absence of sociotropic characteristics (Spitzer, Endicott, & Robins, 1978). However, in general, therapies combining the use of anti-depressant medication and psychotherapies have been found to be more effective than psychotherapy alone (Gallagher-Thompson & Thompson, 1995, Reynolds et al, 1999). While CBT alone was more effective than despiramine alone (Gallagher-Thompson & Thompson, 1995), for clients suffering from loss-related depressive episodes, nortriptyline alone achieved lower remission rates than interpersonal therapy alone (Reynolds et al., 1999).

## **CHAPTER 5**

### **SOCIAL SUPPORT**

#### **INTRODUCTION**

A large body of research has indicated that social support is an important factor in successful ageing (Rowe & Kahn, 1998). Social support has consistently been indicated as a protective factor for older adults, against physical decline (Hays et al., 2001; Krause, 1997) and psychological distress (Krause, 2005; Wilson & Everts, 1995), including depression (Lynch et al., 1999; Newsom & Schultz, 1996) and anxiety (McCulloch, 1995). Furthermore, social support has been found to increase the chances of living longer (Liang et al., 1999). Kaniasty and Norris (1993) have noted that the positive effects of social support have been supported in the research, both as a buffer against the negative effects of stressful life events, and as a direct influence on well-being independent of life stressors.

#### **DEFINITIONS**

Social support encompasses many forms of activities, relationships, and subjective appraisals of assistance, and the social support literature and research has been plagued by a lack of consensus regarding a clear, distinctive definition of what social support actually is. In the early literature and research on social support, Caplan (1976) provided a broad definition of social support that includes any interaction with an individual in which significant others help that individual mobilise his/her psychological resources and assist him/her to master emotional issues, provide physical assistance or material aid, share difficult tasks or problems, and impart cognitive guidance. This definition includes both objective, tangible forms of support and more intangible forms of support, such as esteem building and feelings of closeness. These facets of social support have been included in some form in most of the recent measures assessing the receipt and perception of social support (Barrera & Ainlay, 1983; Kahn & Antonucci, 1980; Vaux, Riedel, & Stewart, 1987).

Different theorists have looked at the different functions of support and have used a variety of construct labels. However, two main distinctions between the types of assistance have been made: (1) instrumental support, which is the provision of material or informational services, and the giving of tangible goods; and (2) emotional support, which consists of providing the needy individual with the presence of a caring other, and the bolstering of a sense of belonging and self-esteem.

In their factor analysis assessing the validity of the Social Support Behaviors (SS-B) Scale, Vaux et al. (1987) identified five distinctive modes of support that are perceived to be available from support providers: Emotional Support, Socialising, Practical Assistance, Financial Assistance, and Advice/Guidance. They extended the distinctions between types of support to include two major sources of support, family and friends.

Vaux (1988) has claimed that social support is a multifaceted concept, and that no single definition of social support can be adequate. He viewed social support as being a higher-order theoretical construct, which consists of several distinctive theoretical constructs. He has distinguished three important social support constructs – support networks, the presence of supportive behaviour, and subjective appraisals of support, which are linked in a process of transactions between an individual and his or her social environment.

## **NETWORK SUPPORT**

The concept of social network has its origins in social anthropology (Mitchell & Trickett, 1980) and refers to the social ties and interpersonal relationships of an individual (Morgan, Patrick, & Charlton, 1984). The investigation of social networks looks at the structural aspects of relationships, for instance the number of people with whom an individual makes contact on a regular basis, what percentage of those people are friends or family members (Lakey & Lutz, 1996), and the density and degree of connectedness between network members. Thus networks examine the total social field within which the individual is embedded and can be used to explain one's level of social integration.

Larger networks with whom regular contact is maintained can be beneficial to well-being, and can be a source of instrumental support (Vaux, 1988). Also, because they are generally lower in density, at times of psychosocial transition they can be the source of new information, and provide access to new social roles and contacts (Hammer, 1983). However, Vaux has noted that while larger networks are able to meet a wider range of needs, their maintenance involves greater energy and time. This can reduce their effectiveness in times of distress. Research has indicated that women who knew more people from whom they could obtain support during periods of depression, also reported more interpersonal problems (Rook, 1984). Furthermore, not all interactions with people are supportive ones and Rook found that problematic social ties had a greater impact on well-being than positive social ties.

Smaller, dense networks are important in the management of crises, as they play an important role in maintaining a positive social identity and the provision of emotional support (Hammer, 1983). However, they are also associated with greater levels of psychological distress, poorer mood, and lower self-esteem in women (Vaux, 1988).

Although it is often assumed in the research literature that network size and frequency of social contacts are reasonably stable, measures of these network factors have been found to change over time. This can reflect the changing nature of relationships, particularly in older adults, for whom network losses can occur through death and illness or disability (Bowling, 1997).

Mueller (1980) has noted that, in the general population of younger age groups, there are usually 24-40 people in an individual's primary network, of which 6-10 are intimately known. However, Lang and Carstensen (1994) found the older adults of 60 years of age in the Berlin Aging Study (BASE) had an average of 16 to 17 people in their social network. This number of social partners was reduced, in a linear fashion, to about six individuals for those aged 104 years of age. The smaller network size among the old-old was mainly accounted for by a reduction of less intimate social partners, while the number of very close partners remained stable with age, at about six individuals with age (Lang & Carstensen, 1994).

According to Carstensen's (1992) socioemotional selectivity theory reduced rates of social interaction in later life are due to the strategic gradual changes in selection processes throughout the lifespan. For younger adults, who are learning about the world and themselves in it, the social motive of information seeking is more prominent, so they desire social contact with a wider range of new people. However the social motive of emotion regulation increases in importance for older adults who are less future oriented. Therefore, for them, familiar and intimate social partners who provide support and engender feelings of emotional gratification are preferred over novel contacts. So as people age, they interact with fewer people as they withdraw from casual social contact, while maintaining or even increasing their involvement in relationships with close friends and family (Lansford et al., 1998). However, Felton and Berry (1992) have found that larger network sizes are related to reduced negative affect and increased positive affect.

Carstensen (1992) has claimed that her theory of socioemotional selectivity is consistent with Baltes and Baltes' (1990) selective optimisation with compensation model of ageing. Carstensen sees the socioemotional selectivity theory as being an application of selective optimisation within the social world. Older adults manage the emotional and physical resources available to them so that the most important and rewarding relationships to them are maintained, while the relationships of lesser importance are discarded. Their ability to rely on the intimacy of shared histories with a select few who provide them with self-esteem and positive emotional experiences is viewed as serving a compensation function. Regardless of the size of an individual's network, the presence of at least one or two confidantes is a major protective factor across all ages, particularly when experiencing stressful or negative events (Robinson & Garber, 1995).

While older adults report less frequent contact with network members than younger adults, across cohorts they are more satisfied with the current number of friends and the size of their network (Lansford et al., 1998). Thompson and Heller (1990) found that if individuals with weak ties with family members were highly embedded in a friendship network, their well-being scores were the same as those with strong ties with their family. A New Zealand study by Wilson and Everts (1995) has found support for older

adults' satisfaction with their social contacts, but only for older Pakeha. They found that older Chinese and Samoan adults wanted more contact with their families. They suggest that the Europeanisation of the adult children has led to a decay in the traditional focus on family which older adults in these cultures still expect.

B. R. Sarason, Pierce, and Sarason (1990) have noted that contact with family members is negligible, or even negatively, related to morale, whereas contact with friends is positively related to morale. Kaniasty and Norris (1993) have also noted that the relationships of older adults involving non-kin have consistently shown a positive relationship with their psychological well-being. While Pinquart and Sorensen (2000) also found that the quantity of social contact with friends was more closely related to well-being than the quantity of contact with family members, the quality of contact showed a stronger correlation with well-being than quantity of contact, particularly the quality of contact with adult children.

### **RECEIVED SUPPORT**

Although the terminology used differs, researchers working on the functions of social support have highlighted the distinction between available and received support. Received support refers to the perception of past events, rather than to the perception that support will be available if needed, which is based more on present and future expectations.

Studying the support that people receive from others in specific situations or in the past, involves two conceptualisations of social support which carry slightly different connotations from each other (B. R. Sarason, Sarason, & Pierce, 1990). Enacted support, or administered support, reflects the provider's perspective and focuses on actions that others perform to assist a particular person. Received support, on the other hand, is concerned with the recipient's view and focuses on the recipient's account of what he or she noted as coming from others that was either helpful or intended to be helpful, is usually gathered from the self-report of the recipient. Obviously, these two definitions would result in different accounts. Sarason and colleagues have noted that

disagreement between the two reports has usually been due to the givers' reporting that they gave more support than the recipient reported receiving.

The quality of the social support a person receives from others is more important to well-being than the quantity of support received. Once a support provider has recognised that the other person needs support, then they must be able to determine what type of help is needed, in order to provide effective support.

Matching support to the needs of the stressful situation has been hypothesised to be a major determinant of whether support is beneficial (S. Cohen & McKay, 1984; S. Cohen & Wills, 1985). In their theory of optimal matching, Cutrona and Russell (1990) proposed that desirability, controllability, and life domain (assets, relationships, achievement, and social roles) determine the strains, challenges, and needs of life events which indicate what types of socially supportive behaviours are most likely to alleviate stress and lead to good health outcomes. Dunkel-Schetter and Bennett (1990) have noted that, given such a needs-fit model of support, it would be necessary to use support measures that are specific to the stressful situation of interest in order to test the buffer effects of received support.

Measures of received support, or of enacted support, have been found to be positively correlated with both negative life events and symptomatology. This may be due to the possibility that the support that a person receives may be a function of not only who is available to be supportive, but also the perceptions by others of the individual's need for help and support.

However, both the recognition that a potential recipient needs assistance and the help-seeking behaviour of a distressed person can sometimes suggest a failure in coping, either due to a person's ineffective skills or because of the severe nature of the event (B. R. Sarason et al., 1990). Sarason and colleagues have suggested that the receipt of support may have a negative effect on the self-esteem of the receiver, because it might be interpreted as confirming their personal inadequacies, or it may also produce feelings of obligation or guilt, leading to dysphoric feelings. Coyne, Ellard, and Smith (1990) found that in married couples coping with a heart attack, sometimes a supportive

person's actions, which seem to be helpful when viewed in isolation, can prove to be counterproductive owing to their negative implications for the recipient's needs for a sense of autonomy or self-efficacy. This can threaten the self-esteem of both the helper and the recipient.

Therefore received support represents a picture of support availability confounded by the individual's apparent coping skills, and the degree of severity of life stress that he or she is perceived by others to be experiencing. A person's exposure to stressful life events may result in support from others in the person's social network, because others are aware of the negative event, because they see the person as needing help, or because the stressed person actively solicits support.

Thus the willingness to communicate one's needs and request assistance is an individual difference that is likely to influence how much support one actually receives.

Independent of the number of potential support providers available, positive beliefs about help seeking and internal locus of control have been found to be associated with greater support mobilisation (Eckenrode, 1983).

Different sources of support serve different support functions. Litwak (1985) proposed a task-specific model in which different sources of support typically provide different types of support. Research has indicated that family members are likely to provide instrumental support, while friends more often provide emotional support and companionship (Crohan & Antonucci, 1989; Depner & Ingersoll-Dayton, 1988; Felton & Berry, 1992; Kaniasty & Norris, 1993; Seeman & Berkman, 1988). Heller (1993) has claimed that the sense of belonging and self-esteem provided through wider friendship ties may be more important to the subjective well-being of older adults than family ties. Thus, if family support is not available, friends can be turned to. However, the reliance on family members for care and assistance is particularly pertinent as older adults become less able to care for themselves (Rook, 1987; Thompson & Heller, 1990).

Furthermore, in his functional-specificity model, Weiss (1974) claimed that specific forms of support are more effective for the recipient if met within certain relationships. Although friends provide less assistance than family members do, they provide the

companionship that is necessary for personal fulfilment and satisfaction in later life. Felton and Berry (1992) found that reassurance of worth was more likely to be provided by friends and was also more strongly related to well-being when provided by them rather than family members, while reliable alliance or instrumental support was best provided by family members and was more beneficial when provided by kin.

Rook (1987) suggests that in old age, kin and peer relations may be most satisfying if they provide complementary resources. Older adults prefer to turn to family members in the first instance for support, particularly to adult sons for financial aid, and adult daughters for practical care and assistance (Iecovich & Lankri, 2002).

However, leisure activities occur more often among friends than family members, and are more likely to involve reciprocity, a sharing of interests, and positive affect. Rook (1987) found that among older women, reciprocity is greater among interactions with friends than with adult children. This can be explained by the different types of support provided to and received by friends and family. Older adults are more able to reciprocate emotional and esteem support with friends, but less able (or willing) to provide instrumental support to family members. Reciprocity was also more strongly related to satisfaction with friends than with children. She found that while reciprocity in exchanges with friends was associated with older women's satisfaction with their friendships, no relationship was found between reciprocal exchanges with adult children and satisfaction with the children. However, while family relationships, especially with adult daughters, show less short term reciprocity, they are more likely to be governed by a more long-term form of reciprocity stored up over time when it was the parent who provided the care to the child (Depner & Ingersoll-Dayton, 1988; Heller, 1993).

### **PERCEIVED AVAILABILITY OF SUPPORT**

The importance of perception in social support is evidenced in the highly consistent finding that it is the perception of social support that is most closely related to health outcomes (Wethington & Kessler, 1986). The perception that support will be available if needed is covered by the concept of perceived support or available support. The distinction between available support and support that is received seems sound, and

correlations between self-report measures of available and received support suggests only a weak association between the two (Dunkel-Schetter & Bennett, 1990). Also, studies that have linked perceptions of available support to actual support behaviours have found relationships between the two that are weak at best (Cutrona, 1986). In their factorial study of a measure of received support, the Inventory of Socially Supportive Behaviors [ISSB] (Barrera, Sandler, & Ramsay, 1981), and a measure of perceived available support, the Social Support Questionnaire [SSQ] (I.G. Sarason, Levine, Basham, & Sarason, 1983), McCormick, Siegert, and Walkey (1987) found that the two measures were distinct and separate. Three of the five factors that they obtained were representative of the ISSB, and two represented the SSQ, and the cross-loadings of the factors between the measures were negligible. Thus, even if the measure of received support is derived from the reports of what the recipients perceive they have been given by others, it is clearly different from their perception of the support that might be available should they wish or need it.

While it appears that our current perceptions of available support are based on past experiences with received support (Cutrona, 1986), the changing nature of our social relationships implies that the past receipt of support may often be a poor indicator of future experiences. Because our social networks and relationships are not static, the relationship between the past receipt of support and future available support should not be strong, especially over longer time periods (Dunkel-Schetter & Bennett, 1990).

People's perceptions of the availability of support are not always accurate. There is empirical and anecdotal evidence that suggests that the support provided to people experiencing stress may not match previous perceptions of availability. Either more or less support may occur than anticipated, and it may be more or less effective than expected (Dunkel-Schetter & Bennett, 1990). Dunkel-Schetter and Bennett report that under some circumstances where people who need support expected sustained high quality support to be available, effective support may dissipate or decrease in quality over time. While initial support provided to individuals may be skilful and efficient, subsequent events may leave them feeling relatively less supported. Over a period of time, support providers may experience a reaction similar to burnout, eventually

resulting in their complete withdrawal of support. Supporters may also feel frustrated or helpless if the support they provide does not alleviate the receiver's distress. Also, the support providers' possible overinvolvement in the recipients' outcome may lead to the erosion of initially helpful support.

Other discrepancies between expected support and received support may be related to the characteristics of a person's social network. Even though a person may have a large network, they may receive less support due to a diffusion of responsibility among network members, a response that can be observed in the bystander effect (Latane & Darley, 1974).

The results of the few studies that have compared the health-protective effects of available and received support (e.g. S. Cohen & Hoberman, 1983; Wethington & Kessler, 1986) have suggested that perceptions of available support moderate the relationship between stressful events and psychological outcomes, but that assessments of received support do not. These findings support the buffering effect on stress of available support, whereas no such effect was found for received support.

People with higher levels of social support also view themselves in a more favourable light than those with lower levels, and have higher self-esteem. They perceive that others also view them in such favourable terms as they themselves do. They also use their perceptions of their own social support as a reference for assessing the perceived support of others around them. Thus, differences in perceived social support are related both to what the person thinks might be available to him or her from specific others, and also to a working model of the availability of social support and of other personality characteristics of a generalised peer (B.R Sarason, Pierce, & Sarason, 1990).

B R Sarason, Pierce, & Sarason (1990) have defined the above type of perceived social support as a 'sense of acceptance'. In doing so, they emphasise what they have found to be the defining aspects of perceived social support: heightened interpersonal skills, a sense of self-efficacy resulting in adaptive behaviour in stressful situations, low levels of anxiety, positive self-image, positive views of interactions with others, and a positive view of others' adjustment. B. R. Sarason, Shearin, Pierce, and Sarason (1987) found

that perceived social support is a measure of a person's belief that he or she is valued not for superficial characteristics or performance, but rather as someone independently and unconditionally worthy of value (encompassed largely in measures of emotional support). They claim that this is best defined as the sense of acceptance, which they argue is an inherent, stable personality characteristic that contributes to the perception of social support separately from what the environment actually offers at any particular time. Indeed, I.G. Sarason, Sarason, Shearin and Pierce (1987) claim that the belief that there are people available who care about an individual and who would want to help when help is needed may be the key factor in the efficacy of social support in promoting both physical and psychological health. They go on to suggest that the perception of being loved and valued is central to the concept of social support.

Frequency of contacts with friends and family have been found to be less important predictors of psychological well-being and life satisfaction in older adults than their perceived levels of support (Newsom & Schultz, 1996; Pinquart & Sorensen, 2000).

Subjective support has shown a negative relationship to self-reports of depressive symptoms among older adults (Brummett, Barefoot, Siegler, & Steffens, 2000). More specifically, a prospective study of older adults living in a retirement community by Maher, Mora, and Leventhal (2006) indicated that depressive cognitions about self and others were predictive of changes in perceptions of social support. Their study indicated that each of the cognitive, mood, and somatic components of depression was related to perceived social support cross-sectionally, but only the cognitive component predicted changes in perceived support prospectively. Furthermore, the perceived adequacy of both emotional and tangible support has been found to account for more of the variance in depressive symptomatology than either the size or frequency of contact with network members (Antonucci, Fuhrer, & Dartigues, 1997). Perceived support, rather than received support also mediates the relationship between disability in later life and depressive symptoms (Taylor & Lynch, 2004). Greater levels of perceived support have also been found to indicate a more positive response to clinical treatment for those with subsyndromal depression (Oxman & Hull, 2001).

Overall levels of perceived support have been shown to remain stable into old age, although gender differences have been noted (Coventry, Gillespie, Heath, & Martin, 2004). These differences in perceived support between men and women are discussed at more depth in the gender section of this chapter. However, the research by Coventry and colleagues uncovered differences in perceived support between older adults and younger cohorts when specific sources of support were investigated. While a slight decline in perceived spousal support among older adults was found, there was an increase in perceived support from children. With age, a decline in perceptions of support from friends was also observed, which Coventry et al. suggest reflects the increased importance of family, and the reduction of social networks over time, and supports Carstensen's (1992) socioemotional selectivity theory of ageing.

The importance of family support to the well-being of older adults has been emphasised in the literature, and elderly women with low levels of perceived family support have shown poorer levels of psychological well-being regardless of their perceptions of the support provided by friends (Thompson & Heller, 1990). Family members are often the first source of support that older adults turn to for tangible and instrumental assistance. They often have higher expectations of support from family members than friends, expecting that in times of need their children will provide them with help, particularly financial care from adult sons and practical care and assistance from adult daughters (Iecovich & Lankri, 2002).

## **SOCIAL SUPPORT AND GENDER**

Research has consistently shown gender differences in the size and type of social networks, the amount of support that is given and received, and perceptions of social support. Throughout their life span, women have been found to have more intimate, confiding, and stable network ties than men of the same age (Leavy, 1983). Men's networks are larger and more diffuse, and are based on sociality and shared activities, while women's networks consist of more family than non-family members and are based on intimacy (Orford, 1992). These differences in the structure and nature of support networks between men and women appear to be adaptive, as women gain more benefit to well-being from intimate confidante support, while men gain more benefit

from acquaintanceship and group friendship (S. Cohen & Wills, 1985; Flaherty & Richman, 1989; McWhirter, 1990).

Women also have more close friends from whom they receive emotional support than men (Coventry, et al., 2004; Vaux & Stewart, 1982, cited in Vaux, 1985). While Vaux and Stewart reported that women are more likely to use their same sex close friends as confidantes, Reis (2001) has noted that women also tend to name both men and women as confidantes. Thus it is suggested that women may be able to interact intimately in many situations and with many more people than men are. However, Shumaker and Hill (1991) have noted that it is commonly reported that men are more likely to confide in women, particularly their spouse, and they claim that for men, being married is the greatest influence of support satisfaction. Reis also found that spending time with a confidante was negatively correlated to reported loneliness. Therefore, for unmarried men and older men whose wives have died, this reliance on a spouse as a confidante can have detrimental effects on health and well-being.

House, Umberson, and Landis (1988) note that women both give and receive more support than men. Women's networks serve more functions than men's networks, and women receive more types of support, particularly emotional support (Fuhrer & Stansfeld, 2002; Shumaker & Hill, 1991). However women are also more likely than men to provide support of all forms to both family members and those outside of the family. It appears that gender differences in support provision and receipt have benefits to others, and costs as well as benefits to women. However, for women, being in a reciprocal support relationship results in greater support satisfaction (Shumaker & Hill, 1991).

Men also report lower levels of perceived support than women (Barnett & Gotlib, 1990; Coventry et al., 2004). I. G. Sarason, Sarason, and Shearin (1986) have noted that people with high levels of perceived support are rated, both by themselves and others, as more socially skilled than people with lower levels of perceived support. B. R. Sarason et al. (1985) found that women reported higher levels of perceived availability of support and were also rated by others as being more socially competent. This can be

reflected in women's greater ability to interact with others at an intimate level, as described above.

The gender differences in social support between men and women found in younger age groups continue into old age. However, as they age, men's networks decrease, while older women maintain their sources of support. Research has indicated that men's friendships and non-family activities decline with age, while women's friendships outside the home do not change (Wright, 1989). However, older males report slightly increased levels of overall perceived support with age, while older women indicate that they experience slightly decreased levels (Coventry et al., 2004).

For older men, wives are the major source of emotional support, while for women, children, friends, and relatives give significantly higher levels of emotional support than spouses (Depner, & Ingersoll-Dayton, 1988; Gurung, Taylor, and Seeman, 2003; Wright, 1989). Thus if their spouse dies, older men are at risk of losing their source of support and becoming lonely and isolated, resulting in lowered levels of well-being. However, with ageing, an increase in received support from children has been observed for both men and women (Coventry et al., 2004), which can be a protective factor for older widowed men.

## **SOCIAL SUPPORT AND AFFECT**

Not surprisingly, people's social and supportive relationships are related to positive and negative affect. Social support, as a coping strategy to deal with stressful events, has been found to predict increases in positive affect, which in turn result in lower levels of adverse health effects (Billings, Folkman, Acree, & Moskowitz, 2000). Also, participation in social activity is related to increased levels of positive affect (Watson et al., 1992), and even predicts increases in positive affect but is unrelated to negative affect (McIntyre et al., 1990).

Furthermore, Newsom, Nishishiba, Morgan, and Rook (2003) found that among older adults, positive social interactions may have an immediate influence on positive affect,

but negative social interactions have a longer-lasting impact on positive feelings. Their cross-sectional analyses indicated that positive interactions predicted positive affect, and negative interactions predicted negative affect. On the other hand, when longitudinal analyses were undertaken, negative social interactions predicted both decreased positive affect and increased negative affect in older adults, but positive interactions had no independent effects.

## **METHODOLOGICAL ISSUES**

Although the relations of social support to a variety of outcome variables has been extensively studied, the theoretical implications of these findings are obscured by poor comparability of the diversity of support dimensions, definitions and operationalisations, available support measures, and methods of eliciting information about support. B. R. Sarason et al., (1987) have noted that the relationships between social support and outcome variables depend on how the support construct has been operationalised and measured.

S. Cohen and Wills (1985) found that the buffering model of social support is supported when support measures assess specific interpersonal resources that directly match the needs elicited by stressful events, and when the functions or types of support are measured. On the other hand, the main effect model is supported when support is measured as a person's embeddedness in a social network (or social integration), and general effects are found on the dependent variables.

Findings also differ on whether the perceptions that individuals have regarding the support available to them or the support the individuals actually receive is measured. Measures of both forms of support are negatively related to health outcome variables, but perceived social support instruments usually show a negative relation to negative life events measures, while received social support instruments are usually positively associated with these measures (Barrera, 1985, cited in B. R. Sarason et al., 1987). Thus, depending on the type of support that is being studied, how the constructs are defined and operationalised, and the methods and measures used to assess them, determine the comparability of the findings.

The majority of social support measures assess perceived support (B. R. Sarason, Sarason, & Pierce, 1990). However, they differ in the constructs they measure and how they are measured:

- (1) Either adequacy or availability of support. Availability and satisfaction assess different dimensions - availability may be more closely related to social skills and life circumstances whereas satisfaction is more closely related to personality characteristics.
- (2) The assessment of what usually happens or what might be available if needed. If perceived support has a strong personality component, then it should be expected to remain relatively stable over time, which has been found to be so, in at least one study (I.G. Sarason et al., 1986). However, on the other hand, if the perceived support is based on experience, then the perception of support may deteriorate over time if the person experiences stress and does not believe that people in their support group are acting supportively, which research also supports (Lin & Ensel, 1984).
- (3) The use of global measurements of availability or those summing individuals' perceptions of support availability over events. The global generalised appraisal that one is supported may reflect a generalised appraisal bias that has become part of the individual's personality.
- (4) The separation of perceived support by function versus a general support factor. The functional approach to social support measurement is linked to the buffering hypothesis, and the basis for the functional approach is that if support is to be effective, it must match the need created by the stressor. However, some researchers (e.g. B. R. Sarason et al., 1987) have expressed dissatisfaction with the functional approach in the way that the scales representing different functions tend to be highly intercorrelated. The scales measuring the different functions often have intercorrelations as high as the subscale reliabilities, which suggests that the subscales are not measuring distinct constructs.

## CHAPTER 6

### THE PRESENT RESEARCH

#### AIMS

As indicated in the literature reviewed in the previous chapters, research has identified the cognitive styles of sociotropy/autonomy as being vulnerability factors to the development of depressive mood. On the other hand, social support is recognised as playing a protective role in the maintenance of mental well-being. However, very little research on the concepts of sociotropy and autonomy has been undertaken with older adults, and none has been undertaken with a New Zealand population. The present research seeks to address this lack of research, and explores the roles of sociotropy/autonomy and social support in the mental well-being of older adults living in the general community in New Zealand.

The main aims of the present study were twofold, (1) to examine the structure of the sociotropy/autonomy factors in a sample of New Zealand older adults, and (2) to investigate how the cognitive styles of sociotropy/autonomy influence older adults use and perceptions of social support. As such the research was run in two stages, with Stage 1 investigating the structure of sociotropy/autonomy, and Stage 2 investigating how the sociotropy/autonomy factors influence how older adults use and perceive social support from family and friends.

#### OBJECTIVES OF STAGE 1

While the schematic modes of sociotropy and autonomy, and the instruments commonly used to measure them, have been extensively investigated in younger age groups, particularly among student samples, there has been little research undertaken with older adults, and none has been undertaken with a New Zealand population. Yet it has been suggested in the literature that personality continues to develop well into old age (Field & Millsap, 1991) and that the later periods of development are accompanied with increased levels of cognitive and emotional complexity (Knight, 1996a, 1996b). This

may result in age-specific emphases on different aspects of cognitive styles, which could lead to sociotropy and autonomy being experienced by older adults differently than in younger age groups (Mazure et al., 2002).

The first study of Stage 1 investigated the structure of the sociotropy/autonomy factors in a sample of older New Zealand adults living in the general community, using the Revised Sociotropy-Autonomy Scale [SAS-Rev] (D. A. Clark et al., 1995). Principal Components Analysis was used to investigate the stability of the structure of the SAS-Rev sociotropy/autonomy components, and to determine their usefulness in the assessment of sociotropy/autonomy in older adults living in the general community in New Zealand.

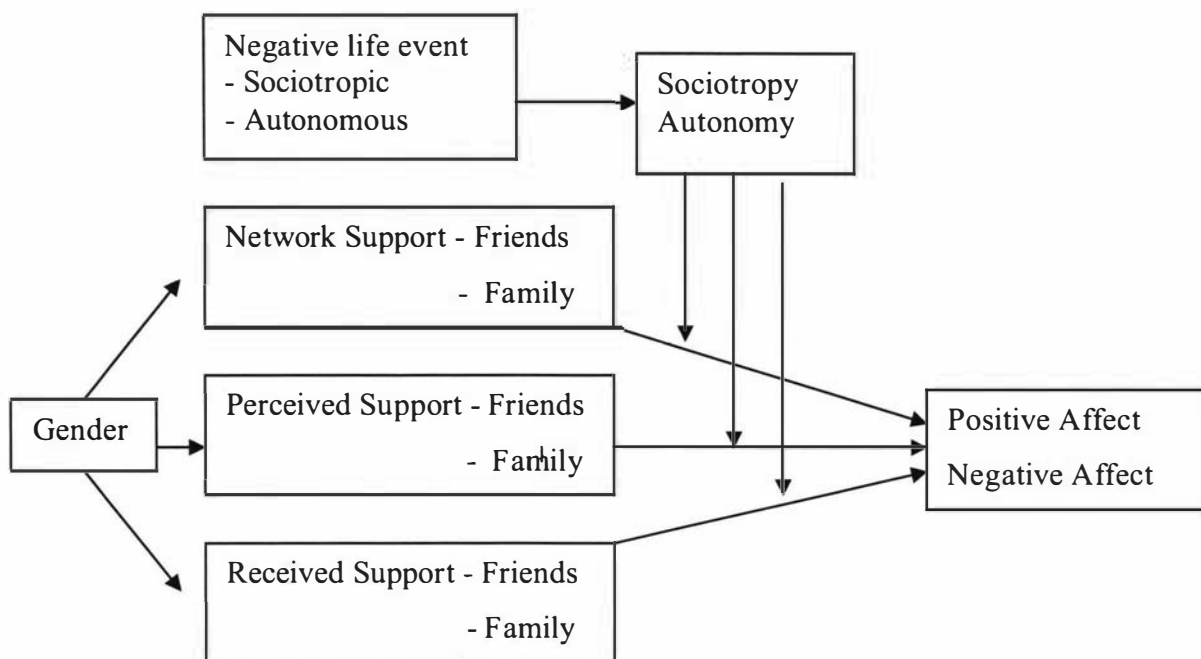
This was followed by Study 2 in which Principal Components Analysis was again used to investigate the structure of the SAS-Rev (D. A. Clark et al., 1995) sociotropy/autonomy components among a sample of New Zealand university students. The second study allowed the structure of the sociotropy/autonomy factors to be compared across the two New Zealand age groups. Furthermore, comparison of the component structures of the SAS-Rev between the two age groups in the present study, and between the component structure found by D. A. Clark et al. in their development of the revised SAS with American university students, enabled the effect of age on sociotropy/autonomy to be differentiated from that of culture.

## **OBJECTIVES OF STAGE 2**

Stage 2 investigated how levels of the different sociotropy/autonomy components influence (i) the size of older adults' support networks, (ii) the amount of support they receive from both family members and friends, and (iii) the amount of support the elderly perceive to be available to them from those sources.

In studying the relationships between the personality constructs of sociotropy/autonomy, social support, and mood, the model of sociotropy/autonomy as a moderating factor in the relationship between each of the forms of social support

(network, available, and received) from both family and friends, and mood, was used. A diagrammatic representation of this model is provided in Figure 1.



*Figure 1:* Model of sociotropy/autonomy as moderating factors in the relationships between support variables and mood.

Negative life events were included as activators of the sociotropy/autonomy constructs. However, it was beyond the scope of the present study to investigate the event-congruency hypothesis. Negative life events are also related to the accessing and provision of social support and have a documented negative influence on mood in later life (Mazure & Maciejewski, 2003; Mazure et al., 2002; O'Sullivan, 2004; Waite, Bebbington, Skelton-Robinson, & Orrell, 2004); Everyday hassles have also been found to influence negative mood functioning among older adults (Dulin & Pachana, 2000), particularly chronic stressors (Blazer & Hybels, 2005). As such, incorporating daily hassles into the analyses allows for their effects on both social support and mood to be controlled.

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While A.T. Beck's (1983) concepts of sociotropy and autonomy stem from his theory of unipolar depression, the present investigation looked at positive affect and negative affect as the dependent variables, rather than depression per se. As a non-clinical sample of older adults was used in the study, affect, rather than depression was considered more suitable as the dependent variable. Furthermore, as mentioned in chapter 3, research has indicated that positive affect and negative affect represent the major dimensions of mood (Watson, 1988; Watson & Tellegen, 1985), and can differentiate between depression and anxiety more clearly than many measures of depression (Watson, Clark, & Carey, 1988).

It was hoped that the findings would add to the knowledge base about the extent to which individual differences in older adults affect how social support from family members and friends is used and perceived. As such, findings from the current research can be used to increase the effectiveness of social support and therapeutic programmes for older adults, in order to enhance their psychological well-being and reduce their vulnerability to depression.

## CHAPTER 7

### METHOD

#### VARIABLES UNDER INVESTIGATION

The mood factors, positive affect and negative affect, were the dependent variables, and were measured as scores on the two scales of the Positive and Negative Affect Schedule [PANAS] (Watson, Clark, & Tellegen, 1988).

The different forms of social support were treated as both dependent and independent variables: (1) network support consisted of a self-reported listing of people who give the participants support and help, and their relationship to each person. The listed relationship was separated into either a friend or a family member; (2) perceived availability of support was measured as scores on the Social Support Behaviors scale [SSB] (Vaux et al., 1987); (3) Received Support was measured as scores on the enacted form of the SSB [SSB-Rec] (Vaux, Riedel, & Stewart, 1987); (4) satisfaction with Received Support was measured as a score on a Likert scale from 1 (very dissatisfied) to 6 (very satisfied).

The independent variables that were investigated were: (1) the personality dimensions of sociotropy and autonomy, measured as scores on the revised Sociotropy-Autonomy Scales [SAS-Rev] (D. A. Clark et al., 1995); (2) daily hassles, as activators of sociotropy and autonomy and to control for their influence on affect and support variables, were measured as scores on the Survey of Recent Life Experiences [SRLE] (Kohn & Macdonald, 1992). Other potentially confounding demographic variables, which were included in the analysis were: (3) gender; (4) age; (5) marital status; and (6) socioeconomic indicators: self-reported education level, self-reported pre-retirement occupation, which was then ranked according to the New Zealand Socioeconomic Index of Occupational Status [NZSEI] (Davis, McLeod, Ransom, & Ongley, 1997), and self-reported household income.

## RESEARCH DESIGN

Data was gathered using a cross-sectional, retrospective self-report method. The research was exploratory in nature, and consisted of two stages.

Stage 1 used Principal Component Analyses to explore the structure of the sociotropy/autonomy components of the Revised Sociotropy-Autonomy Scale [SAS-Rev] (D. A. Clark et al., 1995) in a sample of New Zealand older adults.

Stage 2 consisted of an assessment of the relationships between sociotropy/autonomy, the different forms of social support, and the resulting levels of affect. The research used a between-subjects design, using correlational and regression analyses to evaluate the influence that participants' sociotropy/autonomy levels had on network size, perceived availability of social support, and the amount of support received from family members and friends. Their resulting levels of positive affect and negative affect were also assessed, as indicators of psychological well-being.

## PARTICIPANTS

A sample of 492 adults aged 65 years and older, living in the general community within New Zealand, was used in the study. The sample was predominantly married New Zealand European females, from the middle class, aged between 65 and 75 years old. The mean age of the sample was 74.07 years old (66% were between 65 and 75 years old), with a range from 65 years old to 94 years old. The majority were female (57.1%), with 42.9% being male. They predominantly identified themselves as New Zealand Europeans or Pakeha (94.7%), with other ethnic groups being represented by Maori (2.8%), Pacific Islanders (0.6%), Asians (0.4%), and others (2.6%). Nearly two-thirds of the participants were married or living with a partner (61%), while 19.5% were widowed, 5.7% were divorced, and 3.9% were single and had never been married.

Typical of the age group being studied, only 9.4% had a university degree, while 21.5% held a trade or professional certificate or diploma. High school qualifications (at School Certificate or University Entrance level) were held by 35.1% of the sample, and 33.9% claimed no educational qualifications. The majority of the sample was currently retired (91.3%), while 5.5% held part-time employment, and 3.3% were still employed full-time. In order to allow comparability of statistics, the rating levels of the NZSEI were reversed, with 9 being Armed Forces and 0 being Elementary Occupations. As seen in Table 7.1, all NZSEI occupational groups prior to retirement were represented, with a mean level of 4.44 (indicating the occupation of “Service and Sales Workers”), and a *SD* of 2.2, although the largest group represented (23.8%) was that of “Trades Workers” at NZSEI level 2.

Table 7.1.

*Frequencies of NZSEI Occupational Groups Among the Older Adult Sample*

Level	Occupations	Frequency	Percent
0	Elementary Occupations	2	0.4
1	Plant/Machine Operators and Assemblers	19	3.9
2	Trades Workers	117	13.8
3	Agriculture and Fishery Workers	59	12.0
4	Service and Sales Workers	80	16.3
5	Clerks	30	6.1
6	Technicians and Associate Professionals	68	13.8
7	Professionals	73	14.8
8	Legislators and Managers	32	6.5
9	Armed Forces	12	2.4
	Total	492	100.0

Of the sample, 14.6% viewed themselves as “Working” or “Lower” class, 84.4% saw themselves as “Middle class” and only 1% identified themselves as “Upper class”.

The mean gross household income level was \$20,001-\$25,001 (level 4 of the income measure, *SD* 2.1). It must be noted that while 17.5% were within that range, 39% had a lesser income, while 43.5% had a higher income. In 40.9% of the households, only the respondent relied on that income, while in 56.7% of the households the respondent and one other person (usually a spouse) were supported by the income, and in 2.4% of the households, the income supported between three to six individuals.

While the response rate by 492 older adults to the survey was just under 50%, the sample was found to be representative of the New Zealand population aged 65 years and older in most demographic variables (Fletcher & Lynn, 2002; Statistics New Zealand, 2001, 2002). However, it must be noted that older adults between 65 and 75 were slightly over represented, comprising 66% of the present sample as compared to 55% of the New Zealand population aged over 65 years (Statistics New Zealand, 2001). Also, Maori (2.8% in the present sample as compared to 4% in the total older population), Pacific Islanders (0.6% as compared to 2% in the total older population), and Asians (0.4% as compared to 2% in the total older population) were under represented. This would be partly due to the use of the general New Zealand electoral roll alone, and not the Maori electoral roll. It is also recognised that older adults from ethnic groups for whom English is not a first language could have difficulty with the written questionnaire format used in this survey.

## **PROCEDURE**

A sample group of 1000 older adults aged 65 years and older was randomly selected from the New Zealand electoral roll and was targeted via a mail survey. Included in the initial approach was an invitation letter (see Appendix A), an information sheet (see Appendix B), and a questionnaire (see Appendix C). Two weeks later a reminder postcard (see Appendix D) was sent to those who had not responded, and two weeks after that a follow up reminder was sent to those who still had not responded. The second follow up consisted of a reminder letter (see Appendix E), and another copy of the questionnaire. Anonymity and

confidentiality of individual scores were assured, and it was emphasized that participation in the project was voluntary. Participants ( $N = 492$ ) responded by filling in the self-report questionnaire and sending it via freepost back to the researcher. By returning the completed questionnaire, the respondents indicated their consent to participate in the study.

Research participants were asked to fill in an anonymous questionnaire (see Appendix C) that included: (1) self-report demographic information which included (a) age, (b) gender, (c) ethnicity, and (d) income and occupation; (2) a shortened version of the revised Sociotropy-Autonomy Scale [SAS-Rev] (D. A. Clark et al., 1995) to measure sociotropy/autonomy; (3) a shortened version of the Schedule of Recent Life Experiences [SRLE] (Kohn & Macdonald, 1992) measuring hassles; (4) self-reported levels of support network size; (5) a shortened version of the Social Support Behaviors scale [SSB] (Vaux et al., 1987) to measure perceived availability of support; (6) a shortened enacted form of the SSB [SSB-Rec] (Vaux et al., 1987) to measure Received Support; (7) a Likert scale from 1 to 6 to measure satisfaction with Received Support, and (8) the Positive and Negative Affect Schedule [PANAS] (Watson, Clark & Tellegen 1988) to measure mood.

Participants who wished to receive a summary of the research findings ( $n = 314$ ) supplied their names and postal addresses on the back cover of the questionnaire. It was emphasized that the information provided on that form would be removed from the questionnaire and not be linked with the information they provided in the questionnaire, in any way. The summary of the research findings is included as Appendix J to this report.

## MEASURES

**Revised Sociotropy-Autonomy Scale [SAS-Rev]** (D. A. Clark et al., 1995). The original revised version of the SAS consists of three scales assessing the cognitive styles of Sociotropy (29 items), with Solitude (13 items) and Independence (17 items) both making up the construct of autonomy. Each item is scored on a scale of the percentage that the item describes the individual, ranging from 0% to 100%. Total scores for each scale are the summed totals of the relevant subscales. In order to keep the questionnaire to a manageable length for older participants, the 59-item scale was shortened to 42 items – the Sociotropy

scale consisting of 25 items, the Solitude subscale was 6 items, and the Independence subscale comprised 11 items. Items with loading values less than .40 in the principal component analysis of the 59 item scale with college students (D. A. Clark et al., 1995) were removed from the shortened version. The shortened version can be seen on pages 1-4 of Appendix C.

D. A. Clark et al. (1995) found their revised scales to have internal consistencies of  $\alpha=.87$  for Sociotropy,  $\alpha=.70$  for Solitude, and  $\alpha=.76$  for Independence. These values are comparable to a more recent study of the scales by Sato and McCann (2000), that also tested the scales on undergraduate students. The three scales had a low intercorrelation, although correlations of  $r = .35$  (D. A. Clark et al., 1995) and  $r = .27$  (Sato & McCann, 2000), were found between Sociotropy and Solitude for women. Good convergent and discriminant validity with other theoretically related measures have also been indicated (D. A. Clark et al., 1995). Alphas for the present shortened version were  $\alpha=.92$  for Sociotropy,  $\alpha=.74$  for Solitude, and  $\alpha=.82$  for Independence. However, moderate to strong correlations were found between the subscales.

**The Survey of Recent Life Experiences [SRLE]** (Kohn & Macdonald, 1992) consists of rating 51 statements concerning the extent that each daily hassle has been part of the respondent's life over the past month. Self-rating levels ranged from 1 (not at all part of my life) to 4 (very much part of my life). This response format does not confound occurrence and severity ratings, and is thus less vulnerable to contamination with psychological distress (de Jong, Timmerman, & Emmelkamp, 1996). Factor analyses calculated on the SRLE with a Dutch community sample, by de Jong et al. (1996) indicated a six-factor structure: Social and Cultural Difficulties, Work, Time Pressure, Finances, Social Acceptability, and Social Victimization. They found highly satisfactory reliability ( $\alpha=.89$ ) for the complete scale, with factor alpha scores of  $\alpha=.70$  for Social and Cultural Difficulties,  $\alpha=.79$  for Work,  $\alpha=.80$  for Time Pressure,  $\alpha=.71$  for Finances,  $\alpha=.71$  for Social Acceptability, and  $\alpha=.62$  for Social Victimization.

In order to keep the questionnaire to a manageable length for older participants, the 51 item scale was shortened to 24 items for the present study. Factor six, Social Victimization was removed due to its low internal reliability. In order for the particular kinds of daily hassles to be able to act as activating events for the constructs of sociotropy and autonomy, the remaining factors were divided into those that reflected sociotropic concerns (Social and Cultural Difficulties, and Social Acceptability) and those that reflected autonomous concerns (Work, and Time Pressure). Although it is recognized that it is relevant to older adults, the factor concerned with Finances did not fit into either sociotropic or autonomous concerns, and was thus discarded. Items in the remaining four factors were retained if their factor loading values were above .55. This resulted in a scale of 24 items (an overall reliability of  $\alpha=.90$ ), with two overarching factors: (1) Sociotropy,  $\alpha=.82$  (consisting of the sub-factors Social and Cultural Difficulties, and Social Acceptability); and (2) Autonomy,  $\alpha=.88$  (consisting of the sub-factors Work, and Time Pressure). This shortened version of the SRLE can be seen on pages 12-14 of Appendix C.

**Network Support** was measured by the participant listing up to 10 people who currently give them help or support, and listing the relationship of each listed person to the participant. Each support provider was then classified by the researcher as being either a family member or a friend. This measure can be seen on page 5 of Appendix C.

**Social Support Behaviors Scale [SSB]** (Vaux et al., 1987) consists of 45 items tapping five modes of support: emotional support, socializing, practical assistance, financial assistance, and advice/guidance, with respect to family and friends separately. It focuses on the availability of supportive behaviour, based on previous experience, and asks how likely a family member or friend would be to perform particular forms of supportive behaviour. Ratings are made on a scale of 1 (No one would) to 5 (Most people certainly would). The SSB total scale has shown good internal consistency ( $\alpha=.95$ ) for college student samples, and has also shown expected relationships with both support networks and support appraisals (Vaux & Wood, 1987). The five subscales have shown reasonable convergent

and divergent validity with other indicators of social support, and excellent internal consistency,  $\alpha > .82$ , for both family and friends (Vaux et al., 1987).

In order to measure both the perceived availability of support and the amount of support that had actually been received by participants in a comparable manner, the 45 item scale was divided into two formats; (1) **Social Support Behaviors Scale [SSB]** a scale measuring the perceived availability of support; and (2) **Social Support Behaviors Scale-Received Support [SSB-Rec]** a scale measuring the support that had actually been received. The SSB was shortened in this way in order to keep the questionnaire to a manageable length for older participants, and still allow comparability between the two abbreviated scales.

In shortening the scale, the factor loading values of the confirmatory factor analysis calculated by Vaux et al., (1987) were used. Firstly, the lowest two items of the Emotional Support factor were removed, leaving eight items (factor loadings  $\geq .73$  for family, and  $\geq .57$  for friends). Secondly, the lowest item of the Socializing factor was removed, leaving 6 items (factor loadings  $\geq .70$  for family, and  $\geq .83$  for friends). Thirdly, the lowest two items of the Practical Assistance factor were removed, leaving six items (factor loadings  $\geq .51$  for family, and  $\geq .78$  for friends). Fourthly, the lowest two items of the Financial Assistance factor were removed, leaving six items (factor loadings  $\geq .66$  for family, and  $\geq .61$  for friends). Lastly, the lowest two items of the Advice and Guidance factor were removed, leaving six items (factor loadings  $\geq .68$  for family, and  $\geq .57$  for friends). Then the items in each factor were randomly divided between the perceived and received formats of the SSB. This resulted in a shortened SSB scale of 18 items measuring Available Support (seen on pages 6-8 of Appendix C), and a shortened SSB-Rec scale of 18 items measuring Received Support (seen on pages 15-17 of Appendix C). Support received from family and friends was rated on a frequency scale from 1 (Never) to 3 (Often).

In the present study, excellent reliability coefficients were found for the shortened SSB. For the overall total Available Support, the SSB indicated that  $\alpha = .96$ . For overall Available Family Support  $\alpha = .95$ , while for the Available Friend Support  $\alpha = .96$ . For the five different

modes of support Emotional Support was  $\alpha=.88$  for family and  $\alpha=.90$  for friends, Socializing Support was  $\alpha=.78$  for family and  $\alpha=.83$  for friends, Practical Assistance was  $\alpha=.84$  for family and  $\alpha=.85$  for friends, Financial Assistance was  $\alpha=.81$  for family and  $\alpha=.85$  for friends, and Advice/Guidance was  $\alpha=.90$  for family and  $\alpha=.91$  for friends.

While the shortened form of the SSB-Rec also indicated acceptable internal consistency, alphas were somewhat lower than those for Available Support. For the overall total Available Support, the SSB indicated that  $\alpha=.93$  while for both overall family and friend support,  $\alpha=.90$ . For the five different modes of support, Emotional Support was  $\alpha=.81$  for family and  $\alpha=.71$  for friends, Socializing Support was  $\alpha=.64$  for family and  $\alpha=.69$  for friends, Practical Assistance was  $\alpha=.69$  for family and  $\alpha=.73$  for friends, Financial Assistance was  $\alpha=.77$  for family and  $\alpha=.88$  for friends, and Advice/Guidance was  $\alpha=.84$  for family and  $\alpha=.85$  for friends.

**Satisfaction with Received Support** was assessed on a Likert Scale ranging from 1 “Very Satisfied” through to 6 “Very Dissatisfied”. Responses were given for support received from both family members and friends. This measure can be seen on page 17 of Appendix C.

**The Positive and Negative Affect Schedule [PANAS]** (Watson, et al., 1988) contains two 10-item scales: Positive Affect and Negative Affect. In the present study, the subjects rated the extent to which they experienced each mood descriptor during the past two days. The ratings were on a five-point scale, from 1 “very slightly or not at all” through to 5 “very much”. Total Positive Affect and Negative Affect scores were obtained by summing the ratings for each set of 10 mood descriptors. The PANAS can be found in pages 9-11 of Appendix C.

Watson et al. (1988) have reported extensive data demonstrating the reliability and validity of these scales. When the measure was used with university students, using the time instructions of the “past few days”, Watson et al. found low intercorrelations between the

Positive Affect and Negative Affect scales,  $r = -.22$ , and high internal consistency reliabilities,  $\alpha = .88$  for the Positive Affect, and  $\alpha = .85$  for the Negative Affect scale. The present study found similar internal consistencies for the Negative Affect scale,  $\alpha = .85$ , but for the Positive Affect scale they were slightly lower,  $\alpha = .84$ . Correlations between the Positive Affect and Negative Affect scales were  $r = -.31$ ;  $p < .01$ .

**Demographic Data** was collected using self-report of (1) gender (male or female); (2) age in years, (3) ethnic group, being NZ European and Pakeha (collapsed together for analyses), Maori, Pacific Islander, Chinese and Indian (collapsed together as Asian for analyses), and other; (4) marital status; (5) several SES indicators (i) self-identified class level, (ii) highest education qualification attained, (iii) employment status, coded as employed or retired; (iv) self-reported occupation (or previous occupation if retired) of the main income earner in the household. NZSEI major occupation groups (Davis et al., 1997) were used to code occupations; (v) annual gross household income and the number of people dependent on the income. These measures can be seen on pages 18-20 of Appendix C.

## STATISTICAL ANALYSES

The statistical analyses were completed using SPSS for Windows, Release 11.5.2.1 (2003). The alpha level used for hypothesis-testing was  $p < .05$  (except where otherwise stated), and were two-tailed. In the analyses,  $p$  levels were not adjusted for multiple comparisons, as the only comparisons made were those hypothesised prior to the data collection.

In Stage 1 of the research study principal components analyses (PCA) were used to investigate the factor structure of the SAS-Rev in the sample of older New Zealand adults. The component structure that emerged was then compared with Principal Components Analysis results from a New Zealand university student sample.

Stage 2 of the study focused on the older adult sample used in Stage 1 and correlational analyses were used to assess the relationships between the sociotropy/autonomy factors, the social support variables, and affect. ANOVAs and chi-square tests were used to detect differences between the groups. Standard regression analyses were used to assess the

variance the sociotropy/autonomy variables explained in the social support variables, and how much variance in affect was explained by the different social support variables. A model in which the effect of the different forms of social support on affect was moderated by participants' sociotropy/autonomy levels was investigated using hierarchical multiple regression.

A response rate of nearly 492 of the targeted group of 1000 older adults was considered adequate for the statistical analyses used, however it must be noted that effect sizes could be expected to be small.

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## **CHAPTER 8**

### **STAGE 1 - STRUCTURE OF SOCIOTROPY/AUTONOMY**

### **RESULTS**

#### **STUDY 1 – OLDER ADULT SAMPLE**

##### **Missing Data and Data Management**

Missing data were handled in the following way: when participants failed to answer only a few items in a multi-item measure, their mean score for the scale was used. However, if they failed to answer a substantial amount (more than 50%) of a scale, it was considered to be missing data.

##### **Structure of Sociotropy/Autonomy Components Among Older Adults**

Of vital importance to the present research was the finding of significant correlations between the sociotropy/autonomy components of the SAS-Rev. These are provided in Table 8.1. While theoretically these constructs are independent of each other, as has been supported by previous research, moderate to strong correlations are indicated between them in the present sample of older New Zealand adults. This is of particular concern when looking at the correlations between the sociotropy and the autonomy constructs.

In order to look more closely at the structure of the SAS-Rev with the present sample, the 42 items of the scale were subjected to PCA. This form of analysis was used to investigate the scale structures due to the exploratory nature of this study. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above, the Kaiser-Meyer-Olkin value was acceptable at .918 as it is greater than .6 (Tabachnick & Fidell, 2001), and the Bartlett's Test of Sphericity reached statistical significance. Thus, the data was assessed as being suitable for component analysis.

Table 8.1

*Correlations Between the Sociotropy/Autonomy Constructss Among the Older Adult Sample*

	Sociotropy	Solitude	Independence	Autonomy Total
Sociotropy	1	.601**	.422**	.561**
Solitude		1	.491**	.782**
Independence			1	.927**
Autonomy Total				1

\*  $p < .05$ , \*\*  $p < .01$

Because it could not be assumed that the underlying components are independent, PCA conducting oblique rotation was used. The analysis revealed the presence of six components with eigenvalues exceeding 1, explaining 27%, 10.3%, 6.3%, 3.7%, 3.5%, and 3.2% of the variance respectively. The screeplot revealed a clear break after the third component, so three components were retained for further investigation. Items not loading higher than .30 on any component were discarded. The rotated solution (presented in Tables 8.2A, 8.2B, and 8.2C) revealed a number of strong loadings on all three of the components, Sensitivity to Others (hereafter called Sensitivity), Attachment, and Independence. All three components showed adequate reliability, with coefficient values of .83 and higher. Component 1 (Sensitivity) explained 9.66% of the variance, with Component 2 (Independence) contributing 5.81%, and Component 3 (Attachment) contributing 6.54%.

It must be noted that while these three new components provide a better fit to the present sample of older adults, they were still found to be correlated, as seen in Table 8.3. However, the relationships between the sociotropy components and Independence are weakened in the new structure, and the two sociotropy components are now more strongly

Table 8.2A

*Component 1: Interpersonal Sensitivity*

Items	Item Total Correlations	Component Loadings
29. I am uneasy when I cannot tell whether or not someone I've met likes me.	.70	.76
15. I am concerned that if people knew my faults or weaknesses they would not like me.	.68	.75
6. I get uncomfortable when I am not sure how I am expected to behave in the presence of other people.	.66	.74
29. If someone criticises my appearance, I feel I am not attractive to other people.	.67	.74
9. I am more concerned that people like me than I am about making important achievements.	.67	.73
7. When I am with other people I look for signs of whether or not they like being with me.	.62	.69
24. If a friend has not called for a while I get worried that he or she has forgotten me.	.60	.63
8. When visiting people, I get fidgety when sitting around talking and would rather get up and do something.	.54	.62
20. I censor what I say because I am concerned that the other person may disapprove or disagree with me.	.59	.61
13. I find it hard to pay attention to a long conversation, even with friends.	.51	.60
32. I get uncomfortable around a person who clearly does not like me.	.55	.56
31. I tend to fret and worry over my personal problems.	.56	.56
3. I do things that are not in my best interest in order to please others.	.51	.55
21. I am usually the last person to hear that I've hurt someone by my actions.	.52	.55
26. Often I fail to consider the possible consequences of my actions.	.51	.55
5. My close friends and family are too sensitive to what other people say.	.48	.55
38. I am more apologetic than I need to be.	.52	.54
4. I get lonely when I am home by myself at night.	.51	.54
19. I find it difficult to say "no" to people.	.50	.51

$N = 488, \alpha = .91$

Table 8.2B

*Component 2: Independence*

Items	Item Total Correlations	Component Loadings
28. If I think I am right about something, I feel comfortable expressing myself even if others don't like it.	.55	.68
27. When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get.	.57	.67
34. The possibility of being rejected by others for standing up for my rights would not stop me.	.54	.64
25. It is important to me to be free and independent.	.53	.62
23. I would rather take personal responsibility for getting the job done than depend on someone else.	.52	.61
16. I set my own standards and goals for myself rather than accepting those of other people.	.51	.59
18. If a goal is important to me I will pursue it even if it may make other people uncomfortable.	.47	.58
35. I need to be engaged in a challenging task in order to feel satisfied with my life.	.46	.57
41. I become particularly annoyed when a task is not completed.	.46	.52
39. I prize being a unique individual more than being a member of a group.	.42	.51
12. When I have a problem, I like to go off on my own and think it through rather than be influenced by others.	.44	.51
33. It is more important to be active and doing things than having close relations with other people.	.40	.50

$N = 488, \alpha = .83$

Table 8.2C

*Component 3: Attachment*

Items	Item Total Correlations	Component Loadings
42. I find it difficult to be separated from people I love.	.65	-.70
14. Having close bonds with other people makes me feel secure.	.57	-.66
11. Being able to share experiences with other people makes them much more enjoyable for me.	.53	-.64
22. I often find myself thinking about friends or family.	.51	-.63
37. I like to be certain that there is somebody close I can contact in case something unpleasant happens to me.	.54	-.63
2. I am afraid of hurting other people's feelings.	.56	-.61
10. The worst part of growing old is being left alone.	.54	-.60
1. It is important to be liked and approved of by others.	.51	-.56
40. If I think someone may be upset at me, I want to apologise.	.50	-.55
17. I worry that someone I love will die.	.52	-.55
36. I don't enjoy what I am doing unless I feel that someone in my life really cares about me.	.55	-.52

$N = 489, \alpha = .85$

related to each other than the two autonomy components were in the original structure. Initially, several component structures had been explored in the analyses, ranging from two to five components, and in all of the component structures, significant associations between the sociotropy and autonomy components were indicated.

Due to the poor fit of the original components to the present sample of older adults, the three new components were used in the Stage 2 analyses investigating the influence of sociotropy/autonomy on the use and perception of social support among older adults. Means and standard deviations of the components are provided in Table 8.4.

Table 8.3

*Correlations Between the Sociotropy/Autonomy Components Among the Older Adult Sample*

	Sensitivity	Attachment	Sociotropy Total	Independence
Sensitivity	1	.651**	.947**	.424**
Attachment		1	.861**	.421**
Sociotropy Total			1	.463**
Independence				1

\*\*  $p < .01$

Table 8.4

*Means and Standard Deviations of Sociotropy/Autonomy Components Among the Older Adult Sample*

	<i>M</i>	<i>SD</i>	<i>N</i>
<b>Sociotropy</b>			
Attachment	26.60	8.92	489
Sensitivity	23.99	14.07	488
Total Sociotropy	50.55	20.98	488
<b>Autonomy</b>			
Independence	30.48	8.63	488

## STUDY 2 - UNIVERSITY STUDENT SAMPLE

The previous analysis indicated that the structure of sociotropy/autonomy in the present sample of New Zealand older adults is different from that found among American students by D. A. Clark et al. (1995). In order to clarify whether the difference is due to age or culture, PCA was also run with sociotropy/autonomy data gathered from a group of younger adults from the Massey University student body, Palmerston North, New Zealand.

### Method

These data were gathered from an online survey which was posted on a website specific to this research project. Invitations to participate, with a link to the website were sent out on electronic graduate lists (see Appendices H and I). Invitations were also included in the university newspaper and posted around the student concourse (see Appendix G). The online survey included the shortened form of the SAS-Rev to measure sociotropy and autonomy (as shown in pages 1-4 of Appendix C), the shortened form of the SRLE to measure the presence of daily hassles (as shown in pages 12-14 of Appendix C), and questions assessing demographic data: gender, age, marital status, and ethnicity.

### Participants

The student sample consisted of 120 Massey University students who lived in Palmerston North, New Zealand. The mean age of the sample was 34.46 years old (*SD* 12.42), with a range from 17 yearsold to 80 years old. The majority were female (81%), with 18% being male. They predominantly identified themselves as New Zealand Europeans or Pakeha (75.8%), with other ethnic groups being represented by Maori (3.3%), Pacific Islanders (0.8%), Asians (9.2%), and others (10.8%). Just over half of the sample was married or living with a partner (56.3%), while 10.1% were separated or divorced, and about a third (33.6%) were single and had never been married.

### **Sociotropy/Autonomy Component Structure**

PCA was run on the 42 items of the SAS-Rev due to the exploratory nature of the analysis. Before performing the PCA the data was assessed for its suitability for component analysis. The correlation matrix revealed the presence of several coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .71, and Bartlett's Test of Sphericity reached statistical significance. Thus the componentability of the correlation matrix was supported.

The analysis revealed the presence of 13 components with eigenvalues exceeding 1, explaining 18.18%, 9.24%, 5.99%, 5.18%, 4.13%, 3.72%, 3.59%, 3.44%, 3.10%, 3.07%, 2.79%, 2.57%, and 2.51% of the variance respectively. The screeplot revealed a clear break after the second component. A less pronounced break after the fourth component was also indicated. The component matrix showed that most of the items loaded quite strongly (above .4) on the first three components, with fewer items (all below .4) loading on the other components. Items not loading higher than .30 on any component were discarded. A series of component structures were explored in order to compare the structure of the components with those of the structure found for older adults. They were a two component solution, a three component solution, and a four component solution. Because it could not be assumed that the underlying components are independent, PCA conducting oblique rotation was used. Items not loading higher than .30 on any component were discarded.

#### **Two Component Solution**

The two component structure indicated clear differentiation between sociotropy and autonomy. All of the sociotropy items sit in the Sociotropy component, except item 4 "I get lonely when I am home by myself at night", which did not load on either component. All of the Solitude items loaded on the Autonomy component, along with all the Independent Achievement items except item 41 "I become particularly annoyed when a task is not completed", which had a component loading of .35 on Independent Achievement, but also had a component loading of .39 on Sociotropy. The descriptive and reliability statistics for the two scales are provided in Table 8.5. While the component correlation matrix indicated

the components were very weakly negatively correlated (-.07), the two scales showed a slightly stronger correlation although the relationship was still weak,  $\rho = -.21, p < .05$ . Spearman's Rank Order correlation was used, as the Autonomy distribution was bimodal. However, previous research (Sato & McCann, 1997) has suggested that the concepts of sociotropy and autonomy are better conceptualized and studied as consisting of sub-components which work in different ways. As such, the two-component structure was not used in this study.

Table 8.5

*Descriptive and Reliability Statistics for Sociotropy and Autonomy Scales for the Student Sample*

	<i>M</i>	<i>SD</i>	<i>alpha</i>	<i>N</i>
Sociotropy	28.70	14.94	.88	120
Autonomy	21.26	8.63	.78	120

### Three Component Solution

The rotated solution indicated three components loading strongly (.3 and above) on D. A. Clark et al.'s (1995) three components, Sociotropy ( $\alpha = .88$ ), Solitude ( $\alpha = .74$ ), and Independence ( $\alpha = .67$ ). The three component structure showed adequate reliability coefficients, although the Solitude alpha of .67 is marginal. Only five items, namely items 41, 4, 3, 15, and 24 (as indicated in Tables 8.6A, 8.6B, and 8.6C), loaded on different components in the present study. A structure consisting of Sociotropy, Independence, and Solitude emerged with almost a replication of D. A. Clark et al.'s component structures,

Table 8.6A

*Component 1: Sociotropy*

		Item Total Correlations	Component Loadings
32.	I get uncomfortable around a person who clearly does not like me.	.63	.70
7.	When I am with other people I look for signs of whether or not they like being with me.	.61	.70
1.	It is important to be liked and approved of by others.	.60	.66
28.	I am uneasy when I cannot tell whether or not someone I've met likes me.	.54	.63
37.	I like to be certain that there is somebody close I can contact in case something unpleasant happens to me.	.58	.63
6.	I get uncomfortable when I am not sure how I am expected to behave in the presence of other people.	.53	.61
14.	Having close bonds with other people makes me feel secure.	.53	.59
30.	If someone criticises my appearance, I feel I am not attractive to other people.	.51	.59
36.	I don't enjoy what I am doing unless I feel that someone in my life really cares about me.	.52	.58
2.	I am afraid of hurting other people's feelings.	.54	.58
31.	I tend to fret and worry over my personal problems.	.52	.58
17.	I worry that someone I love will die.	.50	.55
20.	I censor what I say because I am concerned that the other person may disapprove or disagree with me.	.50	.54
38.	I am more apologetic than I need to be.	.45	.53
42.	I find it difficult to separated from people I love.	.45	.49
40.	If I think someone may be upset at me, I want to apologise.	.42	.49
10.	The worst part of growing old is being left alone.	.38	.44
19.	I find it difficult to say "no" to people.	.38	.44
9.	I am more concerned that people like me than I am about making important achievements.	.35	.41
41.	I become particularly annoyed when a task is not completed.	.33	.41
11.	Being able to share experiences with other people makes them much more enjoyable for me.	.34	.40
22.	I often find myself thinking about friends or family.	.32	.34

$N = 120$ ,  $\alpha = .88$

albeit with different loading strengths for items. The components, with their component loadings, can be seen in Tables 8.6A, 8.6B, and 8.6C.

Table 8.6B

*Component 2: Independent Achievement*

Items	Item Total Correlations	Component Loadings
34. The possibility of being rejected by others for standing up for my rights would not stop me.	.54	.66
16. I set my own standards and goals for myself rather than accepting those of other people.	.46	.63
27. When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get.	.50	.62
39. I prize being a unique individual more than being a member of a group.	.50	.60
23. I would rather take personal responsibility for getting the job done than depend on someone else.	.44	.58
28. If I feel right about something, I feel comfortable expressing myself to others even if others don't like it.	.41	.57
18. If a goal is important to me I will pursue it even if it may make other people uncomfortable.	.38	.52
12. When I have a problem I like to go off on my own and think it through rather than being influenced by others.	.40	.51
25. It is important to me to be free and independent.	.47	.48
35. I need to be engaged in a challenging task in order to feel satisfied with my life.	.25	.37
3. I do things that are not in my best interest in order to please others.	-.24	-.34

$N = 120$ ,  $\alpha = .74$

Table 8.6C

*Component 3: Solitude*

Items	Item Total Correlations	Component Loadings
13. I find it hard to pay attention to a long conversation, even with friends.	.56	-.67
15. I am concerned that if people knew my faults or weaknesses they would not like me.	.41	-.60
8. When visiting people I get fidgety when sitting around talking and would rather get up and do something.	.40	-.56
26. Often I fail to consider the possible consequences of my actions.	.40	-.50
33. It is more important to be active and doing things than having close relations with other people.	.26	-.48
24. If a friend has not called for a while I get worried that he or she has forgotten me.	.34	-.47
21. I am usually the last person to hear that I've hurt someone by my actions.	.28	-.44
5. My close friends and family are too sensitive to what other people say.	.23	-.42

$N = 120, \alpha = .67$

In the three component solution the two constructs of sociotropy and autonomy were found to be orthogonal. The only relationships found between Sociotropy (which had a bimodal distribution and was therefore tested for correlation using Spearman's Rank Order), Independence, and Solitude was a weak negative correlation between Sociotropy and Independence ( $\rho = -.24, p < .01$ ). Correlations can be seen in Table 8.7. In order to provide consistency, all correlations were analyzed using Spearman's Rank Order. Descriptive statistics of the 3-component solution are available in Table 8.8.

Table 8.7

*Correlations Between the Sociotropy/Autonomy Components Among the Student Sample*

	Sociotropy	Solitude	Independence
Sociotropy	1	.160	-.241**
Solitude		1	.173
Independence			1

*Note.* Spearman's Rank Order was used to analyse correlations.

\*\*  $p < .01$

Table 8.8

*Means and Standard Deviations of the Sociotropy/Autonomy Components Among the Student Sample*

	<i>M</i>	<i>SD</i>	<i>N</i>
Sociotropy	27.23	14.16	120
Autonomy			
Independent Achievement	19.58	7.26	120
Solitude/Interpersonal Insensitivity	3.14	3.44	120
Total Autonomy	22.72	8.79	120

### Four Component Solution

A four component structure of sociotropy/autonomy also emerged from the student data, with two sociotropic components; Sociotropy and Attachment, and two Autonomy components; Independence, and Solitude/Interpersonal Insensitivity. While the three component structure, described above, provided a better fit of the student data in the present study, this four component solution is worth a note as it is conceptually interesting. These four components can be envisaged as providing a vulnerability versus protection model for both the concepts of sociotropy (Attachment vs Sociotropy) and autonomy (Independence vs Solitude/Interpersonal Insensitivity). This component structure also provides a combination of the three component student structure, and the new three component older adult structure used in the present study. The four components, their item total correlations and component loadings are presented in Tables J 1A, 1B, 1C and 1D in Appendix J.

In the four component solution the two constructs of sociotropy and autonomy were found to be orthogonal. The only significant relationships found between Sociotropy, Independence, Solitude (which was positively skewed in distribution of scores and indicated kurtosis, and was therefore tested for correlation using Spearman's Rank Order), and Attachment, were a moderate positive correlation between Sociotropy and Attachment ( $\rho = .609, p < .01$ ) and a weak positive correlation between Sociotropy and Solitude ( $\rho = .215, p < .05$ ). In order to provide consistency, all correlations were analyzed using Spearman's Rank Order. Correlations between the components are shown in Table J.2, and descriptive data is provided in Table J.3 (see Appendix J).

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## **CHAPTER 9**

### **STAGE 1 - STRUCTURE OF SOCIOTROPY/AUTONOMY**

#### **DISCUSSION**

#### **STRUCTURE OF THE SAS-REV COMPONENTS**

While the results support the use of three components when using the SAS-Rev with older adults, the interpretation of the components that emerged in the present study differ from that of D. A. Clark et al. (1995) who found a single Sociotropy component and two autonomy components (Solitude, and Independence). They reflect instead two sociotropy components (Sensitivity and Attachment), and one autonomy component (Independence). Independence, as proposed by D. A. Clark et al. retained its component structure and remained stable over all component solutions. Mazure et al.'s (2002) claim that ageing autonomy is more about independence of action rather the need for control is borne out in the items included in the Independence component. Mazure et al. (2001) have argued that of the autonomous features, the need for control is the strongest predictor of depression. Therefore the present results suggest that for older adults, the autonomy aspect of Independence found in the new component structure might represent a protective factor against the development of depression.

However, Solitude items (SAS-Rev items 8,13,21,26, and 5) were absorbed into the Sensitivity component of sociotropy, suggesting that this concept may have a different meaning for older adults. Rather than being associated with the interpersonal insensitivity of autonomy as it is with the student sample studied by D. A. Clark et al. (1995), for older adults the Solitude items may reflect an interest in reserving one's emotional energies for valued interactions, according to Carstensen's (1992) theory of socioemotional selectivity. Furthermore, research has indicated that as people get older, they tend to prioritise goals related to emotional regulation, and place less importance on social acceptance (Lang & Carstensen, 2002). Also, when the content of the items is evaluated, it is possible that the

Solitude items are related to the cognitive slowing associated with normal ageing making complex interactions more difficult, thus reflecting the appearance of low levels of Sensitivity, rather than Solitude or Interpersonal Insensitivity per se.

The appearance of two sociotropy components is reasonably consistent with later research on the concepts of sociotropy and autonomy. Sato and McCann (1997) also found two sociotropy factors, Sensitivity to Others (similar to Component 1 in this study) and Attachment (similar to Component 3 in this study). They suggested that while Sensitivity to Others is a vulnerability factor to the development of depression, Attachment acts as a protective factor.

For the sample of older adults, Sensitivity, Independence, and Attachment were still found to be correlated, but less so than D. A. Clark et al.'s (1995) components of Sociotropy, Solitude and Independence. These findings suggest that the components within the concepts of sociotropy and autonomy are not clearly differentiated among older people. It has been argued in previous literature that sociotropy and autonomy are not independent constructs, and that they may be synergistic in their effect (Coyne & Whiffen, 1995).

Sato and McCann (1998) have suggested that sociotropy/autonomy are culturally determined. This is further supported by evidence of cultural differences in the way that information is processed (Park et al., 1999). Park et al. found that Asian people process information in a holistic manner, while Europeans are more analytical in their approach. Furthermore, the cultural differences become more pronounced in older adults when the basis of processing information is their knowledge of the world. While cultural differences might not be large between the American samples on which the SAS-Rev was developed, and the present New Zealand sample, they could still be expected to influence people's self-schemas and how they perceive themselves in their world. In order to determine if the differences in the structure of the sociotropy/autonomy components between the present sample of New Zealand older adults and the sample of younger American students used by D. A. Clark et al. (1995) are due to age or culture, it was necessary to compare the older adult sociotropy/autonomy structure with that of a younger New Zealand student group.

Throughout the three different structures explored, the student sample produced more conceptually differentiated component structures, which were more clearly aligned to those found by D. A. Clark et al. (1995) with American students in their assessment of their revised form of the SAS. In the present student sample, the components of Sociotropy, Solitude, and Independence clearly emerged. Of particular notice, was the manner in which Solitude consistently remained a separate component from other components throughout the examination of two, three, and four component solutions. In the present student sample, each of the SAS-Rev items fell into the same components as for the American student sample.

The components that emerged in the student sample were found to be orthogonal, thus supporting the theoretical independence of the sociotropy/autonomy constructs, at least for the younger adults. This suggests that for younger people, the Sociotropy, Solitude, and Independence components of sociotropy/autonomy are well differentiated.

The similarity between the component structures between the present New Zealand student sample and the American student sample on which the structure of the SAS-Rev is based, suggests that the different sociotropy/autonomy component structures found in the sample of older adults are not due to differences between the American and New Zealand cultures. Rather, it indicates that the nature of sociotropy/autonomy changes with old age.

The lack of clear differentiation between the constructs among older adults could be due to the higher rates of androgyny found in the personalities of older adults (Knight, 1993a, 1993b, 1996b), and their changing social roles. Knight has suggested that, contrary to the popular view that older adults are bound to traditional gender roles and values, they are more likely to hold androgynous self-concepts. Over the length of their lifetime older men and women have learned skills and behaviours from each other, and once free from the responsibilities of caring for a family, their behaviour and social skills become less constrained by sex role stereotypes. These more androgynous ways of acting in the world would influence how older adults view themselves and lead to a greater complexity in their self-schemas. Knight (1996b) claims that this personality reorganization is particularly

found in older women, and is more likely to be reported when subjective measures of self-concept are used. The SAS-Rev would thus increase the likelihood that more complex self-schemas would be reported in the present older adult sample.

## **COHORT EFFECTS**

The differences found in the present research in the structures of the sociotropy/autonomy components between the sample of older adults and the sample of university students suggests that the difference in the structure of sociotropy and autonomy in older adults is due to age. However, it must be noted that with the cross-sectional design used in the study, effects of ageing cannot be distinguished from cohort effects. Knight (1993a) explains cohort differences as being due to “membership in a birth-year-defined group that is socialized into certain beliefs, attitudes, and personality dimensions that will stay constant as it ages and that distinguishes that cohort from those born earlier or later” (p. 63).

Knight (1996b) has suggested that in order to be able to understand the inner world (or self-schemas) of older adults it is necessary to be able to take their life experiences into account. Furthermore, A. T. Beck et al. (1983) proposed that sociotropy/autonomy are long-standing characteristics which develop at an early age. When one looks at the time period in which the present New Zealand older adult sample grew up, it can be noted that there were specific stressors influencing the personality development of this cohort which would affect their experience of sociotropy/autonomy.

Most of the present older adult sample were born between the late 1920's and 1938. They were born to parents (the principal influence in a child's emotional development) who had experienced the depression of the 1880's, followed by World War I of 1914-1918, which decimated the young male population. Out of the 100,000 New Zealanders who fought in the war (about 9 percent of the whole population, and over 40 percent of all men of military age), 17,500 young men were killed and a further 41,000 were seriously injured. The New Zealand forces had a casualty rate of 59 percent, and in a country with a population of only just over 1 million, everyone either knew or was related to someone killed in the war

(Belich, 2001; Brooking, 2004). As soon as peace was announced, the ‘Spanish’ influenza pandemic of 1918 killed 8,600 New Zealanders, and contributed almost as many widows as the war (Belich, 2001). Such a shared grief and sense of loss would have had an obvious impact on the development of sociotropy, in particular Attachment.

A short, sharp recession set in during the early 1920’s which resulted in more readjustment and farming failure than the Great Depression of the 1930s. Along with the farmers, small businesses and small towns also suffered (Brooking, 2004). The threat to occupational and economic security would impact on concerns regarding Independence. Brooking notes that by the late 1920s, New Zealanders were “psychologically and economically insecure” (p.112). It was this era of insecurity into which the present sample of older adults were born, to parents already being negatively affected by the social and economic uncertainties of the period.

This insecurity intensified through the financial deprivation of the Great Depression of 1929-1935, and developed into what Belich (2001) has called a “kind of collective clinical depression” (p. 256). It was throughout this grim period of New Zealand history that many of the present sample of older adults lived their childhood. Atkinson (2005) further claims that the Great Depression’s “psychological imprint would remain long after the economy had recovered, instilling in New Zealanders a sense of anxiety and obsession with security that would last for half a century” (p. 268). While the hardship was not felt equally across the levels of society, it was felt at all levels. Unemployment was high with figures ranging from 10 to 32 percent of the workforce. Belich has noted that the lower figure does not include women workers, Maori, underemployed, and unregistered male unemployed. He also notes that while relief work schemes were initiated, they were characterised by low pay and poor conditions, and were only available to registered Pakeha male unemployed. For those fortunate enough to remain employed, wages were greatly reduced. The sense of economic despair of the time would greatly threaten people’s sense of Independence.

There was no social welfare assistance until 1934 when an unemployment benefit was introduced, and a more comprehensive social welfare policy did not occur until 1938 (King,

2003). Therefore the impoverished relied on the good will and assistance of other people for their survival. Thus Attachment to others would be important in maintaining assistive networks, as would interpersonal Sensitivity, particularly in light of the moral distinction at the time between “undeserving poor” (who were viewed as morally unfit or having brought their troubles on themselves and did not deserve to receive aid) and “deserving poor” who did deserve assistance (Barber, 1989; King, 2003).

The present sample of older adults repeated their parents’ experiences of loss, and resulting threats to Attachment schemas, with World War II (1939-45). New Zealand mobilized about 200,000 men from a population of 1.6 million, and lost almost 40,000 of them. One fifth of the male New Zealand population was either killed, wounded, or taken prisoner (Belich, 2001). Conscription was introduced earlier than in the previous war and also included older men, with the upper recruitment age being extended from 35 to 40 years of age (Brooking, 2004). This war was also more traumatic for New Zealanders at home, with the threat of Japanese invasion being a realistic fear.

It was also during World War II that women stepped into the workforce, in larger numbers than in World War I, in order to power the industries and services vacated by the men at war. Many of these essential occupations were formerly barred to women. This experience gave New Zealand women a taste for paid employment, and the opportunities of self-determination it offered them (even though rationing was in force, and there was little in the way of consumer goods to spend their money on). However, with the return of the men in 1945, women retreated back to their domestic role to contribute to the post-war baby boom. While both men and women welcomed the security of the 1950s with its full employment and economic prosperity, Brooking (2004) notes that not all women returned home, and many longed for the chance to earn their own money and keenly felt the threat to their Independence.

Thus it can be seen that through the difficult and stressful conditions experienced in their youth, the present older adults could well have developed different schematic aspects of

sociotropy and autonomy than younger adults who have grown up in a more secure social and economic environment. For the older adults, sociotropy could well be emphasised through the components of Attachment (through the threat of loss of loved ones, but also the importance of supportive others to provide assistance when needed) and Interpersonal Sensitivity (which was necessary in order to maintain the necessary supportive networks needed when in times of dire hardship). The Independence component of autonomy might well be the prominent aspect of autonomy for this older cohort. While it was important that one was able to stand on one's own feet in order to survive, the ability to do so was often undermined.

The emergence of a different component structure in the SAS-Rev in the older adult sample may also be a result of the items in the SAS-Rev having different meanings for older adults than for younger adults due to cohort differences in the use and meaning of language. Knight (1993a) has suggested that differences in communication and values between earlier and later born cohorts can lead to miscommunications between people from different cohorts. This is particularly the case when gradients of experience are being described, for example older adults are more likely to use terms such as "irritated" or "frustrated" to explain emotions which younger cohorts would describe as "anger". Such differences in understanding of item meanings could result in components being clustered in different ways than for younger age groups.

### **THE USEFULNESS OF THE SAS-REV FOR OLDER ADULTS**

The component structure that emerged from the student sample analysis attests to the reliability of the SAS-Rev among young adult age groups. However the long-term stability of the sociotropy/autonomy constructs is brought into question with the different components that emerged from the older adults' component structure.

Due to the specific set of stressors (depression and world war) experienced by the present older adult sample in their childhood and youth, that are so different to the more stable and

affluent environment of the younger sample's upbringing, it could be expected that different components of sociotropy/autonomy would be prominent for the different cohorts.

Furthermore, the concepts of sociotropy/autonomy may well be reported differently by older adults than younger adults, due to the hardships experienced as they grew up. Older adults may present a more stoic approach to stressors, either out of a sense of helplessness, or through the use of emotion regulation as a coping strategy. Conversely they could be overly sensitized to threats to specific self-schemas, and over report on some aspects of sociotropy/autonomy.

The concept of Solitude is clearly different for older adults than younger age groups, and further research is needed to assess the meanings of items for older adults. However, the concept of Independence was found to hold stable for both age groups.

The current findings suggest that the use of the SAS-Rev with older adults, at least using the component structure of the two autonomy components, Independence and Solitude/Interpersonal Insensitivity, and one Sociotropy component, as proposed by D. A. Clark et al. (1995) needs to be undertaken with caution. They also highlight the need for further research into the concepts of sociotropy/autonomy among older adults and different cohort groups. With this in mind, Stage 2 of the current research will take an exploratory approach using the sociotropy/autonomy structure of Sensitivity and Attachment (as the components of Sociotropy) and Independence (as the autonomy component) to assess how they influence how older adults use and perceive social support.

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## **CHAPTER 10**

### **STAGE 2 – SOCIOTROPY/AUTONOMY, SOCIAL SUPPORT, AND AFFECT**

### **HYPOTHESES**

#### **INTRODUCTION**

Six hypotheses were tested in Stage 2 of the study in order to examine the relationships between gender, the sociotropy/autonomy components, Network size, Available Support, Received support, and affect.

The two sociotropy components, Attachment and Sensitivity, and the single autonomy component of Independence were tested in the hypotheses, as they were found to provide a sounder fit of sociotropy/autonomy for the present sample of New Zealand older adults than the original SAS-Rev facets of Sociotropy, Solitude, and Independence (D. A. Clark et al., 1995). In order to be able to fully explore the nature of the three new components and how they are related to the other variables, each of the three components was tested and analyzed individually, as suggested by Sato and McCann (2000).

#### **HYPOTHESES**

##### **Hypothesis 1**

**That older women are more likely to have higher levels of Sensitivity and Attachment than older men, while older men are more likely to have higher levels of Independence than older women.**

The literature has proposed that through their psychosocial development, men and women form different types of self-identity (see chapter 4). While men develop a self-schema of independence and self-reliance, women develop a self-schema of sociality and relational interdependence with others. As described in chapter 4, research has also supported gender

differences between the sociotropy and autonomy components in younger age groups, with women scoring higher in sociotropy and men indicating higher autonomy scores. It was also suggested in chapter 4 that older adults experience higher levels of androgyny than younger age groups, and while this might reduce the impact of gender on self-schemas it is not expected to over-ride the effects of socialisation. Therefore, it was expected that older women would have higher Sensitivity and Attachment scores than older men would, and that older men would have higher Independence scores than older women.

### **Hypothesis 2**

**That older women are more likely to (i) have large networks, (ii) perceive there to be more support available to them, and (iii) receive more support than older men.**

The literature reviewed in chapter 5 indicates that women have more intimate networks which consist of more family members, than men. However as they age, men reduce their networks while women maintain their contacts both inside and outside the family. Therefore it was expected that older women would be more likely than older men to have large networks.

The literature indicates that older women's networks consist of more confidantes, with whom they are more intimate, than men's networks (see chapter 5). Women also consistently report higher levels of perceived availability of support than men. Therefore it was expected that older women would report higher levels of Availability Support than older men.

Because older women's networks are larger than men's, they could be expected to consist of more potential support providers, and consist of more people with whom they are willing to discuss their problems. Research has also indicated that people who ask for assistance are more likely to receive more assistance than those who do not ask (see chapter 5). It has also indicated that women also consistently report higher levels of Received Support than

men.. Therefore it was expected that older women would report more Received Support than older men.

### **Hypothesis 3**

#### **That levels of Attachment, Sensitivity, and Independence are related to Network size, and levels of Available Support and Received Support.**

Due to their general sociability and high level of interconnectedness, with others, it was expected that older people higher in Attachment would have large Networks. Also, through their involvement in a large network of potential helpers from whom they feel close enough to ask for assistance, it was likely that they would report higher levels of Received Support. As noted in Hypothesis 2 above, the literature indicates that it is people who are seen by others to need support, and those who ask for it, who are more likely to be given support. It was also likely that, due to their view of themselves as being connected with a network of people they feel a close bond with, they would have higher levels of Available Support.

Due to their over-investment in the approval of others, it was expected that older individuals higher in Sensitivity would have small Networks, as the personal cost of maintaining large networks would be too high for them. It was likely that they would have lower levels of Received Support as their neediness and insecurity may burn out supporters. It was also expected that they would report lower levels of Available Support due to their higher levels of social insecurity.

Due to their general lack of sociability, it was expected that people higher in Independence would have small Networks. They value their independence and would be less inclined to ask for assistance from others, therefore they would report less Received Support. Because they are less likely to view others as potential supporters and can feel constrained by too much interference from others, they were expected to have lower levels of Available Support.

#### **Hypothesis 4**

**That Attachment, Sensitivity, and Independence influence affect.**

Higher levels of the components expressed in the sociotropy concept have consistently been associated with depressed mood (a state of low positive affect and high negative affect), while research has shown mixed findings for high levels of autonomy (see chapter 4). It has been suggested that the Independent Goal Achievement facet of autonomy is a buffer against negative mood (Bieling et al., 2000). Also, Sato and McCann's (1997) autonomous component Insensitivity and Control have shown relationships with depression, while Achievement has not. Their Achievement component shares many of the concerns with the present autonomous component, Independence. Thus it could be expected that higher levels of the present autonomous component, Independence, would be related to increased Positive Affect and lower levels of Negative Affect, while increased levels of the two sociotropic components of Sensitivity and Attachment would be related to lower levels of Positive Affect and high levels of Negative Affect.

#### **Hypothesis 5**

**That (i) structure of Network, (ii) amount of Available Support, and (iii) amount of Received Support influence affect.**

As previously noted in chapter 3, increased positive affect has been associated with the experience of companionship and participating in pleasurable social activities. Therefore it was expected that older adults with large support Networks would experience increased levels of Positive Affect and decreased levels of Negative Affect.

Perceived social support has been found to act as a buffer against the negative impact of stressful events, through the perception that someone is there to provide support and assistance when needed (see chapter 5). The feeling of having support available from significant others can protect an individual from stress-induced depression. Therefore it was expected that older adults with higher levels of Available Support would report higher levels of Positive Affect and lower levels of Negative Affect.

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The actual receipt of social support has been found to have a main effect on mood, as noted in chapter 5. Due to the effects of normal ageing, older adults become more dependent on others to be able to get their needs met, and the literature reports that older adults have expectations, built out of a sense of long-term reciprocity, that their adult children will provide them with support and assistance when they need it. Therefore, it was expected that older adults with higher levels of Received Support would have higher levels of Positive Affect, and lower levels of Negative Affect.

### **Hypothesis 6**

**That the relationship between the social support variables and affect is moderated by the sociotropy/autonomy components.**

Research has suggested that the perceived availability of social support has a buffering effect between stressful events and mood (see chapter 5). However, there is little consideration, in the literature, that cognitive personality styles, such as sociotropy and autonomy, may act as a moderating component in the relationship between social support and mood among older adults. In exploring the present hypothesis, it was investigated if Attachment, Sensitivity, and Independence moderate the relationship between (1) older adults' levels of Available Support, and (2) their amount of Received Support, and Positive Affect/Negative Affect in the face of stressful events.

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## **CHAPTER 11**

### **STAGE 2 - SOCIOTROPY/AUTONOMY, SOCIAL SUPPORT, AND AFFECT**

### **RESULTS**

#### **DATA MANAGEMENT**

##### **Missing Data**

Missing data were handled in the following way: when participants failed to answer only a few items in a multi-item measure, their mean score for the scale was used. However, if they failed to answer a substantial amount (more than 50%) of a scale, it was considered to be missing data. When responses were not given for network size structure, and satisfaction with received support it was left as missing data, as it was considered that sample means could not adequately replace that particular missing data. When single item measures were unanswered (e.g. demographic measures), the sample mean response for the item was used. However, in some cases other information provided in the questionnaire could be used to determine the correct response (e.g. marital status could be determined if a spouse was previously listed in the structure of network support).

##### **Normality of Data**

In order to screen for normality of the data, all variables were handled as continuous scores, except for gender, ethnicity, marital status, and employment status, which were categorical. The three forms of social support (network size, perceived availability of support, and received support) were each divided into two variables – friend support and family support. Satisfaction with the support received was also divided in the same way, and the scoring for the two continuous variables was reversed in order to increase ease of comparison with other variables.

In order to determine the nature of daily hassles, in relation to sociotropy/autonomy, the SRLE was divided into two continuous variables, Sociotropic Hassles and Autonomous Hassles.

On inspection most of the data was found to be close to a symmetric distribution, and were retained as continuous variables, unless otherwise stated. However skewed distributions were found for the both Sociotropic and Autonomous Hassles, the Friend Network Support measure, Available Family Support scale, both Family and Friend Satisfaction scales, Negative Affect, age, marital status, education, employment status, and household income adjusted for dependents. All data reported was unimodal and no outliers were found.

Variables, which were not symmetrically distributed, were transformed in order to allow the appropriate analyses needed to test the hypotheses. As recommended by Tabachnick and Fidell (2001) the forms of transformation used were those which produced data distributions nearest to normal distributions. As such the Sociotropic Hassles (which was positively skewed) was transformed using the logarithm. Autonomous Hassles (which was also positively skewed) was transformed using the square root. While Family Network was normally distributed, Friend Network was positively skewed, and no simple transformation could be found to make it symmetrical. Therefore the two Network Support variables were both dichotomised into low and high groups split at the mean point for each scale. Thus Family Network was split into small (0-4 members) and large (5-10 members) groups. Friend Network was split into small (0-2 members) and large (3-10 members). Available Family Support was negatively skewed and was reflected and transformed using the square root. Family Satisfaction and Friend Satisfaction were both negatively skewed and no simple transformation could be found to make them symmetrical. Therefore both scales were dichotomised into dissatisfied and satisfied groups. Negative Affect was positively skewed and was transformed using the logarithm.

Where scale distributions were not symmetrical, the means and standard deviations of the untransformed distributions are presented below.

## DESCRIPTIVE RESULTS

Autonomous Hassles ( $M = 8.70$ ,  $SD = 6.7$ ) were twice as likely to be reported to be part of the participants' lives over the previous month than were Sociotropic Hassles ( $M = 4.40$ ,  $SD = 4.42$ ). The means and standard deviations of the untransformed distributions of both the hassles scales are reported here.

As can be seen in Table 11.1, considerably lower levels of Sensitivity ( $M = 24.00$ , with a possible range 0 to 76) were recorded, than either Attachment ( $M = 26.60$ , with a possible range 0 to 44) or Independence ( $M = 26.60$ , with a possible range 0 to 48). Sensitivity also showed the greatest spread of responses ( $SD = 14.07$ ). Table 11.1 also shows that while there was little difference in mean scores between older men and older women for each of the three sociotropy/autonomy variables, women showed a wider variation in responses than men. The significance of these gender differences in the sociotropy/autonomy variables is tested under Hypothesis 1.

Table 11.1  
*Sociotropy/Autonomy Scales for Older Adults*

Soc/Aut Scales	Men		Women		Total
	$M (SD)$	Range	$M (SD)$	Range	$M (SD)$
Sensitivity	25.71 (13.95)	0 - 70	22.71 (15.05)	0 - 76	23.99 (14.07)
Attachment	26.29 (7.88)	3 - 43	26.82 (9.62)	2 - 44	26.60 (8.92)
Independence	32.22 (32.22)	12 - 48	29.18 (9.38)	3 - 48	30.48 (8.63)

*Note.* Soc/Aut = Sociotropy/Autonomy.

Sensitivity  $N = 488$ , men  $n = 209$ , women  $n = 279$ . Attachment  $N = 489$ , men  $n = 209$ , women  $n = 280$ .

Independence  $N = 488$ , men  $n = 209$ , women  $n = 279$ .

As can be seen in Table 11.2, older adults' networks consisted of more family members than friends. The means and standard deviations of the numbers of individuals in their networks are shown in Table 11.2. While the total mean network size was 5.87, 20 (4.2%) participants listed no-one to whom they could turn to for support, with 29 of the total sample (6.1%) listing no family members in their network and 134 of the total sample (28.2%) listing no friends in their network.

Participants also reported higher mean scores for Available Family Support than Available Friend Support, as indicated in Table 11.2. However, six (1.3 %) people perceived there to be no support available to them from their family, and 11 (2.3%) perceived there to be no support available to them from friends. Two older adults (0.4% of the total sample) reported no support to be available from either family members or friends. Discrepancies between this figure and those older adults who had no one in their support network were noted.

Table 11.2 also shows that higher mean scores for Received Family Support than for Received Friend Support were reported. However, nine (1.9%) of the sample reported receiving no support from family members, and 15 (3.2%) reported receiving no support from friends. Only one older adult (0.2% of the total sample) reported receiving no support from either family members or friends.

As can be seen Table 11.2, women reported slightly larger support networks than men (particularly more friends in their network), and they also reported receiving slightly more support from friends than men did. However, women and men reported similar levels of support from family members. Men perceived there to be more support available to them from family members than women did, while women perceived more available support from friends. The significance of the gender differences in the social support variables is tested in Hypothesis 2.

Even though they reported that they received less support (from both friends and family members) than the amount they perceived to be available, the older adults expressed moderate levels of satisfaction for the support they received from both family ( $M = 5.40$ ,  $SD = 1.19$ ) and friends ( $M = 5.30$ ,  $SD = 1.05$ ). A mean of 5 indicated that the older adults were “fairly satisfied”, on average, with the support they receive. The means and standard deviations of the negatively skewed scale results are reported here.

Table 11.2

*Means and Standard Deviations of Support Variables Among Older Adults*

Variable	Men	Women	Total
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Network Size (no. of individuals)			
Family	3.58 (2.24)	3.86 (2.15)	3.74 (2.19)
Friends	1.79 (2.03)	2.39 (1.94)	2.13 (2.00)
Available Support			
Family	52.34 (13.96)	51.73 (15.63)	52.04 (14.89)
Friends	40.04 (16.51)	42.75 (16.59)	41.58 (16.59)
Received Support			
Family	18.56 (7.61)	18.74 (7.48)	18.67 (7.53)
Friends	14.18 (6.88)	15.31 (6.96)	14.82 (6.94)

*Note.* *M* and *SD* are reported for continuous untransformed distributions of all variable scales.

Network Family  $N = 475$ , men  $n = 202$ , women  $n = 273$ , Network Friends  $N = 475$ , men  $n = 202$ , women  $n = 27$ , Available Support Family  $N = 475$ , men  $n = 207$ , women  $n = 268$ , Available Support Friends  $N = 474$ , men  $n = 204$ , women  $n = 270$ , Received Support Family  $N = 471$ , men  $n = 200$ , women  $n = 271$ , Received Support Friends  $N = 474$ , men  $n = 201$ , women  $n = 265$ .

Substantially higher levels of Positive Affect ( $M = 22.00$ ,  $SD = 7.14$ , with a possible range of 0 to 40) than Negative Affect ( $M = 4.90$ ,  $SD = 5.69$ , of the untransformed distribution of the scale, with a possible range of 0 to 40) were also recorded.

In the present sample of community-living older adults, the range of both Positive and Negative Affect is narrower than those found in other international studies. While levels of Positive Affect reported among the present older adult sample are somewhat lower than those indicated in studies of community-living older adults in Holland,  $M=32.18$  (Hill, van Boxtel, Ponds, Houx and Jolles, 2005), Northern Ireland  $M=28.03$ , France  $M=27.09$ , and Grenoble  $M=26.24$  (Conville et al., 2005), they are similar to those found among Roman older adults,  $M=19.90$  (Conville), and North American older adults experiencing low stress levels of family care giving,  $M=20.31$  (Pruchno & Meeks, 2004). Present levels of Negative Affect reported were substantially lower than those found in the above studies, in which means ranging from 7.38 (Pruchno & Meeks) through to 18.55 (Hill et al.) were found.

## HYPOTHESES

### Hypothesis 1

**That older women are more likely to have higher levels of Sensitivity and Attachment than older men, while older men are more likely to have higher levels of Independence than older women.**

Correlational analyses indicated weak negative correlations between gender and Sensitivity ( $r = -.106$ ,  $n = 488$ ,  $p < .05$ ), and Autonomy ( $r = -.175$ ,  $n = 488$ ,  $p < .01$ ), with higher levels of Sensitivity and Independence being associated with male gender. To control for the influence of other sociotropy/autonomy variables on these relationships, partial correlations were undertaken. Controlling for Attachment had little effect on the relationship between gender and Sensitivity, although when Independence was partialled out, the relationship lost significance. The relationship between gender and Independence was little effected when Sensitivity was controlled for, but was strengthened by the partialling out of Attachment ( $r = -.21$ ,  $n = 485$ ,  $p < .001$ ).

An independent-samples t-test was conducted to compare the Sensitivity, Attachment, and Independence scores for men and women. Women ( $M=22.71$ ,  $SD = 14.05$ ) had

significantly lower Sensitivity scores than Men [ $M=25.71$ ,  $SD = 13.95$ ;  $t(486)=2.34$ ,  $p=.02$ ]. However, the magnitude of the difference in the scores was small (eta squared = .01) and not particularly meaningful. Significantly higher levels of Independence were indicated for men [ $M=32.22$ ,  $SD = 7.155$ ;  $t(486)=3.91$ ,  $p=.000$ ] than for women ( $M =29.18$ ,  $SD = 9.38$ ). An eta squared of .03 showed this difference between men's and women's Independence scores to be low to moderate in magnitude. However, for Attachment the difference between the scores of women ( $M=26.82$ ,  $SD = 9.62$ ) and men ( $M=26.29$ ,  $SD = 7.88$ ) was not significant.

## Hypothesis 2

**That older women are more likely to (i) have large networks, (ii) perceive there to be more support available to them, and (iii) receive more support than older men.**

As gender and both the Family Network and Friend Network were categorical variables, Chi-square analyses were used to examine the differences in the sizes of Family Networks and Friend Networks between older men and older women. While there was no significant difference in Family Network size between men and women, the analysis revealed a significant difference in size of Friend Network ( $\chi^2 [1, n = 475] = 8.490$ ;  $p = .004$ ). Means and standard deviations are presented in Table 11.2. As can be seen in Table 11.3, women's networks included more friends than those of men. While 43% of women had more than three friends in their network, only 30% of men did so. However, 70% of men had three or less friends in their networks compared to 57% of women.

Table 11.3

### *Differences in Friend Network Size Between Men and Women*

	Network Size 0-3 Friends	Network Size 4-10 Friends
Men	142 70.3%	60 29.7%
Women	155 56.8%	118 43.2%

Independent *t*-tests were undertaken to investigate the differences between Friend and Family Available Support between the older men and women, and between Received Support from Friends and Family. Means and standard deviations have been presented in Table 11.2.

While no significant gender differences were found in these social support variables, there was a trend towards significance indicated between women's greater perceptions of Available Friend Support ( $M = 42.75, SD = 16.59$ ) and men's Available Friend Support levels ( $M = 40.04, SD = 16.51$ ),  $t(472) = -1.76, p = .08$ . However the magnitude of the differences in the means was very small (eta squared = 0.007). With only 0.07 per cent of the variance in Available Friend Support being explained by gender, the difference between older women and older men is not particularly meaningful.

A trend towards significance was also indicated for the gender difference in Received Support from Friends, with older women reporting more support ( $M = 18.74, SD = 7.48$ ) than older men ( $M = 18.56, SD = 7.61$ ),  $t(464) = -1.74, p = .08$ . However the differences in Received Support from Friends was also very small (eta squared = 0.007) and again, not particularly meaningful.

### **Hypothesis 3**

**That levels of Attachment, Sensitivity, and Independence are related to Network size, and levels of Available Support and Received Support.**

Correlational analyses were run to investigate the relationships between Network size, levels of Available Support and Received Support, and Sensitivity, Attachment, and Independence. The analysis indicated that Family Network was not related to any of the Sociotropy/Autonomy variables. There was a negative correlation between Sensitivity and Friend Network ( $r = -.150, p < .01$ ). While the difference in Sensitivity scores between the small Friend Network group ( $M = 25.63, SD = 14.73$ ) and the large Friend Network group ( $M = 21.25, SD = 12.87$ ) was significant ( $t(470) = 3.28, p = .001$ ), the magnitude of the differences in the means was small (eta squared = .02). Attachment was negatively related

to Available Family Support ( $r = -.244, p < .01$ ), and positively related to Available Friend Support ( $r = .158, p < .01$ ), Received Family Support ( $r = .216, p < .01$ ), and Received Friend Support ( $r = .109, p < .05$ ). Autonomy was also negatively correlated to Available Family Support ( $r = -.131, p < .01$ ), and positively correlated to Available Friend Support ( $r = .101, p < .05$ ), Received Family Support ( $r = .101, p < .05$ ), and Received Friend Support ( $r = .105, p < .05$ ).

Partial correlations were used to explore the relationships between each of the sociotropy/autonomy variables and the social support variables, while controlling for the effect of the other two sociotropy/autonomy variables. The relationship between Sensitivity and Friend Network remained unchanged when Attachment and Independence were partialled out of the analyses ( $r = -.150, p = .002$ ). When Independence and Sensitivity were controlled for, the relationships between Attachment and Available Family Support ( $r = -.317, p = .000$ ), Available Friend Support ( $r = .220, p = .000$ ), and Received Family Support ( $r = .217, p = .000$ ) were slightly strengthened. However the correlation with Received Friend Support ( $r = .078, p = .102$ ) lost significance. When Sensitivity and Attachment were partialled out of the analyses, the only relationship between Independence and the support variables to show a trend towards significance was that with Available Family Support ( $r = .066, p = .054$ ).

The grouped network variables were unable to be analysed further. However, in order to examine how much variance in each of the Available and Received Support variables can be explained by Attachment and Independence, a series of four standard multiple regressions was run. The two Hassles variables were entered into each regression in order to control for the effects of the sociotropic and autonomous events. Available Family Support, Available Friend Support, Received Family Support, and Received Friend Support were entered as independent variables, and Attachment and Independence were entered as the respective independent variables for each regression. With the number of respondents ranging from 466 to 489 over the measures, and six independent variables in each set of analyses, the required cases-to-independent variables ratio for multiple regression analyses for testing individual predictors is met (Tabachnick & Fidell, 2001). Analysis of the

residuals indicated that the assumptions of normality, linearity, and homoscedasticity were met. Durbin Watson statistics ranging from 1.905 to 2.047 over the four analyses indicated independence of residuals. With the use of  $p < .001$  criteria for Mahalanobis distance, no outliers among the cases were found. Multiple standard regression was therefore considered to be appropriate forms of analyses for this data. The results are shown in Tables 11.4 to 11.7.

In the first analysis assessing the variance in Available Family Support (see Table 11.4), the variables (as a model) explained a significant 11% of the variance in Available Family Support,  $F(4,466) = 14.869$ ;  $p < .001$ . However investigation of the  $\beta$  values indicated that Attachment was the only significant predictor of Available Family Support ( $p = .000$ ) when Independence was controlled for. For every unit decrease in Attachment, there was a decrease of .054 in Available Family Support ( $B = -.054$ ).

Table 11.4

*Standard Multiple Regression of Sociotropy/Autonomy Variables on Available Family Support*

Soc/Aut Variables	Avail Fam Support (DV)	1	2	3	Adj $R^2$	B	$\beta$	$t$
					.11			
1. Soc Events	.15**	-				1.02	.21	4.07***
2. Aut Events	.07	.54***	-			.07	.04	.83
3. Attachment	-.24***	.29***	.26***	-		-.05	-.30	-5.99***
4. Independence	-.13**	.14**	.20***	.42***		-.01	-.04	-.91

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

Note. Soc/Aut Variables = Sociotropy/Autonomy Variables, Av Fam Support = Available Family Support, Soc Events = Sociotropic Events, Aut Event = Autonomous Events

As a set, Attachment and Independence explained 2.0% of the variance in Available Friend Support (see Table 11.5). This contribution was significant,  $F(4,465) = 3.426$ ;  $p < .01$ .

The  $\beta$  value indicated that Attachment was the only significant unique predictor of Available Friend Support, ( $p = .003$ ). For every unit increase in Attachment there was .287 increase in Available Friend Support ( $B = .287$ ).

Table 11.5

*Standard Multiple Regression of Sociotropy/Autonomy Variables on Available Friend Support*

Soc/Aut Variables	Avail Fri Support (DV)	1	2	3	Adj $R^2$	B	$\beta$	$t$
					.02			
1. Soc Events	.00	-				-2.46	-.05	-.90
2. Aut Events	.02	.54***	-			.03	.00	.04
3. Attachment	.16***	.29***	.26***	-		.29	.15	2.95**
4. Independence	.10*	.14**	.20***	.42***		.08	.04	.84

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

Note. Soc/Aut Variables = Sociotropy/Autonomy Variables, Av Fri Support = Available Friend Support, Soc Events = Sociotropic Events, Aut Event = Autonomous Events

As shown in Table 11.6, Attachment and Independence explained a significant 4.4% of the variance in Received Family Support,  $F(4,426) = 6.358$ ;  $p < .001$ . However, only Attachment made a significant unique contribution to the prediction of Received Family Support,  $p < .001$ . For every unit increase in Attachment, there was an increase of .185 in Received Family Support, ( $B = .185$ ).

As indicated in Table 11.7, Attachment and Independence combined explained 2.2% of the variance in Received Friend Support,  $F(4,457) = 3.567$ ;  $p < .01$ . However neither variable on its own made a significant unique contribution to the prediction of Received Friend Support.

Table 11.6

*Standard Multiple Regression of Sociotropy/Autonomy Variables on Received Family Support*

Soc/Aut Variables	Rec Fam Support (DV)	1	2	3	Adj R <sup>2</sup>	B	β	t
					.04			
1. Soc Events	.02	-				-1.82	-.08	-1.48
2. Aut Events	.08*	.54***	-			.49	.07	1.25
3. Attachment	.22***	.29***	.26***	-		.18	.22	4.23***
4. Independence	.10*	.14**	.20***	.42***		.00	.01	.12

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

Note. Soc/Aut Variables = Sociotropy/Autonomy Variables, Rec Fam Support = Received Family Support, Soc Events = Sociotropic Events, Aut Event = Autonomous Events

Table 11.7

*Standard Multiple Regression of Sociotropy/Autonomy Variables on Received Friend Support*

Soc/Aut Variables	Rec Fri Support (DV)	1	2	3	Adj R <sup>2</sup>	B	β	t
					.02			
1. Soc Events	.13**	-				1.57	.07	1.36
2. Aut Events	.13**	.54***	-			.44	.07	1.23
3. Attachment	.11**	.29***	.26***	-		.03	.04	.83
4. Independence	.10*	.14**	.20***	.42***		.05	.06	1.22

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

Note. Soc/Aut Variables = Sociotropy/Autonomy Variables, Rec Fri Support = Received Friend Support, Soc Events = Sociotropic Events, Aut Event = Autonomous Events

**Hypothesis 4****That Attachment, Sensitivity, and Independence influence affect.**

Correlational analyses were run with the three sociotropy/autonomy factors, Sensitivity, Attachment, Independence, and Positive Affect and Negative Affect. Of the three sociotropy/autonomy factors, only Independence was related to Positive Affect ( $r = .241$ ,  $p < .01$ ). This relationship was unchanged when Sensitivity and Attachment were partialled out of the analysis. A moderate positive correlation was found between Sensitivity and

Negative Affect ( $r = .467, p < .01$ ) which was slightly weakened when Attachment and Independence were controlled for ( $r = .359, p = .000$ ). A moderate positive relationship between Attachment and Negative Affect ( $r = .328, p < .01$ ) lost significance when Sensitivity and Independence were partialled out of the analysis. A weak positive correlation between Independence and Negative Affect ( $r = .154, p < .01$ ) also lost significance when Sensitivity and Attachment were controlled for.

In order to ascertain the amount of unique variance that each of the sociotropy/autonomy variables contributed to Positive Affect and Negative Affect, two sets of standard multiple regression analyses were run. These regressions also included the two hassles variables and the social support variables in order to control for their effects on Positive Affect and Negative Affect, and also to test their contribution to Positive Affect and Negative Affect, which is outlined in Hypothesis 5.

With the number of participants ranging from 466 to 490 over the measures and 13 independent variables in the first regression assessing the contribution to Positive Affect, and between 471 and 492 respondents over the measures and 13 independent variables in the second regression assessing contribution to Negative Affect, the cases-to-IV ratio is meets the requirements for multiple regression analyses testing individual predictors (Tabachnick & Fidell, 2001). Analysis of the residuals indicated that the assumptions of normality, linearity, and homoscedasticity were met. Durbin Watson statistics of 2.209 for the Positive Affect analysis, and 2.037 for the Negative Affect analysis indicated independence of residuals. With the use of  $p < .001$  criteria for Mahalanobis distance four outliers were found among the cases for the Positive Affect regression, and three outliers were found for the Negative Affect regression. However, such few outliers were considered to be acceptable for the present sample size. Multiple standard regression was therefore considered to be appropriate forms of analyses for this data.

In the first standard regression, Positive Affect was entered as the dependent variable. The two Hassles variables (in order to control for the effects of sociotropic and autonomous events), age (which was correlated with Positive Affect,  $r = -.215, p < .01$ ),

education (which was also correlated with Positive Affect,  $r = .119, p < .01$ ), the family and friend sources of each of the Network variables, the Available Support variables, and Received Support variables, and the three sociotropy/autonomy variables were entered as the independent variables. The variables as a set were moderately correlated with Positive Affect ( $r = .53$ ) and made a significant contribution of 26.4% of the variance in Positive Affect,  $F(13,437) = 13.44, p = .000$ . An examination of the  $\beta$  values, as shown in Table 11.8, indicated that both Independence and Sensitivity (in that order) were the only significant sociotropy/autonomy predictors (both at the  $p < .001$  level) of Positive Affect in this regression. For every unit increase in Independence, there is a .214 increase in Positive Affect, while for every unit increase in Sensitivity there was a .124 decrease in Positive Affect.

In the second standard regression, Negative Affect was entered as the dependent variable. The two Hassles variables (in order to control for the effects of sociotropic and autonomous events), gender (which was correlated with Negative Affect,  $r = .09, p < .05$ ), and marital status (which was also correlated with Negative Affect,  $r = -.10, p < .05$ ) were included as independent variables. As in the previous regression, the family and friend sources of each of the Network variables, the Available Support variables, and the Received Support variables, were also entered as independent variables. Attachment, Independence, and Sensitivity were also entered as independent variables. The model of the variables as a whole had a moderate to strong relationship with Negative Affect ( $r = .61$ ) and explained 36% of the variance in Negative Affect. This contribution was significant,  $F(13,437) = 20.32, p = .001$ . As can be seen in Table 11.9, the only significant personality predictor of Negative Affect was Sensitivity ( $p < .001$ ). For every unit increase in Sensitivity, there is a .008 increase in Negative Affect.

### Hypothesis 5

**That (i) structure of Network, (ii) amount of Available Support, and (iii) amount of Received Support influence affect.**

Correlational analyses were used in order to investigate the relationships between the social support variables and Positive Affect and Negative Affect. Low positive relationships were found between Positive Affect and Family Network ( $r = .12, p < .01$ ), Friend Network ( $r = .17, p < .01$ ), Available Friend Support ( $r = .32, p < .01$ ), Received Family Support ( $r = .29, p < .01$ ), and Received Friend Support ( $r = .37, p < .01$ ).

However a low negative relationship was found between Positive Affect and Available Family Support ( $r = -.25, p < .01$ ). None of the support variables showed any significant correlations with Negative Affect.

In order to compare the Positive Affect scores for large and small groups of the Network variables, independent samples t-tests were run with the high and low Network groups as the independent variables, and Positive Affect as the dependent variable in each analysis. A significant difference in Positive Affect scores was found between the small [ $M = 21.00, SD = 7.42$ ], and large Family Network groups [ $M = 23.17, SD = 6.47; t(471) = -2.69, p = .007$ ]. The magnitude of the differences in the means was small (eta squared =  $-.01$ ), and offered little explanation to the variance in Positive Affect. A significant difference was also found between Positive Affect scores for the small ( $M = 21.08, SD = 7.17$ ), and large Friend Network groups [ $M = 25.53, SD = 6.82; t(471) = -3.66, p = .000$ ]. The magnitude of the difference in the means was again small (eta squared =  $-.02$ ). Only 2 percent of the variance in Positive Affect could be explained by the size of Friend Network groups.

In order to explore the unique contribution of each of the social support variables to Positive Affect more fully, a standard multiple regression was run with Positive Affect being entered as the dependent variable. The independent variables consisted of the two hassles variables (in order to control for the effects of sociotropic and autonomous events),

Table 11.8  
*Standard Multiple Regression of Support Variables on Positive Affect*

Variables	PA (DV)	1	2	3	4	5	6	7	8	9	10	11	12	Adj R <sup>2</sup>	B	$\beta$	t
														.26			
<b>Event</b>																	
1 Soc Event	-.02	-													-.85	-.04	-.78
2 Aut Event	.08*	.52***	-												.09	.08	1.61
<b>Demograph</b>																	
3 Age	-.21***	-.00	-.04	-											-.21	-.18	-4.37***
4 Educ	.12**	-.07	.04	-.00	-										.26	.05	1.24
<b>Social Sup</b>																	
5 Net Fam	.12**	-.04	.07	-.00	.01	-									.81	.05	1.27
6 Net Fri	.17***	.00	-.01	-.06	.16***	.09*	-								.10	.01	.15
7 Avail Fam	-.25***	.15**	.06	.02	.05	-.24***	-.10*	-							-.24	-.05	-.81
8 Avail Fri	.32***	.00	.02	-.10*	.06	.13**	.35***	-.59***	-						.02	.04	.54
9 Rec Fam	.29***	.02	.09*	-.04	-.05	.19***	.09*	-.56***	.35***	-					.07	.07	1.13
10 Rec Fri	.37***	.13**	.13**	-.05	.13**	.03	.34***	-.29***	.62***	.55***	-				.26	.25	3.73***
<b>Soc/Aut</b>																	
11 Sens	-.08*	.41***	.40***	.02	-.14**	-.05	-.15**	-.00	-.03	.06	.04	-			-.12	-.24	-4.02***
12 Attach	.08*	.29***	.25***	-.02	-.18***	.06	-.03	-.24***	.16***	.22***	.11**	.65***	-		.05	.06	1.04
13 Ind	.24***	.14**	.21***	-.02	.02	.02	-.03	-.13**	.10*	.10*	.10*	.42***	.42***		.21	.26	5.57***

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$

Note: NA = Negative Affect, Soc Event = Sociotropic Event, Aut Event = Autonomous Event, Demograph = Demographics, Marital = Marital Status, Social Sup = Social Support, Net Fam = Family Network, Net Fri = Friend Network, Avail Fam = Available Family Support, Avail Fri = Available Friend Support, Rec Fam = Received Family Support, Rec Fri = Received Friend Support, Soc/Aut = Sociotropy / Autonomy, Sens = Sensitivity, Attach = Attachment, Ind = Independence

Table 11.9  
*Standard Multiple Regression of Support Variables on Negative Affect*

Variables	NA (DV)	1	2	3	4	5	6	7	8	9	10	11	12	Adj R <sup>2</sup>	B	$\beta$	t
														.36			
Event																	
1 Soc Event	.49***	-													.34	.27	5.68***
2 Aut Event	.45***	.52***	-												.01	.18	3.84***
Demograph																	
3 Gender	.09*	.04	-.01	-											.11	.13	3.29**
4 Marital	-.10*	.04	-.11**	.21***	-										-.04	-.10	-2.52*
Social Sup																	
5 Net Fam	-.04	-.04	.07	.05	-.12**	-									-.04	-.04	-1.08
6 Net Fri	-.07	.00	-.01	.14**	.15***	.09*	-								-.02	-.03	-.67
7 Avail Fam	.06	.15**	.06	.01	.15**	-.24***	-.10*	-							-.00	-.00	-.08
8 Avail Fri	-.03	.00	.02	.08*	-.00	.13**	.35***	-.59***	-						-.00	-.06	-.95
9 Rec Fam	.04	.02	.09*	.01	-.05	.19***	.09*	-.56***	.35***	-					.00	-.00	-.08
10 Rec Fri	.08*	.13**	.13**	.08*	.13**	.03	.34***	-.29***	.62***	.55***	-				.00	.06	.99
Soc/Aut																	
11 Sens	.47***	.41***	.40***	-.11*	-.08*	-.05	-.15**	.00	-.03	.06	.04	-			.01	.28	4.87***
12 Attach	.33***	.29***	.25***	.03	-.15***	.06	-.03	-.24***	.16***	.22***	.11**	.65***	-		.00	.02	.37
13 Ind	.15***	.14**	.21***	-.17***	-.05	.02	-.03	-.13**	.10*	.10*	.10*	.42***	.42***		-.00	-.03	-.69

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .0$

Note: NA = Negative Affect, Soc Event = Sociotropic Event, Aut Event = Autonomous Event, Demograph = Demographics, Marital = Marital Status, Social Sup = Social Support, Net Fam = Family Network, Net Fri = Friend Network, Avail Fam = Available Family Support, Avail Fri = Available Friend Support, Rec Fam = Received Family Support, Rec Fri = Received Friend Support, Soc/Aut = Sociotropy / Autonomy, Sens = Sensitivity, Attach = Attachment, Ind = Independence

age (which was correlated with Positive Affect,  $r = -.215, p < .01$ ), education (which was also correlated with Positive Affect,  $r = .119, p < .01$ ), the Family and Friend sources of each of the Network variables, the Available Support variables, and the Received Support variables, and the three sociotropy/autonomy variables.

As noted under Hypothesis 4, the regression analyses assessing the contribution of the social support variables, and the sociotropy/autonomy variables to Positive Affect and Negative Affect were run together in order to control for the effect of both sets of variables on affect. The data was suitable for standard multiple regression analysis and the necessary assumptions were met. These have been described more fully under Hypothesis 4.

The variables as a set were moderately correlated with Positive Affect ( $r = .53$ ) and made a significant contribution of 26.4% of the variance in Positive Affect,  $F(13,437) = 13.44, p = .000$ ). However, as can be seen in Table 11.8, Received Friend Support was the only support variable to significantly contribute to the variance in Positive Affect ( $p = .000$ ). For every unit increase in Received Friend Support, there was a .256 increase in Positive Affect.

In the second standard regression, Negative Affect was entered as the dependent variable. The two hassles variables (in order to control for the effects of sociotropic and autonomous events), gender (which was correlated with Negative Affect,  $r = .09, p < .05$ ), marital status (which was also correlated with Negative Affect,  $r = -.10, p < .05$ ), the family and friend sources of each of the network variables, the available support variables, and the received support variables, were entered as the independent variables.

As in the previous regression, Attachment, Sensitivity, and Independence were also entered as independent variables. The model of the variables as a whole had a moderate to strong relationship with Negative Affect ( $R = .61$ ) and explained a significant 36% of the variance in Negative Affect,  $F(13,437) = 20.32, p = .001$ ). However, Table 11.9 shows that none of the social support variables made a significant contribution to Negative Affect.

## Hypothesis 6

### **That the relationship between social support and affect is moderated by the sociotropy/autonomy factors**

Hierarchical multiple regressions were utilised to examine the moderating influence of the sociotropy/autonomy factors on the relationship between the social support variables and affect. As indicated in Hypothesis 5, the only social support variable significantly predictive of Positive Affect was Received Friend Support, and a series of three analyses tested the influence of each of the three sociotropy/autonomy variables on the relationship between Received Friend Support and Positive Affect. Hypothesis 5 indicated that none of the social support variables were significantly predictive of Negative Affect. Therefore no analysis was run with Negative Affect as the dependent variable.

In the first step of each of the three analyses examining the influence of the sociotropy/autonomy factors on the relationship between the social support variables and Positive Affect, Positive Affect was entered as the dependent variable. The two Hassles variables were entered as independent variables first in order to control for their effects in the analysis. Age (the only demographic variable predictive of Positive Affect in Hypotheses 4 and 5, as indicated in Table 11.8) was also entered in order to control for its effects on Positive Affect. Then Received Friend Support was entered, followed by each of the sociotropy/autonomy factors over the three sets of analyses. While they can be entered in any order, it has been noted that the main effects need to be entered before the interaction terms (J. Cohen, Cohen, West & Aiken, 2003; Holmbeck, 1997).

In the second step of each analysis, the interaction terms were entered. These terms were represented by the product of each of the sociotropy/autonomy moderators and the predictor Received Friend Support. Prior to the interaction terms being computed, the predictors and moderating variables were centered, as suggested by Aiken and West (1991), and Holmbeck (1997) in order to eliminate problematic multicollinearity.

With the number of respondents ranging from 465 to 490 across the measures and six independent variables in each regression, the cases-to-independent variables ratio meets the

requirements for multiple regression analyses (Tabachnick & Fidell, 2001).

Multicollinearity was not present between the variables. Analysis of the residuals indicated that the assumptions of normality, linearity, and homoscedasticity were met. Durbin Watson statistics ranging from 2.115 to 2.163 indicated independence of residuals. With the use of  $p < .001$  criteria for Mahalanobis distance, six outliers were found in the Sensitivity analysis, seven outliers in the Attachment analysis, and five outliers in the Independence analysis. Considering the size of the present sample, these outliers would not influence the analysis unduly. As such, multiple hierarchical regression was considered to be an appropriate form of analysis for this data.

The analysis assessing Sensitivity as a moderator indicated that the variables as a set were significant at Step 2,  $F(6,454) = 18.571, p = 000$ , and explained 19% ( $Adj R^2 = .186$ ) of the total variance in Positive Affect. However, the interaction variable made no unique contribution to the variance in Positive Affect, and the *F Change* was not significant. The analysis investigating Attachment as a moderator was also significant at Step 2,  $F(6,455) = 17.910, p = 000$ , explaining 18% of the variance in Positive Affect ( $Adj R^2 = .181$ ). However, the interaction variable again made no unique contribution to Positive Affect, and the *F Change* was again not significant. For the analysis testing Independence as a moderator, at Step 2 the model was also significant,  $F(6,454) = 22.769, p = 000$ , explaining 22% of the total variance ( $Adj R^2 = .221$ ). But the *F Change* was again not significant. In each set of analyses the significant main effects of Independence and Sensitivity on Positive Affect, and of Sensitivity on Negative Affect found in Hypothesis 4 and of Received Friend Support on Positive Affect found in Hypothesis 5 remained. However there were no significant interactions between the sociotropy/autonomy variables and the relationship between Received Friend Support and Positive Affect identified in the analyses.

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## CHAPTER 12

### STAGE 2 - SOCIOTROPY/AUTONOMY, SOCIAL SUPPORT, AND AFFECT

### DISCUSSION

#### HYPOTHESES

##### Hypothesis 1

**That older women are more likely to have higher levels of Sensitivity and Attachment than older men, while older men are more likely to have higher levels of Independence than older women.**

In the present study, Attachment was not related to gender, but men reported significantly higher levels of Sensitivity and Independence than women. However, the differences between the scores of men and women in both personality modes were small in effect size.

These findings only partially support the hypothesis, in that men, as expected, reported higher levels of Independence than women did. It must be noted that the Independence component was the only original subscale of the SAS-Rev to remain stable with this older adult sample. Therefore the current finding supports the higher male ratings on the Independence and Individual Achievement subscales of the SAS-Rev previously found by D. A. Clark and Beck (1991) and Sato and McCann (2000). The positive relationship between Independence and male gender was not influenced by Sensitivity, but was weakened by Attachment (which as noted above was not related to gender). This finding attests to the robust nature of the relationship between Independence and male gender.

There is empirical evidence for the expectation that women would have higher ratings in the sociotropy components than men (D. A. Clark & Beck, 1991; D. A. Clark et al., 1995; Sato & McCann, 1997; Sato & McCann, 2000). While it might be expected that women would have higher levels of Sensitivity than men, due to socialization, it was not found to

be the case with the present older adult sample. The lack of support for this part of the hypothesis may be due to the finding that most of the relationship between gender and Sensitivity is explained by Independence, which was found to be higher in men.

While women did not have higher levels of Sensitivity or Attachment, this could be due to the androgynous nature found in older adults' behaviours and beliefs that occurs due to changing social and gender roles. Knight (1996a, 1996b) suggests that older adults have had a long period of adulthood in which to observe and learn the other gender's styles of behaviour and how they see themselves in the world. With the age related release from raising a family and occupational expectations, older adults are freer to explore and take on the other gender's emotional characteristics. He notes that this personality reorganization is particularly found among older women. Thus gender differences found between the sociotropy/autonomy styles could be expected to weaken in old age. Furthermore, Knight (1996b) has suggested that higher levels of androgyny are more likely to be reported by older adults when self-concept measures (such as the SAS-Rev) are used rather than objective personality measures.

## **Hypothesis 2**

**That women are more likely to (i) have large networks, (ii) perceive there is more support available to them, and (iii) receive more support than men.**

Women's networks included more friends than those of men. While 43% of women had more than three friends in their network, only 30% of men did so. Research has indicated that in younger age groups, women's networks consist of more family members than friends while men's networks include more friends (Leavy, 1983). However Gurung, et al. (2003) have noted that men's friendships and nonfamily activities decline with age, while women's friendships outside of the home do not change.

The hypothesis was not fully supported though, as there were no significant differences found between men and women in the number of family members in their networks, or the amount of Available Support from either friends or family members. These findings

support those found in Hypothesis 1, which found no gender differences in Attachment in older adults. They suggest that both genders feel connected with the family members and friends in their lives, and it may be through that feeling of connection that support is perceived to be available.

While research has indicated that women receive more support over the life course (Gurung et al., 2003), no differences were found between the present sample of older men or women in the amount of Received Support from either friends or family members. Both men and women equally received less support than they perceived available to them. This may be due to a cohort effect. The mean age of the sample was 75 years old. As such many of the participants grew up during the Great Depression and World War II, times of great hardship when tangible support resources were scarce. As such they developed a resilient attitude of 'making do' with what they had and getting on with life without some resources, rather than asking for assistance or support, which was often not available (Atkinson, 2005; Bassett, Sinclair, & Stenson, 1998; Dalley & McLean, 2005; King, 2003). Furthermore, there was a sense of shame involved in asking for material or financial aid, in that it was necessary for the recipient to show that they were 'deserving' of that aid (King, 2003). Indeed, during the pilot stage of testing the questionnaire, it was noticeable that older adults were more likely to respond that they would not ask others for some forms of assistance, particularly that involving financial or material aid.

### **Hypothesis 3**

**That levels of Attachment, Sensitivity, and Independence are related to Network size, and levels of Available Support and Received Support.**

The present findings indicated that while Family Network size was unrelated to any of the sociotropy/autonomy variables, a negative relationship was found between Sensitivity and Friend Network size. Older adults who reported higher levels of Sensitivity had fewer friends in their network. This can be explained by the high demands that maintaining friendships would have on individuals who are overly conscious of a need to be agreeable

and 'fit in' with other people. It must also be noted that the relationship was largely influenced by Independence.

Older adults with higher levels of Independence reported less Available Family Support, but more Available Friend Support. They also claimed to have higher levels of both Received Family Support and Received Friend Support. However, these relationships were largely due to the influence of Sensitivity and Attachment.

Older adults with higher levels of Attachment reported less Available Family support, but more Available Friend support. However, they also reported higher levels of Received Family Support and Received Friend Support. The positive relationship found between Attachment and Received Friend Support was largely due to the influence of Sensitivity and Independence.

Of the three sociotropy/autonomy variables, Attachment was found to be the only significant unique predictor of Available Family Support, Available Friend Support, and Received Family Support. While Available Family Support decreased as levels of Attachment increased, a positive relationship was indicated between Attachment and both Available Friend Support and Received Family Support.

This discrepancy between the two different forms of support from friends and family may be due to the phenomena that while older adults' friends provide less assistance than family members, they do provide necessary companionship (Kaniasty & Norris, 1993). This sense of companionship and its resulting satisfaction with those relationships may influence older adults' perceptions of availability of support from their friends. Also, as Rook (1987) notes, friends and family members provide different forms of support. Older adults are more able to reciprocate the emotional and esteem support provided by friends (which may be more important than instrumental support to a sense of well-being for people high in Attachment). However, while older adults receive more instrumental support from family members they are less able to reciprocate in those support transactions. While it has been suggested that within families, a sense of reciprocity is built up over time (Depner &

Ingersoll-Dayton, 1988; Heller, 1993), the inability of this cohort of New Zealand older adults to reciprocate the support that is given to them by their family members could influence their willingness to expect support from them.

Furthermore, older adults of the present cohort would be keenly aware that it is through their connections with others outside the family that they are able to make appeals for assistance when they perceive family members to be unable or unwilling to help them. Their experiences of childhood through the Great Depression, when the main sources of assistance for impoverished families were from friends or informal contacts outside of the home (Barber, 1989), emphasizes the link between Attachment and Available Friend Support in the current sample of older adults.

#### **Hypothesis 4**

##### **That Attachment, Sensitivity, and Independence influence affect.**

This hypothesis was partially supported by the present findings. The only sociotropy/autonomy variables to be uniquely related to Positive Affect was Independence. Older adults with higher levels of Independence reported higher levels of Positive Affect. This is due to the esteem bolstering nature of independent goal achievement, which is at the core the Independence factor. Undepressed autonomous individuals have been found to have high levels of self-esteem and self-confidence (Allen et al., 1996).

At an age when some skills are deteriorating, and people become more dependent on others, recognition of one's ability to be able to undertake tasks and achieve goals independently becomes important to a sense of well-being. In old age, independent goal achievement would also become more important to women's well-being, as they experience changes in their roles from mother and carer to being more self-determined in their activities, and eventually to being reliant and dependent on others.

Furthermore, old age is a time of life when contact with other network members becomes less frequent (Lansford et al., 1998) due to both the disability and death of other network members. Also, less important relationships are discarded due to selective optimization

within the social world (Carstensen, 1992). As such a lessened need to be with other people and to take on their concerns becomes adaptive.

The lack of relationship between Independence and Negative Affect supports previous research and literature. The Individualistic Achievement component of autonomy has consistently been shown in the literature to be unrelated to mental ill-being (Burke & Haslam, 2001; D. A. Clark & Oates, 1995; Mazure et al., 2000; Moore & Blackburn, 1994; Sato & McCann, 1997). D. A. Clark and Oates (1995) have suggested that the Independence component may provide a buffer against Negative Affect. However, in the present study, when Sensitivity and Attachment were controlled for, the relationship between Independence and Negative Affect disappeared.

As Sensitivity increased, significantly higher levels of Negative Affect were recorded. This finding would be expected, as older adults who are overly aware of, and overly concerned with, how others perceive them, could be likely to experience related levels of Negative Affect.

While Attachment was also shown to be related to Negative Affect, this relationship was largely due to the effects of the other two sociotropy/autonomy variables. When Sensitivity and Independence were controlled for, the relationship between Attachment and Negative Affect disappeared.

Independence and Sensitivity were the only unique predictors of Positive Affect, with Independence having the strongest explanatory power. These findings indicate that among older adults, higher levels of Independence are predictive of well-being, while higher levels of Sensitivity are predictive of mental ill-being. As levels of Independence increased, so did Positive Affect. The present finding suggests that Independence is involved in Sato and McCann's (1998) concept of reflective autonomy which represents a sense of freedom and choice about one's own actions without a need to defend oneself from the influence of others. Mazure et al. (2002) have also claimed that for older adults, autonomy is more

concerned with independence of action than with a need for control. As such, interactions with the environment are driven by positive emotion.

However, as Sensitivity levels increased, reported Positive Affect decreased. Sensitivity was also the only predictor of Negative Affect. As levels of Sensitivity increased, reported Negative Affect levels did also. A positive relationship between Interpersonal Sensitivity and mental ill-health has been indicated in the literature (Boyce, Parker, Barnett, Cooney, & Smith, 1991; Sato & McCann, 1997) with suggestions of a relationship between Interpersonal Sensitivity and depression, which is characterized by both low Positive Affect and high Negative Affect.

### **Hypothesis 5**

**That (i) structure of Network, (ii) amount of Available Support, and (iii) amount of Received Support influences affect.**

As Family Network size and Friend Network size increased, reported levels of Positive Affect also increased. Higher scores in the Available Friend Support, Received Family Support, and Received Friend Support measures were also related to higher levels of Positive Affect. However, with increased levels of Available Family Support, Positive Affect decreased. Received Friend Support was the only support variable to be a significant predictor of Positive Affect, with increasing levels of Received Friend Support resulting in increased levels of Positive Affect.

None of the forms or sources of support were related to Negative Affect, and none of them were able to make a significant contribution to the prediction of Negative Affect. Thus the hypothesis was again partially supported.

The lack of predictive power for Positive Affect by either Available Family Support or Received Family Support may be explained by previous research that has indicated that Positive Affect and Negative Affect are related to different types of events. Positive Affect has been associated with activity and pleasurable social interactions (McIntyre et al., 1990) and for older adults such interactions are more likely to be found within friendship

relationships, which offer companionship and emotional support, rather than through family relationships, which offer more tangible support resources (Kaniasty & Norris, 1993).

The lack of any relationship between social support and Negative Affect may be explained by the finding of McIntyre et al. (1990) which showed that Negative Affect does not show a consistent association with social interactions. Negative Affect has been found to be related to hassles (L. A. Clark & Watson, 1988) and stressful events (Watson & Clark, 1984). While the receipt of support might imply that the receiver is experiencing some sort of hassle or difficulty, hassles were controlled for in the regression.

### **Hypothesis 6**

**That the relationship between the social support variables and affect is moderated by the sociotropy/autonomy components.**

The main effect of the social support variable Received Friend Support on the prediction of Positive Affect, which was found in Hypothesis 5, was supported, as were the main effects of Sensitivity and Independence on Positive Affect, which were found in Hypothesis 4. However, none of the sociotropy/autonomy variables Sensitivity, Attachment, or Independence moderated the relationship between Received Friend Support and Positive Affect.

The lack of any interaction effects may be due to the nature of the Available Support and Received Support variables. It has been claimed that buffering effects are less likely to be found when global measures of social support are used rather than functional measures (S. Cohen & Wills, 1985). While the SSB allows for discriminating between five different types of support, namely emotional, socializing, practical assistance, financial assistance, and advice/guidance, it was beyond the scope of the present study to analyze the Available and Received Support data in such detail. Therefore the two forms of the SSB were analyzed as global constructs.

## SUMMARY OF THE FINDINGS

The present findings indicated that among older adults, the two sociotropy components Sensitivity and Attachment, and the autonomy component Independence were related to each other. It was not until each was controlled in either partial correlational analyses or regression analyses that the unique influence of each individual component on social support or affect could be determined. It must be noted, though, that the autonomous components Independence and Solitude, and the single Sociotropy component were independent among the younger student sample. Sociotropy and autonomy were originally proposed to be orthogonal factors (A. T. Beck, 1983; A. T. Beck et al., 1983, cited in D. A. Clark et al., 1995) and their independence has been supported by research using the SAS-Rev (D. A. Clark & Beck, 1991; D. A. Clark & Oates, 1995; D. A. Clark et al., 1995; Sato & McCann, 1997, 1998, 2000). However, studies using the PSI (Robins & Luten, 1991) have found the constructs to be related, and arguments against their independence have been presented (Coyne & Whiffen, 1995). The present results support such arguments, at least for older adults.

While Attachment was unrelated to either Positive Affect or Negative Affect, Sensitivity was predictive of low Positive Affect and high Negative Affect (a constellation of affect that characterizes depression). As such, Sensitivity can be viewed as a vulnerability component of the sociotropy construct. However, Independence significantly predicted high Positive Affect and was unrelated to Negative Affect. Thus the only autonomous component in the present sociotropy/autonomy structure can be seen as a protective factor against the development of depression or anxiety.

Although significant relationships were found between the sociotropy/autonomy variables and the different forms and sources of support, Attachment was the only personality style which predicted any of the social support variables. Higher levels of Attachment were indicative of lower levels of Available Family Support, but higher levels of both Received Friend Support and Available Friend Support. These findings suggest that older adults with high levels of Attachment find more support through their friendships, which are

characterized by socializing, emotional, and esteem support, than they do from family members who offer a more instrumental, tangible form of support. Investigating the functions of support in more depth could tease out these relationships more clearly. All of the support variables showed significant relationships with Positive Affect, but Received Friend Support was the only form of support that was able to significantly predict affect. Increases in levels of Received Friend Support resulted in increased Positive Affect.

This finding can be explained by the empirically established relationship between Positive Affect and pleasurable social interactions (McIntyre, Watson, & Cunningham, 1990) which older adults experience and enjoy more with friends than family members (Kaniasty & Norris, 1993). While the SSB-Rev actually contains items aimed at assessing Socializing Support, investigating each function of support in depth was beyond the scope of the present study. It is urged that further research be undertaken which investigates the relationships between the specific functions of support and affect, in order to clarify the present findings. No support variables were predictive of Negative Affect.

Independence, Received Friend Support, and Sensitivity (in that order) each made a unique contribution to the prediction of Positive Affect of older adults. However the present study does not offer any evidence of an interaction effect of Sensitivity, Attachment, or Independence on the relationship between any of the forms of social support from either family or friend sources and Positive Affect. This may be due to the global nature of the way in which support was measured. It could be proposed that Sensitivity, Attachment, and Independence may be differentially related to the different functions of support, rather than to overall Received Support or Available Support from either family or friends. While the depth of such exploration is beyond the scope of the present study, it would be well worth examining in order to form a clearer picture of how the sociotropy/autonomy components might influence the use and perception of social support by older adults.

The gender differences indicated in the literature for both the sociotropy and autonomy components of the SAS-Rev among younger age groups (D. A. Clark & Beck, 1991;

D. A. Clark et al., 1995; Sato & McCann, 1997, 2000) have been partially supported in the present study. Older men, like men in younger age groups, rated higher in Independence than women. However, the expected higher scores for older women in Sensitivity and Attachment were not found. This may be due to the higher rates of androgyny found in older adults, and particularly older women, with the acquisition of role competencies and interests generally associated with the opposite gender (Knight, 1996b). This has been discussed in more depth under the discussion of Hypothesis 1. Knight also notes that another aspect of maturing in late life involves the development of greater emotional complexity characterised by older adults gaining a better understanding and control of their emotional reactions. This emotional complexity could blur any gender differences between Sensitivity and Attachment.

The only form of social support that showed any significant gender differences among the older adults was the size of Friend Networks. Women had significantly more friends in their networks than men. The greater maintenance of their friend networks by older women, than by older men, supports previous research (Gurung et al., 2003). However, the gender differences in received or available social support found in previous research (Barnett & Gotlib, 1990; Coventry et al., 2004; Fuhrer & Stansfeld, 2002; House et al., 1988; Leavy, 1983; Shumaker & Hill, 1991) have not been supported in the present study. No differences between men and women in the present older sample were found for Available Support from either friends or family members, or Received Support from either source. These results may reflect the similar levels of Attachment found between older men and women. Due to a lack of gender difference in their feelings of connectedness with people in their networks, older men and women may perceive equal amounts of support to be available to them. Also, because both older men and older women are seen to need assistance and support due to their age, there may be little difference in the amount of support they receive.

The lack of support in the present study for some of the expected findings may be due to the way in which different measures were used. Shortened forms of the SAS-Rev, measuring the sociotropy/autonomy variables, the SSB measuring both Available Support

and Received Support, and the SRLE measuring daily Hassles were used in order to make the whole questionnaire manageable for older adults to undertake. While all the shortened measures showed acceptable reliability alphas in this study, some of the variability may have been lost due to their use in this way. Although the method used to shorten the scales was sound (see chapter 7 for a description), the shortened versions have not been used previously in other research, and as such need to be tested and validated in further research.

### **LIMITATIONS OF THE PRESENT STUDY**

The SSB was designed by Vaux et al. (1987) as a measure of five distinct functional modes of supportive behaviour (namely emotional support, socializing, practical assistance, financial assistance, and advice/guidance) which are perceived to be available from, and received from, both family members and friends. While it was originally planned to measure each of the functions of support for both family and friend sources, such analyses were found to be beyond the scope of the present study. The SSB was therefore used as a global measure of Available Support, and Received Support from both Family and Friend sources. Use of this measure allowed comparison between Available Support and Received Support, as both measures as used in the present study are based on the same form of the SSB. However, it is acknowledged that investigating the relationships at the functional level would have given a considerably finer grain of analysis, and may well have picked up and explained some of the discrepancies and lack of support of the hypotheses found in the present findings. It would also be reasonable to expect that people with different levels of Sensitivity, Attachment, and Independence may use and perceive the support functions in different ways.

Also, as mentioned previously, the use of a global support measure may have influenced the lack of support for interactions between the support received from friends and the sociotropy/autonomy variables. S. Cohen and Wills (1985) have suggested that buffering effects are less likely to be found when global measures of social support are used rather than functional measures.

The lack of support for the hypothesized relationships between Family Network size and both gender and the sociotropy/autonomy variables, and both network variables' inability to predict affect may be explained by the use of dichotomized measures to assess network size. Use of this form of measurement would have reduced the variance in analyses assessing their relationships with other variables. As such, those relationships may have been weakened. However, because the measure assessing Friend Network size was positively skewed, and was unable to be normalized through transformation, it was necessary to dichotomize it into small and large network size groups. In order to be able to compare Friend Network size with Family Network size (which indicated a symmetrical distribution), the Family Network variable was also dichotomized into groups.

The study provides data from a self-selected sample. While the sample was randomly selected from the current electoral roll, it could be expected that the older adults who are content with their level of support might be more likely to respond than those who are dissatisfied with it. Some evidence for this assumption is provided with the mean level of satisfaction reported with the received support. Furthermore, the present findings may be more representative of older adults who have retained the cognitive and physical abilities required to fill in the questionnaire. While the sample is representative of the age distribution of older adults living in New Zealand, health status was not measured, and one's physical and cognitive functioning would also have implications regarding use and perception of social support from both family members and friends. The study suggested that the support received from friends was the only predictor of Positive Affect. However, the instrumental support received from family members may become more uniquely predictive of Positive Affect when older adults' ability to meet with friends is reduced due to failing health, and they become more reliant on family members for their daily needs.

The sample was selected from the New Zealand general electoral roll only, not the Maori electoral roll, and consisted predominantly of older adults who identified themselves as New Zealand Europeans or Pakeha (94.7%). As such, the findings of the study cannot be generalized to older adults of other ethnic groups. It has been suggested that different ethnic groups experience social support in different ways across all ages (Vaux, 1985), and

differences in familial support between ethnic groups have been found in older adults in New Zealand (Wilson & Everts, 1995). While it was hoped that ethnicity could be investigated in the present study, the responses across other ethnic groups were too few to provide any meaningful results. It is acknowledged that an impersonal postal survey is not the optimal methodology to use for non-European ethnic groups, however the limitations on resources in the present study did not allow for a more personal interview type of methodology. It is also recognized that for many older adults for whom English is not their first language, response rates would be reduced when methodologies which rely on the written English word are used. Feedback from potential survey respondents supported the presence of language difficulties experienced by some older adults in attempting to complete the questionnaire.

Another limitation caused by the use of a postal survey is that it is unable to determine how respondents interpreted the questions, and the full implications of their responses. While attempts were made to adapt the wording in the different measures to be suitable for older adults, Knight (1996b) has noted that interpretations of questions may be placed within a cultural context that is determined by cohort effects. While it was beyond the scope of the present study, a more qualitative investigation into what the questionnaire items mean to the older adults as respondents would be useful.

Even though Knight (1996a, 1996b) has suggested the presence of greater complexity of thinking among older adults, it was noted in a pilot study investigating the suitability of the questionnaire design, that several of the respondents could not answer some questions due to an inability to imagine the presence of a particular event. This form of concrete thinking was sometimes exhibited in response to such Available Support items as "Loan me money for an indefinite period", for which the response would be that the respondent would not ask for such forms of assistance, and was unable to consider if someone would provide such help if it was needed, as an abstract concept. However, it has been noted that the formal stage of cognitive development may be confounded with level of education (Knight, 1996a, 1996b).

## IMPLICATIONS FOR FUTURE RESEARCH AND SUPPORT PROGRAMMES

The cognitive modes of sociotropy and autonomy proposed by A. T. Beck et al. (1983) have been extensively researched with student and young adult samples. However, little research has been done with samples of older adults. The present study aims to address this deficit by investigating the nature of sociotropy/autonomy and the relationships between the sociotropy/autonomy concepts and network size, perceived availability of support, and receipt of support from family and friend sources in a sample of New Zealand older adults.

The present cross-sectional study offers a 'snapshot' view of sociotropy/autonomy and social support, and how they are related, in a group of older adults living in the general population of New Zealand. As such it provides valuable information, particularly about the structure of the schematic modes of sociotropy/autonomy in older adults, and how they are assessed. Furthermore, it offers directions for further research into these constructs among the aged. However, this form of research design does not assess any changes over time in the relationships between the sociotropy/autonomy variables and the use and perception of the different sources of support, and does not allow the effects of ageing to be distinguished from cohort effects. Further longitudinal research is required to disentangle these important relationships.

The exploratory nature of the present study limits the drawing of definite conclusions in regard to the causal relationships between the personality cognitive styles of sociotropy/autonomy and the use and perception of social support. However, it has explored the relationships between the constructs, and while it needs replication and more in-depth analysis, the analyses have provided grounds for future research. It is also necessary for these findings to be verified by further research, in order to fully explain how these constructs work together to enhance the mental well-being of older adults.

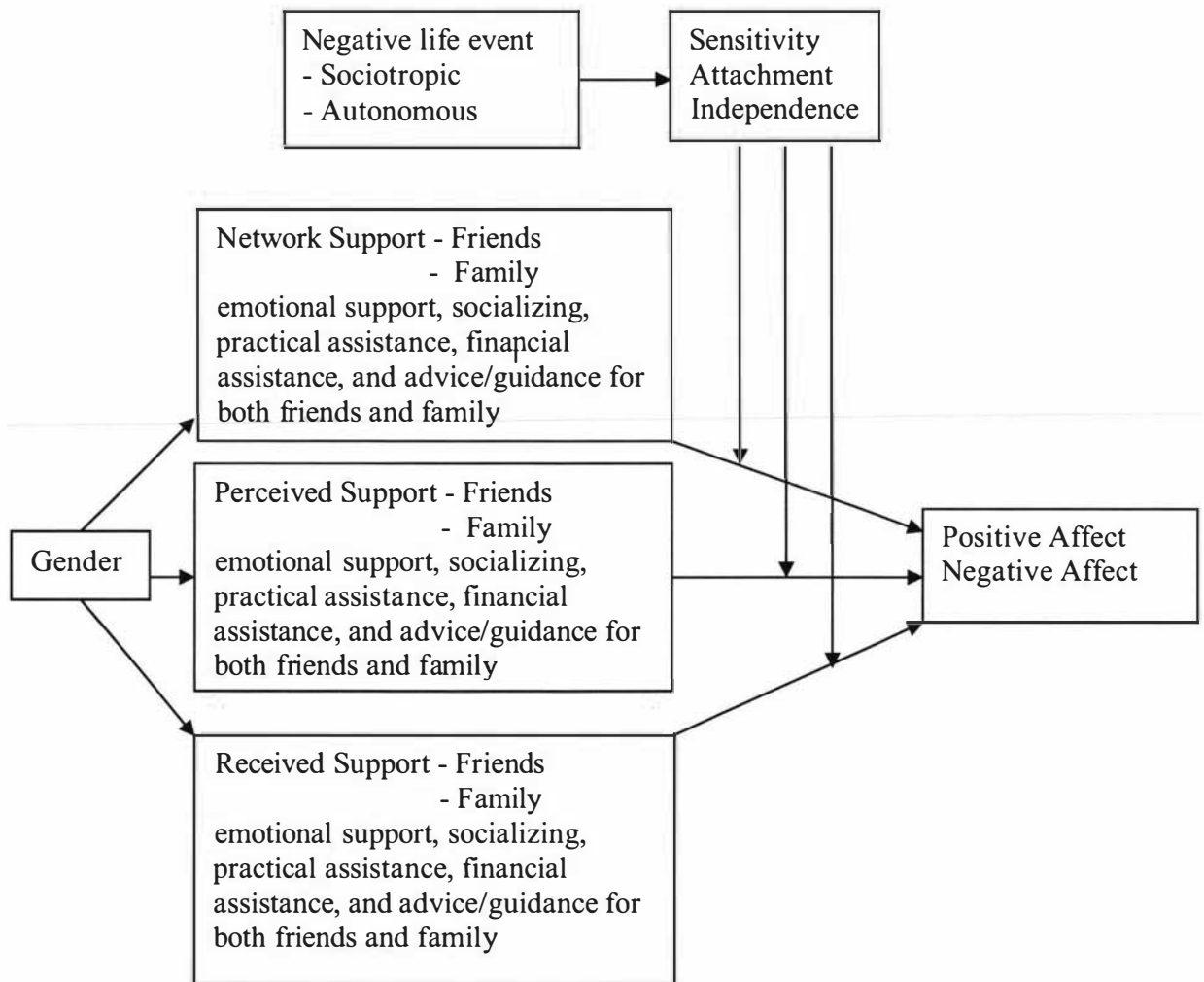
The findings in Study 1 suggest that the sociotropy/autonomy components may not be orthogonal constructs as A. T. Beck et al. (1983) have claimed, at least among older adults. The correlations found between the sociotropy and autonomy components support Coyne

and Whiffen's (1990) argument that the constructs are not independent. Neither do they appear to be stable across all age groups. Among the younger sample of New Zealand students the component structure was orthogonal and consisted of one sociotropy component and two autonomy components, Independence and Solitude, supporting those found by D. A. Clark et al. (1995) with American students. But the structure was not stable across the life span. A structure consisting of two sociotropy components, Sensitivity and Attachment, and one autonomy component, Independence was more appropriate for older adults. However, for them the three components are correlated. The difference between the original factor structure of the sociotropy/autonomy concepts, and the component structure under investigation, appears to be due to age. These findings bring the suitability of the SAS-Rev subscales of Sociotropy, Solitude, and Independence, which have been verified with factor analyses among younger age groups (D. A. Clark et al., 1995), into question when assessing older adults. However, the Sensitivity, Attachment, and Independence components need to be investigated further with older adult samples in order to be verified.

In investigating the relationships between Sensitivity, Attachment, Independence, and social support from both family and friends, the SRLE, the SAS-Rev, and the SSB were shortened in order to make them more practical for research with older adults. However, the abbreviated forms of the measures have not been used previously in research, and as such need to be tested and validated in further research.

In the present study, the only predictive relationships indicated between the sociotropy/autonomy components and social support was between Attachment and Available Family Support, Available Friend Support, and Received Friend Support. However, the support measures were treated as global constructs, and more in-depth research is needed to tease out the relationships between the components of Sensitivity, Attachment, and Independence, and the five modes of social support measured by the SSB (namely emotional support, socializing, practical assistance, financial assistance, and advice/guidance). It could be expected that the sociotropy/autonomy components of Sensitivity, Attachment, and Independence might influence how older adults use and perceive the different modes of support in different ways. It is thus suggested that in future

research the model depicted in Figure 1 be modified (as seen in Figure 2) to include the three sociotropy/autonomy components, Sensitivity, Attachment, and Independence, and the five support functions for each form of support, in order to enable a finer detailed investigation to be undertaken.



*Figure 2:* Modified model of sociotropy/autonomy as moderating factors in the relationships between support variables and mood.

This study has focused on older New Zealand adults of European descent. However, data gathered from older adults in New Zealand from other ethnic groups was not able to be adequately assessed owing to low response rates from them, due largely to the methodology used. There is some evidence to suggest that they may use and perceive social support in different ways from European/Pakeha participants (Vaux, 1985; Wilson & Everts, 1995). Also, Fletcher and Lynn (2002) have noted that New Zealand statistics indicate an increasing ethnic diversity amongst older New Zealanders. By 2051, Maori aged 65 or older will make up approximately 10 percent of older people and 13 percent of the total Maori population (a 500 percent increase from 2001). The proportion of Pacific Island people aged 65 and over will also increase from 1.6 percent of the total older population in 2001, to 2.3 percent in 2016, and to 4.4 percent by 2051. They will reach 11 percent of the Pacific population by 2051 compared with 3.5 percent in 2001 (an increase of 860 percent). In 2001, 3.3 percent of Asian people were aged 65 and older, but this is expected to increase to 7.3 percent by 2016. Older Asian adults made up 2.2 percent of the total population aged 65 and older in 2001, but by 2016 they will increase to 4 percent of the population. As such, it is important that research using more culturally appropriate methodologies, that also address the use of English as a second language, is used to target Maori, Pacific Island, and Asian older adults.

None of the sociotropy/autonomy components were found to moderate the relationship between social support and affect in this study. However, relationships were found which can inform policy initiatives and strategies promoting positive and active ageing, such as those authorized by the Ministry of Health (Dyson, 2002) and the World Health Organization (2002).

The important role of support both perceived to be available, and that is obtained through older adults' friendships, adds support to initiatives proposed by the Ministry of Health (Dyson, 2002) encourageing the participation of older adults in community life, and in providing support services to assist them to remain living in their own homes. It is, after all, within our own local communities that we build our friendships and maintain contact with them. Services could be further developed in assisting older adults to maintain contacts

with their friends when their mobility becomes threatened through such things as inability to hold driving licenses, and increased physical disability. The importance of support received from friends as a predictor of mental well-being (in the form of Positive Affect) among older adults, also highlights the need for support services to encourage, and enable, older adults to maintain their friendships in order to enhance their mental well-being and reduce their vulnerability to depression and anxiety.

Furthermore, recognizing the relationship between a personality cognitive style which emphasizes one's interconnectedness with others and the reliance on friends as a source of support, allows support services assisting the maintenance of friendship relationships, to be targeted towards older adults for whom they are most helpful. Further research investigating the relationships between the sociotropy/autonomy cognitive styles and support modes could allow support services to differentiate who would benefit most from which functions of support.

The findings that, for older adults, high levels of Sensitivity are predictive of an affect constellation that is characteristic of depression, but that Independence plays a protective role against mental ill-health supports previous research (Sato & McCann, 1998). They also have implications for cognitive therapeutic practice with older adults, in that interventions can address Sensitivity as a cognitive construct that is indicative of the development of depression, while bolstering their levels of Independence to enhance their mental well-being.

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**APPENDIX A**

**OLDER ADULT SAMPLE**

**INVITATION LETTER**



January 2004

## PERSONALITY AND SOCIAL SUPPORT SURVEY

Hello,

I am writing to ask you for your help in a study investigating how older adults use and perceive social support. This study is being conducted as part of my Ph.D. research project at Massey University, under the supervision of Assoc. Professor Paul Merrick.

Social support plays an important role in maintaining people's health, and is included in many programmes aimed at enhancing the physical and mental well-being of older adults. But does everyone view social support in the same way? The results of this survey will shed light on how personality affects how people use and perceive support from others in different ways. This knowledge can be used to make such programmes more useful.

Enclosed is a copy of the questionnaire, which I would be grateful if you could answer and return in the freepost envelope provided. It will take about 30 minutes, and all you have to do is tick the boxes that apply to you, or write a short answer in the space provided. There are no right or wrong answers. Please just answer the questions as honestly as you can. Please read the enclosed Information Sheet which explains this study in more detail.

You can help advance the knowledge base needed to increase the effectiveness of social support programmes for older adults by taking the time to share your experiences and opinions about the support you receive. I would very much appreciate your time and effort in completing the enclosed survey. If for some reason you prefer not to respond please let me know by returning the blank questionnaire in the enclosed freepost envelope.

If you have any questions about the survey or would like to talk about it, please contact either myself or Paul Merrick, at the address or phone number listed in the enclosed Information Sheet.

I hope you enjoy filling out the questionnaire, and I look forward to receiving it as soon as possible.

Yours sincerely,

Gillian Craven  
School of Psychology

**APPENDIX B**

**OLDER ADULT SAMPLE  
INFORMATION SHEET**



## PERSONALITY AND SOCIAL SUPPORT SURVEY

### INFORMATION SHEET

#### Introduction

The purpose of this study is to evaluate how older adults use and perceive social support and the effect that personality might have on this, and it is being conducted as part of a PhD research project. The research team consists of Associate Professor Paul Merrick who is supervising the study, and Ms Gillian Craven, PhD candidate. Our contact details are:

Ms Gillian Craven  
School of Psychology  
Massey University  
Private Bag 11-222  
Palmerston North

Associate Professor Paul Merrick  
School of Psychology  
Massey University  
Private Bag 102-904  
Albany  
Auckland

Phone: (06) 350 5799 Ext. 2048 or Freephone 0800 783500

Fax: (06) 350 5673

Email: [G.Craven@massey.ac.nz](mailto:G.Craven@massey.ac.nz)

#### Participant Recruitment

You are one of 1,000 people aged 65 years and older living in private residences, whose names have been randomly selected from the electoral roll. We need many people's responses for the results to be generalised to all adults aged 65 years and older who live in New Zealand.

#### Project Procedure

Your answers will be completely confidential and will be released only as group analyses in which no individual's answers can be identified. All questionnaires and data will be kept confidential to the research team and will be kept in secure storage in the School of Psychology, Massey University. The data will be used for this study only. It will be kept for five years after the completion of the project. After that period, it will be destroyed.

## **APPENDIX C**

### **OLDER ADULT SAMPLE SURVEY QUESTIONNAIRE**

CONFIDENTIAL

ID:

PERSONALITY AND SOCIAL SUPPORT  
A SURVEY

A Research Study conducted at the  
School of Psychology  
Massey University



**Massey University**

### *How to fill in this questionnaire*

- All the information you give is in confidence and will be used for the purposes of this study only.
- Please answer every question and be careful not to skip any pages.
- All you have to do is tick a box, or write in the space provided.
- There are no right or wrong answers, we want the response which is best for you.
- It is important that you give your own answers to the questions. Please do not discuss your answers with others.
- When you have completed the questionnaire please return it in the enclosed envelope.
- Enjoy the questionnaire, and thank you for your help.

**First of all, we would like to ask you some questions about how you see yourself and other people around you.**

Please indicate what percentage of the time each of the statements below applies to you by using the scale to the right of the items. Choose the percentage that comes closest to how often the item describes you, and put a tick in the square  under that percentage column for each item.

If the item does not apply to you tick the 0% box.

Office Use Only

		<b>Percentage that describes you</b>					
		<b>0%</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>100%</b>	
<b>1</b>	It is important to be liked and approved of by others	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	17
<b>2</b>	I am afraid of hurting other people's feelings.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	18
<b>3</b>	I do things that are not in my best interest in order to please others.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	19
<b>4</b>	I get lonely when I am home by myself at night.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	20
<b>5</b>	My close friends and family are too sensitive to what other people say	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	21
<b>6</b>	I get uncomfortable when I am not sure how I am expected to behave in the presence of other people.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	22
<b>7</b>	When I am with other people I look for signs of whether or not they like being with me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	23
<b>8</b>	When visiting people, I get fidgety when sitting around talking and would rather get up and do something.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	24
<b>9</b>	I am more concerned that people like me than I am about making important achievements.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	25

**Percentage that describes you**

Office  
Use  
Only

**0%      25%      50%      75%      100%**

<b>10</b>	The worst part of growing old is being left alone.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	26
<b>11</b>	Being able to share experiences with other people makes them much more enjoyable for me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	27
<b>12</b>	When I have a problem, I like to go off on my own and think it through rather than being influenced by others.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	28
<b>13</b>	I find it hard to pay attention to a long conversation, even with friends.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	29
<b>14</b>	Having close bonds with other people makes me feel secure.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	30
<b>15</b>	I am concerned that if people knew my faults or weaknesses they would not like me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	31
<b>16</b>	I set my own standards and goals for myself rather than accepting those of other people.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	32
<b>17</b>	I worry that someone I love will die	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	33
<b>18</b>	If a goal is important to me I will pursue it even if it may make other people uncomfortable.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	34
<b>19</b>	I find it difficult to say “no” to people.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	35
<b>20</b>	I censor what I say because I am concerned that the other person may disapprove or disagree with me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	36

**Percentage that describes you**

Office  
Use  
Only

		0%	25%	50%	75%	100%	
<b>21</b>	I am usually the last person to hear that I've hurt someone by my actions.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	37
<b>22</b>	I often find myself thinking about friends or family.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	38
<b>23</b>	I would rather take personal responsibility for getting the job done than depend on someone else.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	39
<b>24</b>	If a friend has not called for a while I get worried that he or she has forgotten me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	40
<b>25</b>	It is important to me to be free and independent.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	41
<b>26</b>	Often I fail to consider the possible consequences of my actions.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	42
<b>27</b>	When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	43
<b>28</b>	If I think I am right about something, I feel comfortable expressing myself even if others don't like it.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	44
<b>29</b>	I am uneasy when I cannot tell whether or not someone I've met likes me.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	45
<b>30</b>	If somebody criticises my appearance, I feel I am not attractive to other people.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	46
<b>31</b>	I tend to fret and worry over my personal problems.	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	47

**Percentage that describes you**

**0%      25%      50%      75%      100%**

Office  
Use  
Only

- |           |   |                            |                            |                            |                            |                            |    |
|-----------|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----|
| <b>32</b> | I get uncomfortable around a person who clearly does not like me.   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 48 |
| <b>33</b> | It is more important to be active and doing things than having close relations with other people.           | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 49 |
| <b>34</b> | The possibility of being rejected by others for standing up for my rights would not stop me.                | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 50 |
| <b>35</b> | I need to be engaged in a challenging task in order to feel satisfied with my life.                         | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 51 |
| <b>36</b> | I don't enjoy what I am doing unless I feel that someone in my life really cares about me.                  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 52 |
| <b>37</b> | I like to be certain that there is somebody close I can contact in case something unpleasant happens to me. | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 53 |
| <b>38</b> | I am more apologetic than I need to be  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 54 |
| <b>39</b> | I prize being a unique individual more than being a member of a group.                                      | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 55 |
| <b>40</b> | If I think somebody may be upset at me, I want to apologise.  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 56 |
| <b>41</b> | I become particularly annoyed when a task is not completed.   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 57 |
| <b>42</b> | I find it difficult to be separated from people I love.   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | 58 |

**Now we would like you to think about the people you turn to when you have some sort of problem.**

Please list your family members and friends who currently give you help or support. You might have one or two such people, or you might have lots, but please do not list more than 10. Write their initials and their relationship to you in the spaces provided below the example.

Office  
Use  
Only

**HERE IS AN EXAMPLE:**

1	RB	Husband
2	LM	Friend
3	KS	Sister
4	RL	Cousin

If there is **no-one** you go to for help or support, then tick the box below.

**Initials**

**Relationship**

No-one

1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____

59

60

61

62

63

64

65

66

67

68

69

70-71 72-73

People help each other in a lot of different ways. If you had some kind of problem, e.g. you were upset about something, needed help with a practical problem, were short of money, or needed some advice or guidance, **how likely** would (a) **MEMBERS OF YOUR FAMILY**, and (b) your **FRIENDS** be to help you out in each of the specific ways listed below.

We realise you may rarely need some particular kinds of help, but **if you did** would family and friends help in the ways indicated.

For each statement below, please tick one box  under family, **AND** one box  under friends, for each item.

If an item does not apply to you, then tick the box for “No-one would”

	Would anyone do this?	Family					Friends					
		No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	
1	Suggest doing something just to take my mind off my problems	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	74
2	Comfort me if I was upset	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	75
3	Give me a ride if I needed one	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	76
4	Have lunch or dinner with me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	77
5	Look after my belongings (house, pets, etc.) for a while	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	78

For each statement below, please tick one box  under family, AND one box  under friends, for each item.

under family,

Office  
Use  
Only

Would anyone do this?	Family					Friends					
	No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	
6 Listen if I needed to talk about my feelings	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	79
7 Have a good time with me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	80
8 Give me advice about what to do	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	81
9 Help me figure out what I wanted to do	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	82
10 Give me a hug, or otherwise show me I was cared about	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	83
11 Help me out with some necessary purchase	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	84
12 Tell me who to talk to for help	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	85
13 Loan me money for an indefinite period	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	86
14 Stick by me in a crunch	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	87
15 Loan me tools, equipment or appliances if I needed them	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	88

For each statement below, please tick one box  under family, AND one box  under friends, for each item.

Office  
Use  
Only

Would anyone do this?	Family					Friends					
	No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	No one would	Someone might	Someone probably would	Someone certainly would	Most people certainly would	
16 Give me reasons why I should or should not do something	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	89
17 Bring me little presents of things I needed	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	90
18 Tell me what to do	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	91

*Thank you for answering the questionnaire so far.*

*Please make sure that you have ticked a box for family AND a box for friends for every item*

**Now, we would like to ask you some questions about your current mood.**

Below is a number of words that describe different feelings and emotions. Read each item and then **tick the box** for the appropriate answer next to that item. Indicate to what extent you have felt this way **DURING THE PAST SEVEN DAYS**.

Office  
Use  
Only

**interested**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

92

**distressed**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

93

**excited**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

94

**upset**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

95

**strong**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

96

**guilty**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

97

**scared**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

98

**hostile**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

99

Have you felt this **DURING THE PAST SEVEN DAYS?**

Office  
Use  
Only

**enthusiastic**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

100

**proud**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

101

**irritable**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

102

**alert**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

103

**ashamed**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

104

**inspired**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

105

**nervous**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

106

**determined**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

107

**attentive**

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very slightly or not all	A little	Moderately	Quite a bit	Extremely

108

Have you felt this **DURING THE PAST SEVEN DAYS?**

Office  
Use  
Only

**jittery**

 1 2 3 4 5

Very slightly  
or not all

A little

Moderately

Quite a bit

Extremely

109

**active**

 1 2 3 4 5

Very slightly  
or not all

A little

Moderately

Quite a bit

Extremely

110

**afraid**

 1 2 3 4 5

Very slightly  
or not all

A little

Moderately

Quite a bit

Extremely

111

***Thank you for completing the questionnaire so far***

*Please check that you have answered each item  
before moving on*

**Next, we would like you to think about some events that may have happened to you recently.**

Following is a list of experiences which many people have sometime or other. Firstly, please indicate for each experience listed below how much it has been a part of your life **OVER THE PAST MONTH**.

To do this put a **TICK IN THE BOX BESIDE THE APPROPRIATE NUMBER UNDERNEATH EACH ITEM**, using the key provided.

For example: If car problems have been *only slightly part of your life over the past month* you would respond by ticking the box beside the number "2", like this:  2 underneath the statement "Car problems"

<b>Use the following key for your response:</b>			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<i>not at all</i> part of my life	<i>only slightly</i> part of my life	<i>distinctly</i> part of my life	<i>very much</i> part of my life

Office  
Use  
Only

**1** Disliking your daily activities

1       2       3       4

112

**2** Disliking your task related activities or work

1       2       3       4

113

**3** Conflicts with in-laws

1       2       3       4

114

**4** Being let down or disappointed by friends

1       2       3       4

115

**5** Social rejection

1       2       3       4

116

**6** Too many things to do at once

1       2       3       4

117

<b>Use the following key for your response:</b>			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<i>not at all</i> part of my life	<i>only slightly</i> part of my life	<i>distinctly</i> part of my life	<i>very much</i> part of my life

**7** Having your trust betrayed by a friend

1       2       3       4

118

**8** Struggling to meet your own standards of performance and accomplishment

1       2       3       4

119

**9** Not enough leisure time

1       2       3       4

120

**10** A lot of responsibilities

1       2       3       4

121

**11** Dissatisfaction with your task related activities or work

1       2       3       4

122

**12** Not enough time to meet your obligations

1       2       3       4

123

**13** Lower evaluation of your task related activities or work than you think you deserve

1       2       3       4

124

**14** Conflicts with family members

1       2       3       4

125

**15** Finding your task related activities or work too demanding

1       2       3       4

126

Use the following key for your response:			
<b>1</b> <i>not at all</i> part of my life	<b>2</b> <i>only slightly</i> part of my life	<b>3</b> <i>distinctly</i> part of my life	<b>4</b> <i>very much</i> part of my life

**16** Conflicts with friend(s)

1       2       3       4

127

**17** Unwanted interruptions of your task related activities or work

1       2       3       4

128

**18** Social isolation

1       2       3       4

129

**19** Being ignored

1       2       3       4

130

**20** Dissatisfaction with your physical appearance

1       2       3       4

131

**21** Finding your task related activities or work uninteresting

1       2       3       4

132

**22** Dissatisfaction with your physical fitness

1       2       3       4

133

**23** Gossip about yourself

1       2       3       4

134

**24** Hard work to look after and maintain your home

1       2       3       4

135

**Now, we would like you to think about the help and support you have ACTUALLY RECEIVED from other people when you had some kind of problem.**

How often have (a) members of your **FAMILY** and (b) your **FRIENDS** done the following things to help you? Please base your answers on actual occurrences.

For each statement below, please tick one box  under family, AND one box  under friends, for each item.

If the item does not apply to you, then tick the "Never" box.

	Family			Friends			
	Never	Some - times	Often	Never	Some - times	Often	
<b>1</b> Visited with me, or invited me over	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	136
<b>2</b> Loaned me a car if I needed one	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	137
<b>3</b> Joked around or suggested doing something to cheer me up	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	138
<b>4</b> Went to a movie or concert with me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	139
<b>5</b> Suggested how I could find out more about a situation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	140
<b>6</b> Helped me out with a move or other big chore	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	141
<b>7</b> Suggested a way I might do something	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	142
<b>8</b> Chatted with me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	143

Office  
Use  
Only

Did anyone do this?	Family			Friends			Office Use Only
	Never	Some - times	Often	Never	Some - times	Often	
9 Showed me that they understood how I was feeling	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	144
10 Helped me to decide what to do	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	145
11 Was sympathetic when I was upset	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	146
12 Bought me clothes when I was short of money	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	147
13 Told me about the available choices and options	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	148
14 Showed affection for me	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	149
15 Told me the best way to get something done	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	150
16 Loaned me money and wanted to “forget about it”	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	151
17 Offered me a place to stay for a while	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	152
18 Loaned me a fairly large sum of money ( e.g. equal to a month’s rent or mortgage )	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	153

*Please check that you have ticked a box for family AND a box for friends for every item*

In general, how satisfied are you with the help and support that you **CURRENTLY** receive from **MEMBERS OF YOUR FAMILY**? (*Please tick one box*).

154

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
very satisfied	fairly satisfied	a little satisfied	a little <b>dissatisfied</b>	fairly <b>dissatisfied</b>	very <b>dissatisfied</b>

In general, how satisfied are you with the help and support that you **CURRENTLY** receive from your **FRIENDS**? (*Please tick one box*).

155

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
very satisfied	fairly satisfied	a little satisfied	a little <b>dissatisfied</b>	fairly <b>dissatisfied</b>	very <b>dissatisfied</b>

***Thank you for completing the questionnaire so far***

*Please check that you have answered each item  
before moving on*

**Lastly, we would like some general background information about you.**

Some of these questions may seem personal but they are important to this study.

Remember that all responses will remain **STRICTLY CONFIDENTIAL**

**Please tick the box  next to the answer which you believe gives an accurate indication of your CURRENT situation, or write the appropriate details in the spaces provided.**

Office  
Use  
Only

**1 What is your gender?**

- <sub>1</sub> Male                       <sub>2</sub> Female

156

**2 What is your age (in years)?**

\_\_\_\_\_

157-159

**3 Which ethnic group/s do you belong to?**

*(You may tick more than one box.)*

- <sub>1</sub> New Zealand European  
 <sub>1</sub> Pakeha  
 <sub>1</sub> Maori  
 <sub>1</sub> Pacific Islander  
 <sub>1</sub> Chinese  
 <sub>1</sub> Indian  
 <sub>1</sub> Other (Please specify)

160

161

162

163

164

165

166

\_\_\_\_\_

**4 Which of the following best describes your marital status?**

*(Please tick one box.)*

- <sub>1</sub> Married  
 <sub>2</sub> Living with a partner  
 <sub>3</sub> Widowed  
 <sub>4</sub> Divorced  
 <sub>5</sub> Single, never married

167

**Please tick the box**  **which you believe gives an accurate indication of your CURRENT situation, or write details in the spaces provided.**

**5 In terms of your social status, which of the following categories do you think you fit into?**

- 1 Upper class
- 2 Upper middle class
- 3 Middle class
- 4 Lower middle class
- 5 Working class
- 6 Lower class
- 7 Don't know

**6 What is your HIGHEST educational qualification?**

*(Please tick one box.)*

- 1 No educational qualifications
  - 2 School Certificate (or equivalent)
  - 3 University Entrance (or equivalent)
  - 4 Trade certificate or Professional certificate or diploma
  - 5 Undergraduate university degree, diploma, or certificate
  - 6 Post-graduate university degree or diploma,
  - 7 Other (Specify in the space provided below)
- 

**7 What is your employment status?**

*(Tick one box)*

- 1 Employed – full-time (35+ hours weekly)
- 2 Employed – part-time (15-35 hours weekly)
- 3 Employed – less than 15 hours weekly
- 4 Retired

Office  
Use  
Only

168

169

170

**QUESTION 8 ASKS ABOUT THE OCCUPATION OF THE PERSON WHO IS, OR WAS, THE MAIN INCOME EARNER IN YOUR HOUSEHOLD. THAT PERSON MAY BE YOURSELF OR YOUR SPOUSE.**

Office  
Use  
Only

- 8 IF the main income earner is employed, what is your/their main occupation?  
OR if the main income earner is retired what was your/their main occupation before retirement?  
OR if they are deceased what was their main occupation?**

Please describe fully, using two words or more, e.g. builder's labourer *not* labourer, accounts clerk *not* clerk.

171-173

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- 9 How much is the current total yearly income of everyone in your family household from all sources before tax is taken out?**

Include your own income and the income of others e.g. your spouse or partner, that is available to you  
(Please tick one box).

- 1 Less than \$10,000  
 2 \$10,001 - \$15,000  
 3 \$15,001 - \$20,000  
 4 \$20,001 - \$25,000  
 5 \$25,001 - \$30,000  
 6 \$30,001 - \$40,000  
 7 \$40,001 - \$50,000  
 8 \$50,001 - \$70,000  
 9 \$70,001 - \$100,000  
 10 \$100,001 or more  
 11 Don't know

174-175

- 10 How many people (including yourself) are dependent on that income?**

---

176-177

*Thank you very much for completing this survey*

*Your time and effort are very much appreciated*

**All you need to do now is to put this questionnaire into the postage-paid envelope supplied and return it to me as soon as you can**

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If you would like a copy of a summary of the results of this survey sent to you, please write your name and address in the box below. The information you provide will remain confidential and will be kept separate from your individual responses.

The summary will be available in the middle of 2004, so if you change your address before then, please let me know your new address.

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## **APPENDIX D**

### **OLDER ADULT SAMPLE**

#### **REMINDER POSTCARD**

Wording for the Massey University postcard, which as sent out to participants who had not responded 2 weeks after the original questionnaire.

Dear Sir/Madam,

Recently you should have received an invitation to participate in a Personality and Social Support Survey. If you have returned it to us, thank you very much. If you have not yet done so, this is a friendly reminder to complete the questionnaire and send it back to us as soon as possible. If you have any questions, you can contact me at (06) 356 9099 Ext. 2048, or Freephone 0800 783500.

Thank you,

Gillian Craven  
School of Psychology

**APPENDIX E**

**OLDER ADULT SAMPLE  
SECOND REMINDER LETTER**



18 February 2004

## PERSONALITY AND SOCIAL SUPPORT SURVEY

Hello,

Recently I sent you a letter requesting your assistance in a study investigating how older adults use and perceive social support. I enclosed a copy of the survey which I have not yet received back from you. In case it got mislaid, I have sent you another copy, which I would be grateful if you could answer and return in the freepost envelope provided.

This study is being conducted as part of my Ph.D. research project at Massey University, under the supervision of Assoc. Professor Paul Merrick.

Social support plays an important role in maintaining people's health, and is included in many programmes aimed at enhancing the physical and mental well-being of older adults. But does everyone view social support in the same way? The results of this survey will shed light on how personality affects how people use and perceive support from others in different ways. This knowledge can be used to make such programmes more useful.

The questionnaire will take about 30 minutes, and all you have to do is tick the boxes that apply to you, or write a short answer in the space provided. There are no right or wrong answers. Please just answer the questions as honestly as you can. Please read the enclosed Information Sheet which explains this study in more detail.

I would very much appreciate your participation in this study. You can help advance the knowledge base needed to increase the effectiveness of social support programmes for older adults by taking the time to share your experiences and opinions about the support you receive. If you have any questions about the survey or would like to talk about it, please contact either myself or Paul Merrick at the address or phone number listed in the enclosed Information Sheet.

I hope you enjoy filling out the questionnaire, and I look forward to receiving it as soon as possible.

Yours sincerely,

Gillian Craven  
School of Psychology

**APPENDIX F**

**OLDER ADULT SAMPLE**

**FEEDBACK LETTER**



20 December 2006

## PERSONALITY AND SOCIAL SUPPORT SURVEY

Dear Participant

Thank you for participating in the Personality and Social Support Survey some time ago as part of the research conducted as part of my PhD project. Your participation was valuable to the research project, and your interest and effort in completing the questionnaire is very much appreciated. This letter is a follow-up to provide you with a summary of the results of the study. I apologise for the delay in sending you this feedback material. Your responses have provided a wealth of complex data, which has provided a lot of very useful information but has unfortunately taken longer than anticipated to analyse fully. This can sometimes be the nature of research and things do not always go according to plan. However, the project has now come to an end and I have attached a summary of the results of the study, which I hope will be of interest to you.

Thank you again for your participation and patience

Regards

Gillian Craven

PhD Candidate and Researcher

## PERSONALITY AND SOCIAL SUPPORT SURVEY

### **Theoretical Background of the Research**

This study investigated how older adults' use and perception of informal social support are influenced by two personality styles: sociotropy (i.e. an inclination towards seeking support, connection, and nurturance from other people); and autonomy (i.e. an inclination towards preserving one's own independence, self-direction, and the achievement of goals).

It has been proposed that people with high levels of sociotropy and autonomy are vulnerable to the development of depression when facing stressful life events that match their personality style. While there has been a lot of research investigating these personality styles in younger adults and students (mainly American or British), very few studies have looked at them in older adults, and none in a New Zealand sample.

Social support, on the other hand, has consistently been identified in previous research as a protective factor against the development of depression or anxiety. The main providers of informal support has are usually friends and family members.

### **The Present Study**

The present study evaluated the personality styles of sociotropy/autonomy among older adults, and investigated their influence on the use and perception of social support. It consisted of two parts:

Part 1 investigated the structure of the sociotropy/autonomy concepts among older adults in New Zealand, and compared it with the structure found in a concurrent study with a New Zealand student sample.

Part 2 looked at the relationships between sociotropy/autonomy and social support, and how they influence the mental well-being of older adults in New Zealand. Three types of informal support were investigated, (i) network size, (ii) the amount of support that is perceived to be available from friends and family members, and (iii) the amount of support that is actually received from friends and family members.

## **Results**

### **Part 1**

Data gathered from the older adults indicated that the structure of sociotropy and autonomy is different from that found in the student sample. With older adults a structure consisting of two sociotropy components (Interpersonal Sensitivity and Attachment) and one autonomy component (Independence) was found. Even though they are theoretically unrelated, the sociotropy and autonomy components were found to be weakly related. On the other hand the student sample showed the component structure which consisted of one Sociotropy component and two autonomy components (Independent Goal Achievement and Solitude). For this group, the sociotropy and autonomy components were not related. This was very similar to the structure that has been indicated in previous research with younger adults and students in America and Great Britain.

Thus it is proposed that the nature of sociotropy and autonomy is different for older adults than for younger age groups. The component structure of sociotropy/autonomy found with older adults is also different from the components usually assessed in one of the most frequently used measures of sociotropy and autonomy. The difference in the structures appears to be due to age rather than any cultural differences between American or British groups and New Zealanders. Also for older adults, the structure of sociotropy/autonomy consists of related (rather than independent concepts), which are less clearly differentiated than in younger age groups.

### **Part 2**

Older women's networks included more friends than those of the men. However no differences were found between the men and women in the number of family members in their networks, the perceived availability of support from either friends or family

members, or the amount of support received from either friends or family members. Overall more support was perceived to be available from both friends and family than was actually received. However, moderate levels of satisfaction were expressed with the support received.

Attachment was the only sociotropy/autonomy component to influence social support. Increased levels of Attachment predicted (i) decreased levels of support perceived to be available from family members, (ii) increased levels of support perceived to be available from friends, and (iii) increased levels of support received from family members. Support received from friends was the only form of support to contribute to increased levels of mental well-being.

Of the sociotropy/autonomy factors, Independence contributed to mental well-being, while Interpersonal Sensitivity predicted poorer well-being. However, none of the sociotropy/autonomy factors had an influence on the relationship between support received from friends and mental well-being.

### **Conclusion**

Older adults experience the personality styles of sociotropy/autonomy differently than younger adults do. Moreover for older adults, the two sociotropy factors (Interpersonal Sensitivity and Attachment) and the autonomy factor (Independence) are less clearly differentiated than for younger groups. It is important that these differences are recognised in the assessment of sociotropy/autonomy among older adults and that further research is undertaken into the nature of sociotropy/autonomy among older adults.

This study has also highlighted the importance that support from friends has for the mental well-being of older adults, and the role that feelings of attachment with others plays in both the perceptions of support availability from friends, and the support that is received from family members. These findings have implications for both the development of support programmes and psychological interventions for older adults.

## APPENDIX G

### STUDENT SAMPLE

#### RECRUITMENT ADVERTISEMENT

### DO AGE AND CULTURE INFLUENCE PERSONALITY?

HELP! I am looking for students to fill in a short online questionnaire on personality styles.

I am a PhD student in the School of Psychology at Massey University and I am investigating the influence of culture and age on personality styles.

- What are your daily hassles?
- How do you see yourself?
- How do you see others in your world?

More information about the study at the website:  
<http://personality.massey.ac.nz>

Thank you. I would appreciate your help.

Gillian Craven  
PhD Candidate  
School of Psychology  
Massey University

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## APPENDIX H

### STUDENT SAMPLE

#### ONLINE RECRUITMENT LETTER

##### DO AGE AND CULTURE INFLUENCE PERSONALITY?

HELP! I am looking for students to fill in a short online questionnaire on personality styles.

Hi,

I am a PhD student in the School of Psychology at Massey University, and I am investigating the influence of culture and age on personality styles. While most of the research in this area has been done overseas, I am studying how personality differs (or not) between people of different ages in New Zealand/Aotearoa and from those in other areas of the world. In this part of the project I am looking at personality styles among students who live in New Zealand.

Would you be able to help me by filling in an anonymous 10 minute questionnaire about your own experiences, and how you see yourself and others in your world. You do not need to have been born in New Zealand/Aotearoa to participate, but you do need to be currently living in New Zealand/Aotearoa.

You can find more information about participating in the study at the website link below.

Thank you. I would appreciate your help.

Gillian Craven  
PhD Candidate  
School of Psychology  
Massey University  
Private Bag 11 222  
Palmerston North  
New Zealand  
Email: G.Craven@massey.ac.nz  
Phone: (06) 350 5799 Ext. 2048

Click to go to the Information Sheet <http://personality.massey.ac.nz>

**APPENDIX I**

**STUDENT SAMPLE**

**ONLINE SURVEY INFORMATION SHEET**

## DO AGE AND CULTURE INFLUENCE PERSONALITY?

Dear Participant,

I am a graduate student in the School of Psychology at Massey University. As part of my PhD research I am investigating the influence of culture and age on personality styles. While most of the research in this area has been done overseas, I am studying how personality differs (or not) between people of different ages in New Zealand/Aotearoa and from those in other areas of the world. In this part of the project I am looking at personality styles among students who live in New Zealand. So I would really appreciate it if you could help me by filling in the attached anonymous questionnaire. You do not need to have been born in New Zealand/Aotearoa to participate, but you do need to be currently living in New Zealand/Aotearoa.

In this study you are asked to complete a survey questionnaire, which will take about 10 minutes. There are no right or wrong answers. I just want to know your own experiences, and how you see yourself and others in your world.

- Participation is voluntary, and you have the right to decline to participate.
- I would appreciate it if you would answer all the questions in the survey; however you have the right to decline to answer any particular question.
- The questionnaires are anonymous. You are not asked to disclose your name on the questionnaire.
- Your answers will be completely confidential. The information will be released only as group analyses in which no individual's answers can be identified. All questionnaires and data will be kept confidential to the research team and will be kept in secure storage in the School of Psychology, Massey University. The data will be used for this study only. It will be kept for five years after the completion of the project. After that period, it will be destroyed.
- Submission of the questionnaire implies your consent for the information you provide to be used in the study. Once you have submitted the completed questionnaire, you are not able to withdraw from the study, as it will not be possible to identify individual responses.
- You can request a summary of the project findings to be sent to you. Your contact information will be automatically stored in a separate file from the information you provide in the questionnaire. So you can be assured that even I, as the researcher, will be unable to link the information you provide, to you as an individual.
- This study is being conducted under the supervision of Assoc. Prof. Paul Merrick, who is in the School of Psychology, Massey University. If you have any questions about the survey or would like to talk about it, please contact me at the address below.

Thank you in advance for taking the time to complete this questionnaire. I appreciate your help.

Gillian Craven  
PhD Candidate  
School of Psychology  
Massey University  
Private Bag 11 222  
Palmerston North  
New Zealand  
Email: G.Craven@massey.ac.nz  
Phone: (06) 350 5799 Ext. 2048

**Click to begin the On-line questionnaire**

This project has been evaluated by peer review and judged to be low risk. Consequently, It has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Sylvia Rumball, Assistant to the Vice-Chancellor (Ethics & Equity), telephone 06 350 5249, email [humanethicspn@massey.ac.nz](mailto:humanethicspn@massey.ac.nz).

## **DO AGE AND CULTURE INFLUENCE PERSONALITY?**

Dear Participant,

Thank you for completing the survey and getting this far.

If you would like a copy of the summary of the findings sent to you when the project is completed, please provide your email address here. This identifying data will be automatically removed and stored separately to the completed data. It will not be able to be linked in any way to the information you have provided in the questionnaire.

### **Identifying information for Receipt of Summary of Findings**

E-mail

Submit this information

Clear your answers

Thank you very much

Gillian Craven  
PhD Candidate  
School of Psychology  
Massey University  
Private Bag 11 222  
Palmerston North  
New Zealand  
Email: G.Craven@massey.ac.nz  
Phone: (06) 350 5799 Ext. 2048

## APPENDIX J

### STUDENT SAMPLE

#### SOCIOTROPY/AUTONOMY FOUR COMPONENT SOLUTION

Table J.1A  
*Component 1: Sociotropy*

Items	Item Total Correlations	Factor Loadings
2. I am afraid of hurting other people's feelings.	.50	.68
32. I get uncomfortable around a person who clearly does not like me.	.60	.67
20. I censor what I say because I am concerned that the other person may disapprove or disagree with me.	.46	.65
1. It is important to be liked and approved of by others.	.57	.64
19. I find it difficult to say "no" to people.	.40	.61
7. When I am with other people I look for signs of whether or not they like being with me.	.57	.60
38. I am more apologetic than I need to be.	.45	.59
29. I am uneasy when I cannot tell whether or not someone I've met likes me.	.64	.56
9. I am more concerned that people like me than I am about making important achievements.	.38	.55
30. If someone criticizes my appearance, I feel I am not attractive to other people.	.52	.54
40. If I think someone may be upset at me, I want to apologise.	.49	.51
28. If I think I am right about something, I feel comfortable expressing myself to others even if others don't like it.	-.21	-.43
18. If a goal is important to me I will pursue it even if it may make other people uncomfortable.	-.25	-.42
3. I do things that are not in my best interest in order to please others.	.26	.41

$N = 120$ ,  $\alpha = .75$

Table J.1B  
*Component 2: Independence*

Items	Item Total Correlations	Factor Loadings
23. I would rather take personal responsibility forgetting the job done than depend on someone else.	.46	.66
39. I prize being a unique individual more than being a member of a group.	.47	.63
27. When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get.	.48	.61
16. I set my own standards and goals for myself rather than accepting those of other people.	.46	.59
33. The possibility of being rejected by others for standing up for my rights would not stop me.	.50	.58
12. When I have a problem I like to go off on my own and think it through rather than being influenced by others.	.44	.58
25. It is important to me to be free and independent.	.48	.57
34. I need to be engaged in a challenging task in order to feel satisfied with my life.	.28	.42

$N = 120, \alpha = .75$

Table J.1C

*Component 3: Solitude/Interpersonal Sensitivity*

Items	Item Total Correlations	Factor Loadings
13. I find it hard to pay attention to a long conversation, even with friends.	.56	-.70
15. I am concerned that if people knew my faults or weaknesses they would not like me.	.41	-.61
26. Often I fail to consider the possible consequences of my actions.	.40	-.56
8. When visiting people I get fidgety when sitting around talking and would rather get up and do something.	.40	-.56
24. If a friend has not called for a while I get worried that he or she has forgotten me.	.34	-.52
21. I am usually the last person to hear that I've hurt someone by my actions.	.28	-.44
33. It is more important to be active and doing things than having close relations with other people.	.26	-.42
5. My close friends and family are too sensitive to what other people say.	.23	-.40

$N = 120, \alpha = .67$

Table J.ID  
*Component 4: Attachment*

Items	Item Total Correlations...	Factor Loadings
37. I like to be certain that there is somebody close I can contact in case something unpleasant happens to me.	.64	-.69
17. I worry that someone I love will die.	.57	-.67
14. Having close bonds with other people makes me feel secure.	.50	-.62
42. I find it difficult to be separated from people I love.	.50	-.62
35. I don't enjoy what I am doing unless I feel that someone in my life really cares about me.	.50	-.59
31. I tend to fret and worry over my personal problems.	.49	-.54
6. I get uncomfortable when I am not sure how I am expected to behave in the presence of other people.	.46	-.51
10. The worst part of growing old is being left alone.	.42	-.48
11. Being able to share experiences with other people makes them much more enjoyable for me.	.39	-.44
41. I become particularly annoyed when a task is not completed.	.33	-.44
22. I often find myself thinking about friends or family.	.31	-.38
4. I get lonely when I am at home by myself at night.	.26	-.35

$N = 120, \alpha = .80$

Table J.2  
*Correlations Between the Four Components of Sociotropy/Autonomy Among Students*

	Sociotropy	Attachment	Individual Achievement	Solitude
Sociotropy	1	.609**	-.130	.215*
Attachment		1	-.178	.172
Individual Achievement			1	.130
Solitude				1

*Note.* Spearman's Rank Order was used to analyse correlations.

\* $p < .05$ , \*\* $p < .01$

Table J.3  
*Means and Standard Deviations of the Four Components of Sociotropy/Autonomy Among Students*

	<i>M</i>	<i>SD</i>	<i>N</i>
Sociotropy			
Sociotropy	15.73	7.49	120
Attachment	16.07	8.66	120
Autonomy			
Independent Achievement	15.74	6.25	120
Solitude/Interpersonal Insensitivity	3.14	3.44	120