The Role of Emotional Awareness, and Positive and Negative Social Support in Predicting Well-Being in Recent Retirees

Amanda Beaman

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ABSTRACT

The role of emotional awareness in predicting positive and negative social support and well-being in recent retirees

Amanda Beaman, Ph.D.
Concordia University, 2008

Social support has been shown to enhance adjustment to retirement. Continuity theorists propose that retirees rely on internal dispositions and skills as a "continuity strategy" to maintain consistency in support and well-being despite disruptions to social networks, yet such skills have not been examined to date. Also, despite research indicating a disproportionate impact of negative support on well-being, retirement studies have relied heavily on measures of positive support. The present research employed structural equation modeling to assess "emotional awareness" as a putative socio-emotional skill underlying positive and negative support and well-being longitudinally, in recent retirees. The mediating role of perceived satisfaction with support was also examined. Two studies were employed to test three main hypotheses: 1) emotional awareness is a socio-emotional skill employed by retirees to maintain consistency in the frequency of positive and negative interactions; 2) negative interactions will have a stronger impact on well-being in retirement than positive interactions (i.e., a "negativity effect"), and 3) the impact of positive and negative interactions will be partially mediated by perceived satisfaction with support. In study 1, cross-sectional results indicated that emotional awareness facilitated positive, but did not mitigate negative interactions. Negative interactions had more potent effects on well-being than both positive interactions and perceived satisfaction with support, suggesting a strong "negativity effect". Also perceived satisfaction partially mediated the impact of positive and negative interactions

on well-being. Study 2 assessed the aforementioned relationships longitudinally. Emotional awareness facilitated positive interactions in early retirement, leading to improved satisfaction with support and well-being longitudinally. Negative interactions exerted more potent effects on well-being than positive support, suggesting a strong "negativity effect" in retirement longitudinally. Perceived satisfaction with support did not mediate the relationships between positive and negative support and well-being longitudinally. Implications for research and intervention are discussed.

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CONTRIBUTIONS OF AUTHORS

This Ph.D. thesis consists of a general introduction, two manuscripts (Study 1 and Study 2), and general conclusions:

Study 1: *Emotional awareness, social support, and well-being in retired men and women*

Study 2 : *A longitudinal study of emotional awareness, support continuity, and well-being in retired men and women*

Relative Contributions:

I proposed the dissertation topic and suggested the focus for each of the studies. I had a principal role in the definition of research problems, formulation of hypotheses, design and methodology, data collection, statistical analyses and interpretation, and writing of the manuscripts. Dr. Dolores Pushkar, my thesis supervisor, and Dr. Jamshid Etezadi provided direction throughout the entire thesis research and provided feedback on both of the manuscripts.

For Study 1 and Study 2, I selected the self-report measures. I, along with other students in the laboratory, tested participants at both time 1 and time 2 of the study. Research assistants in the laboratory also assisted with all of the data collection, and were responsible for the data entry. Dr. Francois Rousseau translated the LEAS responses of French participants. I coded all of the participant responses to the LEAS task according to the coding guidelines of Lane and Schwartz (1987). Sarah Etezadi acted as a second coder to attain inter-rater reliability. I was responsible for management of my data set, statistical analyses, interpretation of findings, and the writing of the manuscripts. Dr. Pushkar and Dr. Etezadi provided specific suggestions for carrying out the exploratory

and confirmatory analyses. In addition, I made revisions to the manuscript on the basis of feedback from Dr. Pushkar and Dr. Etezadi.

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CHAPTER ONE: GENERAL INTRODUCTION

Continuity Theory (CT) proposes that retirees rely upon internal dispositions and skills as a "continuity strategy" over time, to maintain preferred levels of social interactions despite disruptions in social networks caused by retirement. This allows retirees to adapt and express their identity appropriately across their post-employment life, and results in maintained well-being (Atchley, 1999). Indeed, existing retirement research shows that although retirees report pre-retirement anxiety about expected losses in their social network (Hayslip, Beyerlein, & Nichols, 1997), and reductions in objective levels of positive support, their perceptions about the quality of their support remain stable in retirement (Bosse, Aldwin, Levenson, Spiro, & Mroczek, 1993). Furthermore, qualitative aspects of social support are stronger predictors of well-being in retirement than the extent of support networks (Bosse et al., 1993; Szinovacz & Davey, 2004). Studies in support of Socioemotional Selectivity Theory (SST) are also consistent with these trends (Carstensen, Fung, & Charles, 2003). SST is a life-span developmental theory which posits that perceived limitations on life time remaining lead to shifts in motivation, such that attention is increasingly directed toward emotional goals with age. Accordingly, adults employ emotion-regulation strategies increasingly with age in order to engender positive, and minimize negative social experiences, thereby promoting continuity in well-being (Carstensen et al., 2003). These above findings are also in line with the broader research on well-being, which indicates that happiness and satisfaction are often maintained despite changes in life situation (Diener, Lucas, & Scollon, 2006).

The internal skills that may underlie retirees' ability to maintain social support have yet to be examined, and few studies have tested individual differences underlying

social support to date (Segrin & Taylor, 2007). Gender differences have previously been observed in late life social support, suggesting that older men receive support from less differentiated sources, report less intimate relationships with network members, and may be more vulnerable to network loss in retirement than women (Antonucci, 2001; Fernandez, Mutran, Reitzes, & Sudha, 1998; Gurung, Taylor, & Seeman, 2005). Although these differences are often hypothesized to result from women's higher levels of socio-emotional skill (for examples see Antonucci, 2001; Barbee, Cunningham, & Winstead, 1993; Fernandez et al., 1998; Krause & Shaw, 2002), these skills have not been assessed using objective measures in retirees. The extant studies of social processes in retirement have also relied heavily on male samples and have not consistently accounted for important demographic and work-related variables (e.g., Bosse et al., 1993).

In addition, retirement research has typically employed one-dimensional measures of exclusively positive aspects of social support, and either positive or negative aspects of well-being (e.g., Szinovacz & Davey, 2004; 2005). When positive aspects of well-being are assessed in retirement, often cognitive measures of life or retirement satisfaction are employed as indicators of well-being and affect is not measured (e.g., Smith & Moen, 2004). The lack of comprehensive measures of well-being may explain the mixed conclusions with respect to adaptation in retirement (for a review see Kim & Moen, 2001). It is argued that well-being is best represented by three components, including both positive and negative emotional states, and global cognitive judgements of life or domain satisfaction (Lucas, Diener, & Suh, 1996). These components have been shown to be characterized by different predictors, and therefore to represent distinct components

of well-being. For example, personal resources (i.e., health and income) have consistently shown a stronger influence on global judgements of life satisfaction compared to their influence on affect (Diener et al., 2006). The present research will examine whether retirees rely on socio-emotional skills reflecting a putative "continuity strategy". Socio-emotional skills will be assessed as a factor underlying positive and negative support, and both affective and cognitive well-being longitudinally, in male and female retirees, after controlling for the confounding impact of demographic and work-related variables. The following review of the literature will outline the rationale for the hypotheses and the measures employed.

Socio-emotional Skills, Social Support and Well-Being

Socio-emotional skills have been found to predict psychological and physical health, psychopathology, loneliness, depression, and relational satisfaction across the lifespan (Argyle & Lu, 1990; Gray, Ventis, & Hayslip, 1992; Riggio, Throckmorton, & DePaola, 1990; Riggio, Watring, & Throckmorton, 1993; Segrin & Flora, 2000). This research has defined skills variably and has used self-report measures, making the skills that are the most salient predictors of well-being unclear (Segrin & Taylor, 2007; Spitzberg, 2003). Also, few studies have employed mediational models to test possible factors, such as social support, that link socio-emotional skills to psychological well-being (Segrin & Taylor, 2007). Finally, there is a paucity of research regarding older adults' social skills compared to studies of adults in earlier developmental stages (Pushkar & Arbuckle, 1998). Studies examining social skills in exclusively *healthy* older adults are even fewer in number. Nonetheless, a brief review of the different skills that

have been studied in terms of their impact on the social support networks of young and old adults will provide a context for the constructs employed in the present study.

Social Skills as a Predictor of Social Support

Research has shown positive correlations between self-reported social skills and the attainment of beneficial social support in young and older samples during periods of transition (see Flora & Segrin, 1999; Riggio et al., 1993; Sarason, Sarason, Hacker, & Basham, 1985). Much of the research with older samples has been carried out with caregivers of family members with age-related cognitive decline. A self-report study of caregivers found that those who were assertive and maintained balanced levels of reciprocity in their relationships (i.e., keeping track of help given so as not to burden others), indicated greater perceived social support (Rapp, Shumaker, Schmidt, Naughton, & Anderson, 1998). This relationship held after the health and age of the caregiver, and characteristics of the care recipient were controlled. Thus, the caregiver's ability to empathize with the needs of others in their social network was an important predictor of the size of their network.

Further evidence for the role of social skills in the attainment and maintenance of social support comes indirectly from intervention studies, though very few studies have examined older adults (e.g., Hogan, Linden, & Najarian, 2002). Of the few studies with older adults, interventions for caregivers of family members with age-related cognitive decline indicate that modifying processes related to perceptions of social support can lead to improved adjustment. Compared to controls, caregivers of relatives with Alzheimer's disease who received family and individual counseling, attended weekly support groups, and had access to telephone support evidenced lower levels of depression at one-year

follow-up (Roth et al, 2005). It was shown that although the intervention improved the overall amount, frequency, and satisfaction with support, the latter variable was the most important as it completely mediated the relationship between the intervention and reduced depression. Although the specific socio-emotional mechanisms modified by the intervention were not tested directly in this study, previous research has shown that such interventions have their effects through improved communication and improved identification of one's needs (Mittelman et al., 1997).

Other clues about possible mechanisms come from an intervention by Brand, Lakey, and Berman (1995) which focused on improving divorced and widowed adults' perceived support using cognitive techniques for conflict resolution, assertiveness, responding to criticism, expressing negative affect appropriately, and re-conceptualizing negative thoughts and feelings in close relationships. As a result of this intervention, perceived social support from family members but not friends increased, and changes in self-cognition were greater than the changes observed in perceived support. Thus, the focus of this intervention on reducing the potential for negative interactions may have improved perceptions of social support.

Emotional Skills, Social Skills, and Social Support

The limited evidence presented thus far suggests that social skills may be an important predictor of beneficial social support for older adults. It also highlights the many permutations and combinations of measures used to assess this construct. Given the sheer number that exist and the positive relationships between them, it is very difficult to determine which measures and skills best represent abilities that are *fundamental* to effective social functioning (Ciarrochi, Caputi, & Mayer, 2003), and those skills that do

not vary with social context or mood (Ciarrochi et al., 2003). To address this issue, comprehensive, objective measures of social skills have often included constructs of emotional as well as social skills (Mayer, Caruso, & Salovey, 1999), or others have argued that emotional skills stand on their own as essential components of social skills (Lane, 2000). Indeed, the Brand et al. (1995) study which used therapeutic techniques to help individuals re-conceptualize their negative emotions, targeted many aspects of emotional skills in order to improve perceptions of social support.

Evolutionary theorists suggest that emotions and their expression have provided powerful evolutionary advantages in terms of their social functions (Anderson & Guerrero, 1998; see Reis, Collins, & Berscheid, 2000 for a review). For example, the appropriate expression of emotions (e.g., appeasement, harmony) act to minimize rejection by others, help one avoid attack, and promote cooperative interactions, all of which confer a reproductive advantage (Anderson & Guerrero, 1998). Furthermore, it has been proposed that both individual and group survival were facilitated by members who were emotionally attuned to the social needs of the group, therefore, those who possessed skills in sending and receiving emotional messages enhanced the group's overall fitness (Anderson & Guerrero, 1998). Thus, emotional skills have been proposed as necessary for survival-enhancing social skills. One measure, *emotional awareness,* is argued to be fundamental to the development of skills that predict social competence, social support, and subsequently better health outcomes (Lane, 2000).

Emotional Awareness

Emotion has been defined as encompassing cognitive, behavioural, and physiological components. It is argued that an emotional response can be

"desynchronous", that is, manifest in one component but not another (for a review see Kihlstrom, Mulvaney, Tobias, & Tobis, 2000). For example, the subjective component of an emotion (i.e., conscious feeling state) can be absent while physiological components are present (e.g., increased heart rate), as has been commonly observed in anxiety disorders (Kihlstrom et al., 2000). Numerous terms have been employed to describe this apparent lack of awareness of emotion including "repression" or "denial", and this process has been of interest to theorists and researchers over many decades given its associations with medical problems and psychopathology (for a review see Lane, 2008).

Lane and Schwartz (1987) developed the construct of emotional awareness, defined as the skill to recognize and describe emotion in oneself and others. This skill is proposed to undergo a developmental process similar to what Piaget outlined for cognition in general, thus, it consists of five levels that are hierarchically related. It is argued that lower levels of emotional awareness are associated with unconscious or implicit emotional processing styles, while higher levels of awareness reflect more conscious, or explicit processing styles. For example, those with lower levels of awareness tend to describe their own and others' emotions in terms of implicit bodily sensations (e.g., tired) and action tendencies (e.g., "I'd feel like hitting something"), which occur automatically, and do not require conscious processing to be executed efficiently. On the other hand, those with higher levels of emotional awareness tend to experience emotions consciously, and describe them at different levels of complexity (e.g., "I'd feel happy for her but disappointed in myself"). Individual differences in emotional awareness are assumed to reflect variations in the degree of differentiation and

integration of the schemata used to process emotional information, which is proposed to be fundamental to emotion regulation.

The construct validity of emotional awareness is supported by studies that relate it to cognitive-developmental measures, impulse control, openness to feelings, empathy and emotion recognition (for a review see Lane, 2008). Also, meaningful clinical correlations have been reported indicating that lower levels of emotional awareness are associated with disorganized attachment style, somatoform disorders, and eating disorders (Lane, 2008). These findings are in line with the reasoning of Lane and Schwartz (1987) that lower levels of this skill are associated with the tendency to experience emotions implicitly rather than explicitly, such as distress in the form of bodily sensations or somatic complaints. Positron emission tomography studies have shown that when processing emotional stimuli, individual differences in blood flow to the anterior cingulated cortex is associated with level of emotional awareness, suggesting that those high in awareness do indeed process emotional information differently (Lane, Reiman, Axelrod, Yun, Holmes, & Schwartz, 1998). Emotional awareness does not correlate significantly with measures of anxiety or depression, highlighting its divergence from the construct of emotional intensity (Lane, 2000). Furthermore, individuals high in emotional awareness are less likely to show mood-congruent biases (i.e., a bad mood leads to negative judgments), which suggests that they are able to identify how they are feeling independent of mood (Ciarrochi et al., 2003).

Studies of emotional awareness in old and young adults suggest that it may also be a meaningful variable to investigate in terms of social support and adjustment to retirement. For example, it has been found that increased understanding of others'

emotions was associated with greater life satisfaction in older adults (Lyster, 1996). Gender differences in this skill have also been shown to occur across the lifespan, consistent with theories which argue that gender differences in socialization underlie women's superior socio-emotional skills, and better social support (Conway, 2000; Lane, Sechrest, & Riedel, 1998). As outlined earlier, men have evidenced smaller social networks, less intimate relationships with network members, greater received and initiated negative interactions, and may be particularly vulnerable to network loss in retirement (Antonuucci, 2001; Boerner, Reinhardt, Raykov, & Horowitz, 2004; Fernandez et al.,1998).

A study by (Ciarrochi et al., 2003) with undergraduate students compared one social, and four emotional skill measures in terms of their prediction of stress and psychological adjustment variables (e.g., hopelessness, life satisfaction, social support, depression). The measures were chosen based on their validity, and included assessments of perceptions of social problem solving, emotional control, levels of emotional awareness, rumination, and alexithymia (i.e., difficulty identifying and describing emotions). Level of emotional awareness was assessed using a performance measure while the remaining measures were self-report. The self-report social and emotional skill measures showed moderate correlations with each other and with the self-report, psychological adjustment variables (i.e., depression, anxiety, stress, life satisfaction). Level of emotional awareness was not significantly associated with any of the other skill measures and explained unique variance in social support but not the other adjustment variables. In fact, it was identified as one of the two strongest predictors of the amount of social support received, after controlling for stressful life events. Other studies have also

shown its independence of negative affect (Lane, 2008). These findings add support the conceptualization of emotional awareness as an ability that is independent of mood and is distinctly related to social support.

The unique variance predicted by emotional awareness in social support suggests that those who are more aware of their emotions may be better at providing support to others and may therefore receive more in return, or they may also be more likely to seek support from others (Ciarrochi et al., 2003). Indeed, adolescents who are low in emotional awareness are less likely to seek help from non-professional sources and have higher intentions of refusing help from both professionals and non-professionals than those high in emotional awareness (Ciarrochi, Deane, Wilson, & Rickwood, 2002). While these studies indicate that emotional awareness is uniquely related to a broad measure of social support, more research is needed regarding the particular aspects of social support that may be dependent on this skill. For example, does a lack of emotional awareness lead to more negative and fewer positive interactions with the social support network, and therefore poor adjustment in retirement? Lane (2000) argues that an important aspect of social competence is avoiding the creation of negative responses and enhancing positive responses in others, which is facilitated by one's active monitoring of the emotional responses of the self and others. A review of the social support literature will highlight the specific and important role that emotional awareness may play in increasing beneficial support.

What Aspects of Social Support Are Most Important for Older Adults?

Cohen and Wills (1985) identified four support resources that act to mediate between stress and health and well-being, including emotional or esteem support,

informational support, companionship, and instrumental support. Emotional support is proposed to have positive effects by affirming the receiver's self-worth through the enhancement of their self-esteem. Informational support helps the receiver define and cope with problematic events (e.g., advice). Companionship reduces stress by fulfilling the need for contact with others, by distracting one from worrying about stressors, or by facilitating positive affect. Finally, instrumental support involves the provision of needed services, and may directly resolve stressful problems or may alleviate stress indirectly by freeing up time for other activities. Much of the research has focused on positive support rather than an explicit focus on the adverse consequences of negative support, namely, negative emotional feedback (e.g., criticism), a lack of companionship, and information or instrumental support that is unhelpful or unwanted (Coyne & Downey, 1991; Rook, 1984). Indeed, social exchange theorists have emphasized the complex nature of social relationships, arguing that they are often associated with costs as well as rewards (Homans, 1974; Rook, 1984). For example, instrumental support has been shown to decrease the impact of stress on well-being but has also been associated with increased levels of negative interaction (Fukukawa et al., 2004). These findings highlight the need to assess the effects of positive and negative aspects of the four types of support relative to one another.

Social support measures are broadly categorized as those that assess retirees' perceptions of the amount of support they receive (e.g., frequency of support from others), or that assess subjective perceptions of the quality of social support (e.g., perceived availability or satisfaction). Defined in this positive manner, both types of social support have shown positive relationships with well-being in retirement across

industrialized nations (Desrochers, Lapierre, & Alain, 2002; Fouquereau, Fernandez, Fonesca, Paul, & Uotinen, 2005; Szinovacz & Washo, 1992; Mor-Barak, Scharlach, Lourdes, & Sokolov, 1993); although, most studies have employed one-dimensional measures of well-being. Research has also shown that amount of support weakly predicts greater perceived support, and that the latter is a stronger predictor of greater well-being in older adults (Antonucci, 2001; Sarason, Shearin, Pierce, & Sarason, 1987). When standardized measures of the frequency of *both* positive and negative interactions are employed, negative interactions strongly predict less perceived satisfaction with support, and also have negative effects on well-being comparable to the positive impact of perceived satisfaction with support (Krause, 1995; Finch, Okun, Pool, & Ruehlman, 1999).

The Relative Impact of Positive and Negative Aspects of Support on Well-Being

Rook (1984) was instrumental in advancing the hypothesis that negative support has a detrimental impact on older adults' well-being that outweighs the positive impact of social support. Rook (2001) showed that although older adults exhibited less frequent negative compared to positive interactions, negative support showed strong associations with daily measures of both positive and negative mood whereas positive interactions were only related to positive mood. Also, when these variables were examined over a one-year period, increased levels of daily negative interactions were shown to predict increased levels of depressive symptoms whereas changes in positive interactions had no such long-term effects. Other studies have since shown similar effects (Kim & Nessleroade, 2003; Newsom, Nishishiba, Rook, & Morgan, 2003). Although, when satisfaction with support was examined in the sample employed by Rook (2001), it was

found that satisfaction with the social network reduced reactivity (i.e., changes in daily mood) to negative social exchanges over a one-year period, and reduced exposure (i.e., number of negative exchanges) to negative exchanges with others (Rook, 2003). Thus, it was argued that one's perceptions of the satisfactoriness of their social support network may attenuate the detrimental impact of frequent negative exchanges on psychological distress, and may reduce the frequency of negative interactions.

Competing models exist concerning the direction of the relationships between interactions, perceived quality of support, and well-being. One view conceptualizes social interactions as interpersonal events, and proposes that their influence on well-being is mediated by contextual factors such as perceived satisfaction with support (e.g., Kim-Prieto, Diener, Tamir, Scollon, & Diener, 2005; Newsom, Rook, Nishishiba, Sorkin, & Mahan, 2005). This view is consistent with the hypotheses of the present research, and the predictions of SST that older adults use cognitive strategies to minimize the impact of negative social events, leading to stable well-being. Another view argues that perceptions of satisfaction with support are stable cognitions that predetermine how individual interactions are interpreted, leading to direct impacts on well-being (see Lakey, Drew, Anan, Sirl, & Butler, 2004). Research that combines measures of the perceived frequency of positive and negative interactions with assessments of perceived satisfaction with support is needed to understand retirees' experiences in the context of recent theories of social support and aging. The present study will test these alternative theories employing a longitudinal model.

Social Support and Retirement

The research outlined thus far speaks to the complexity of social relationships and their potentially harmful and beneficial effects during periods of transition. Retirement has been identified as a stressful life transition (Theriault, 1994) and for a varying but sizeable percentage of retirees (i.e., approximately one third), it may be characterized by increased levels of stress, anxiety and depression (Buxton, Singleton, & Melzer, 2005; Bosse, Aldwin, Levenson, & Ekerdt, 1987; Braithwaite & Gibson, 1987; van Solinge & Henkens, 2005), though much of the research has also shown positive adjustment during the retirement years (e.g., Drentea, 2002; Mattila, Joukamaa, & Salokangas, 1989). Indeed, Atchley (2003) argues that retirement is a dynamic process to which the majority of older adults adjust by adapting themselves to the changing circumstances over time. As outlined earlier, continuity theorists propose that adjustment to retirement requires older adults to maintain their values, self-concept, contact with family and friends, and lifestyle; and that individuals strive to maintain continuity both internally (i.e., affect, dispositions, and skills) and externally (i.e., social environments, roles, and relationships).

Recently, the factors that influence adjustment in retirement were broadly defined into four categories including sociodemographic factors (e.g., age, gender, marital and occupational status), individual characteristics (e.g., personality factors, health status, and acceptance of retiree role), work-related factors (e.g., reasons for retirement and retirement preparation), and finally, broader cultural, social, and economic factors (e.g., advertising campaigns) (Fouquereau et al., 2005). Some of the studies that have investigated the impact of these factors on adjustment to retirement have also assessed the relative impact of social support. No one study has simultaneously assessed

comparable measures of both positive *and* negative aspects of support, or underlying emotional skills, although several studies have examined the impact of conflict in the marital relationship on adjustment to retirement. A brief overview of the factors that influence retirement adjustment in addition to social support will provide a rationale for the variables that were controlled in the present study. Also, research examining the impact of qualitative aspects of the marital relationship on retirement will provide a context for hypotheses about the influence of both positive and negative support.

Examining the Predictors of Retirement Adjustment Relative to Social Support

Cross-Sectional Studies

Cross-sectional research that has included measures of social support has examined a number of different predictors in a number of very specific populations. A recent cross-cultural study found that after controlling for age, gender, retirement time, previous occupational status, marital status and geographic region (rural vs. urban), retirees from six European Union countries showed similarities in terms of predictors of retirement satisfaction (Fouquereau et al., 2005). For the majority, satisfaction with health and financial resources was the most important predictor, followed by anticipated satisfaction with retirement, satisfaction with marriage and family, and increased freedom and control. The results suggest that perceptions of social support are universally important for adjustment after controlling for more traditional factors such as health and finance. Another study of pensioners with disabilities found that better health, time for leisure activities and contact with both family and friends predicted higher quality of life in retirement (Eden, Ejlertsson, & Petersson, 1999). Demographic variables, work-related variables and amount of time retired were not controlled in this study, making it

unclear whether social support accounted for unique variance. Similarly, a study with retired professional, married or widowed women showed that extant discrepancies between the desired frequency and diversity of social contacts and the actual frequency and diversity, predicted poorer satisfaction with the timing of their retirement and with retirement leisure activities (Reeves & Darville, 1995). This study only employed women who were completely retired, had university degrees, and did not control for the number of years retired, or whether they had prepared for retirement despite the differences that were observed on these variables. Furthermore, the use of varied outcome measures across these studies makes it difficult to draw general conclusions about the impact of different variables on adjustment.

A recent cross-sectional study of French Canadian retirees improved upon previous research through an examination of a multitude of demographic, social and work-related factors in an attempt to find those that were the strongest predictors of satisfaction with life and retirement (Desrochers, Lapierre, & Alain, 2002). Greater life satisfaction was most strongly predicted by the combination of greater satisfaction with family relationships, greater satisfaction with leaving work, having an greater ability to pursue interests, and higher levels of appreciation felt by the employer. Retirement satisfaction was most strongly predicted by greater wealth, more positive attitude toward retirement, greater satisfaction with leaving work, higher levels of perceived recognition for work, greater pursuit of interests, and feeling more useful. When gender differences were examined, more friendships emerged as an important additional predictor of retirement satisfaction for men, and relationships with family dropped out as a predictor for men's life satisfaction. Thus, overall it appears that family and friend networks are

important contributors to life and retirement satisfaction when measured cross-sectionally, controlling for other important demographic and work-related variables. The results indicate that the importance of friends versus family may depend upon gender and which type of satisfaction is being assessed, but it is not clear whether these factors remain important over time. Furthermore, this study did not employ measures of positive and negative affect, making it an incomplete assessment of well-being in retirement.

Cross-sectional studies have examined the interrelationship between post-retirement work and social support, and its effect on well-being in retirement. In a study of employment in the retirement years it was found that retirees who continued to work after retirement were more likely than those who did not work to report larger social networks and therefore, better health (Mor-Barak et al., 1993). Thus, the relationship between employment and self-reported health was mediated by social support after controlling for age, gender, education and health problems. Another study found that individuals who sought employment in retirement for social reasons compared to other reasons (i.e., generativity, financial, or personal) had less positive attitudes toward retirement after controlling for age, income and general levels of well-being. The latter study included mostly male participants who were employees at a university. Despite the restricted sample in the latter study, the combined results of these two studies are in line with research that shows that older workers who are more anxious about losing social ties with retirement are less likely to experience positive adjustment to retirement (Gall & Evans, 2000; van Solinge & Henkens, 2005). Thus, since the social network associated with work may be very important for some retirees, continuing to work may facilitate

their adjustment to retirement. Therefore, post-retirement work is an important variable to measure and control in future analyses in order to best understand the unique contributions of social support to retirement adjustment.

Longitudinal Studies

Longitudinal studies that have examined social support and well-being in retirement have also attempted to understand how different factors may influence adjustment to retirement over time. An early study found that for older adults who had been retired only 1 to 3 years, the strongest predictors of adjustment were higher education, better health, and fewer stressful life events before and during retirement. Those who had been retired for 4 or 5 years were more likely to experience better adjustment to retirement if they had better health, greater incomes, larger households and visited friends more often (Szinovacz & Washo, 1992). These results held after controlling for the number of stressful events that had occurred before and during retirement, as well as a multitude of sociodemographic variables. This study suggests that friendships may become a stronger predictor of adjustment over time, over and above demographic variables. Similarly, a recent study hypothesized that retirees who identified strongly with their role as a friend and who were married or were a parent, would experience better adjustment to retirement than those without since the roles they hold in social domains may fill the gap left by the lost worker role (Reitzes & Mutran, 2004). It was found that greater self-esteem, higher levels of identity as a friend, and eligibility for a pension predicted adjustment to retirement at all three time-points. Marital status became important later in retirement in that being married predicted more positive attitudes to retirement at 24 months. While this study suggests that friendships

and family are important during the retirement transition relative to other factors, measures of quantity and satisfaction with support were not administered making it difficult to compare this study to previous research. Furthermore, negative aspects of relationships were not assessed. Nonetheless, the consistency with which friend identity and contact with friends has predicted adjustment in cross-sectional and longitudinal research relative to other variables supports the notion that this type of social support may be particularly important for retirees and should be included in any measurement of social support.

Quality of Interactions with Social Network Members and Retirement Adjustment

Research that has measured social support in terms of the quality of social relationships and their impact on retirement adjustment has mainly focused on qualities of the marital relationship. Despite its limited focus, this research offers some insight into the impact that positive *and* negative aspects of relationships may have on adjustment to retirement in relation to the other factors described above. Indeed, a cross-sectional study of retired, mostly male physicians found that life satisfaction in retirement was significantly more likely for those who were younger and retired longer, and had experienced increased health, optimism, travel, and an improved relationship with their spouse since retirement (Guerriero, Perkins, Damush, & Hendrie, 2003). A recent longitudinal study found that after controlling for various socio-demographic and retirement-related variables, not retiring at the same time as one's spouse increased depression in retirement for both men and women. Importantly, men's but not women's depression levels were reduced if they enjoyed the time they spent with their spouse in retirement (see Szinovacz et al., 2004). In addition, a 5-year longitudinal study that

examined the impact of pre-retirement emotional reactions (i.e., subjective, behavioral and physiological) to discussing marital conflict found that husbands who were physiologically relaxed and affectively positive during the discussion of marital conflicts were better adjusted in retirement several years later (Kupperbusch, Levenson, & Ebling, 2003). No similar effect was found for women in this study.

While the three studies reviewed above underscore the potential importance of negative qualities of the marital relationship to men in terms of predicting adjustment, an earlier longitudinal study that examined the impact of marital quality (i.e., marital satisfaction and marital conflict) on well-being over the retirement transition (i.e., 2 years) found different results (Kim & Moen, 2002). Women's psychological well-being in retirement was predicted by the combined effects of declines in subjective health and higher levels of marital quality and personal control, but the duration retired and spouse's retirement had no effect. On the other hand, men who were retired longer tended to exhibit less well-being overall, but once income, subjective health, and personal control were accounted for, the effect of time retired was reduced. No effects of marital quality were observed for men in this study. This suggests that negative aspects of the marital relationship were less important to the well-being of men compared to women. The mixed results across the studies may have occurred due to the lack of direct measurement of negative aspects of the marital relationship (i.e., amount of conflict) in all but one of the studies. Also, none of these studies examined the relative importance of positive versus negative aspects of the marriage, and other relationships in predicting retirement adjustment using comparable measures of positive and negative support. The current

research will examine negative and positive aspects of social relationships directly in order to elucidate whether they have a differential effect on adjustment.

The Current Research

The main goals of the present research are to 1) examine the socio-emotional skill of emotional awareness, to determine whether it is associated with the frequency of positive and negative social interactions in male and female retirees; 2) to assess for a "negativity effect" in early retirement; and 3) to test whether perceptions of quality of support partially mediate the impact of positive and negative interactions on well-being in retirees. It was hypothesized that emotional awareness is an internal skill that would be relied upon as a continuity strategy, and would therefore be positively related to the frequency of positive, and negatively related to the frequency of negative interactions. It was also hypothesized that the relationship between gender and interactions would be mediated by emotional awareness, such that retired women would show higher levels of emotional awareness than men. It was predicted that the relative impact of positive and negative interactions on well-being would be at least partially mediated by perceptions of the availability and satisfaction with the support network. For example, retirees may consider a negative interaction in light of their overall satisfaction with their support network in order to minimize its negative impact on well-being. This hypothesis is in line with SST, and the notion that older adults employ cognitive strategies to lessen the impact of negative experiences. Given the research indicating potent, direct effects for negative interactions, it was also predicted that some negative interactions would be resistant to cognitive strategies, and thus, would be directly related to well-being (i.e., a "negativity effect"). Finally, it was expected that emotional awareness would have a

positive association with duration retired. Thus, as work-related support is increasingly lost with time in early retirement, retirees were presumed to become more motivated to draw upon their emotional awareness skills to facilitate new positive interactions and reduce negative interactions. The proposed relationships were assessed first, using cross-sectional data in study 1. The results of study 1 provided a basis for refining predictions about longitudinal relationships between the study variables, which were examined in study 2. These refined hypotheses are outlined in the "linking text" section between study 1 and study 2. This document includes two manuscripts, one each for studies 1 and 2, and concludes with a general summary and conclusion.

CHAPTER TWO: STUDY ONE

Emotional Awareness, Social Support, and Well-Being in Retired Men and Women

Introduction

It has been shown that although retirees report pre-retirement anxiety about expected losses in their social network (Hayslip, Beyerlein, & Nichols, 1997) and reductions in objective levels of support, their perceptions of support quality remain stable in retirement (Bosse, Aldwin, Levenson, Spiro, & Mroczek, 1993). Qualitative aspects of social support are also stronger predictors of adjustment than the extent of support networks (Szinovacz & Davey, 2004). Proponents of Continuity Theory argue that older adults use "continuity strategies" to maintain high levels of consistency in social relationships despite changes to social networks associated with the retirement transition (Atchley, 1999). Similarly, Socio-emotional Selectivity Theory (SST) predicts that as lifetime remaining becomes more salient, older adults devise strategies to focus their efforts on positive rather than negative aspects of support networks in order to maintain well-being (Carstensen, Fung, Charles, 2003). Retirement researchers have not yet assessed the relative impact of positive and negative aspects of support on well-being. They have also defined the latter construct in a one-dimensional manner (e.g., Szinovacz & Davey, 2004), and thus, have failed to acknowledge research showing that well-being is most accurately measured employing three components including positive affect, negative affect, and cognitive judgments of life satisfaction (Lucas, Diener, & Suh, 1996). Finally, specific "continuity strategies", such as socio-emotional skills that may promote a balance of positive and negative support, have yet to be studied in retirees.

The lack of research examining socio-emotional skills in retirement may be due to the large number of socio-emotional skill constructs, and yet a scarcity of objective measures that are applicable to older adults (Pushkar & Arbuckle, 1998). The "emotional awareness" construct is defined as the cognitive ability to be aware of emotions in the self and others, and is proposed to be fundamental to other socio-emotional skills (Lane, 2000). Furthermore, this construct is measured using a performance test, rather than self-report measures, and has been shown to be reliable in older samples (Pushkar Gold, Franz, Reis, & Senneville, 1994). It also exhibits divergence from self-report measures of other socio-emotional skills, and is independent from mood effects (Ciarrochi, Caputi, & Mayer, 2003; Ciarrochi, Scott, Deane, & Heaven, 2003). Finally, emotional awareness predicts the intention to seek help from social network members and the perceived availability of support (Ciarrochi, Deane, Wilson, & Rickwood, 2002; Ciarrochi et al., 2003), suggesting it is uniquely linked to social support, and may help older adults maintain continuity in their social networks.

Studies indicate that being male is related to lower emotional awareness in one's self and others across the lifespan (Bajgar, Ciarrochi, Lane, & Deane, 2005; Ciarrochi et al., 2005; Conway, 2000; Lane, Sechrest, & Riedel, 1998; Pushkar Gold et al., 1994). Older men also receive support from less differentiated sources, report less intimate relationships with network members, and may be more vulnerable to network loss in retirement than women (Antonucci, 2001; Fernandez, Mutran, Reitzes, & Sudha, 1998; Gurung, Taylor, & Seeman, 2005). These differences are often hypothesized to reflect women's higher levels of socio-emotional skills, which allow them to attain needed support from others, and maintain closer relationships into later life compared to men

(Antonucci, 2001; Barbee et al., 1993; Fernandez et al., 1998; Krause & Shaw, 2002). To date, gender differences in retirees' socio-emotional skills such as emotional awareness, and their relationship to social support and retirement adjustment have not been investigated.

Traditionally, social support measures have been broadly categorized as those that assess perceptions of the amount or availability of positive support, or that measure perceptions of the quality of social support (i.e., satisfaction). Both constructs show a positive relationship with well-being in retirement across industrialized nations, although the latter is a stronger predictor of well-being in older adults and is thus frequently employed as an indicator of support (Antonucci, 2001; Desrochers, Lapierre, & Alain, 2002; Fouquereau, Fernandez, Fonesca, Paul, & Uotinen, 2005; Mor-Barak, Scharlach, Lourdes, & Sokolov, 1993; Sarason, Shearin, Pierce, & Sarason, 1987). Although, recent research employing standardized measures of the frequency of positive and negative interactions has shown that negative interactions with members of the social network have a more potent impact on older adults' well-being than positive interactions (Newsom, Nishishiba, Rook, & Morgan, 2003; Rook, 2001); and have comparable effects to that of perceptions of support quality on well-being (Finch, Okun, Pool, & Ruehlman, 1999). These "negativity effects" exist despite the fact that negative interactions occur less frequently than positive interactions with age (Newsom et al., 2003; Rook, 2001). This trend is in agreement with SST, which presumes that age-related reductions in negative interactions reflects a "pruning" process whereby older adults eliminate poor quality support (Carstensen et al., 2003).

The Current Study

To date, few studies have employed standardized measures of positive and negative interactions in addition to traditional measures of perceived support to assess their relative associations with well-being. Research that combines traditional and newer concepts of support is needed to understand retirees' experiences in the context of recent theories of social support and aging. It was predicted in the present study that the relative impact of positive and negative interactions on well-being would be at least partially dependent on perceptions of the availability and satisfaction with the support network. For example, a negative interaction may have less consequence for well-being when one is very satisfied overall with their network, and more consequence when their network is perceived to be poor overall. Rook (2003) found that satisfaction with friendships reduced reactivity (i.e., reductions in daily mood) and exposure (i.e., number of negative exchanges) to negative exchanges with others over a one-year period. These findings are in line with SST, and the notion that older adults employ cognitive strategies to lessen the impact of negative experiences. Given the research that also shows potent, direct effects for negative interactions, it was hypothesized that some negative interactions would be resistant to such cognitive strategies, and thus, directly related to well-being (i.e., a "negativity effect").

The main goals of the present research are to 1) examine the socio-emotional skill of emotional awareness, to determine whether it is differentially associated with positive and negative social interactions for male and female retirees; 2) to assess for a "negativity effect" in early retirement; and 3) to test whether perceptions of availability and quality of support partially mediate the impact of negative interactions on well-being in retirees. A multi-component measure of well-being was employed as an outcome measure (Lucas

et al., 1996; Diener, Lucas, & Scollon, 2006). As depicted in Figure 1, it was hypothesized that emotional awareness would be employed as a "continuity strategy", and would therefore be related to the frequency of positive and negative interactions. It was also predicted that the relationship between gender and interactions would be mediated by emotional awareness, such that retired women would show higher levels of emotional awareness than men. Both positive and negative interactions were hypothesized to be indirectly related to well-being through perceived support. A "negativity effect" was also predicted, whereby negative interactions would exert a direct influence on well-being. Finally, it was expected that emotional awareness would have a positive association with duration retired. Thus, as work-related support is increasingly lost with time in early retirement, retirees were presumed to increasingly draw upon their emotional awareness skills to build new relationships. Given that the data is cross-sectional, this study was undertaken to test the aforementioned relationships between the variables at one point in time, the results of which will provide a firm basis for predictions about possible longitudinal relationships.

Method

Participants and Procedure

Four hundred and forty-seven retirees were recruited through a large provincial corporation, from retirees' associations, or from advertisements in French and English community newspapers to participate in a study on the transition to retirement. Participants were screened to ensure that they had retired from at least 20 years of full-time employment, were not presently employed more than 10 hours a week, and spoke either English or French fluently. Small groups of participants, with a maximum of six,

completed questionnaires at Concordia University in either English or French. The current study examined cross-sectional data for those who were retired for two or fewer years (N=327) in order to assess the experiences of relatively recent retirees, as it was presumed that early retirement would be associated with greater readjustments to the support network. Approximately half of the retirees (i.e., 47.4 percent) had been retired for a year or less.

Measures

Demographic Variables

The average age of participants was 59 years (SD=5.43), 46% of the participants were male, and 61.6% of the sample was married. The average number of years of education was 14.94 (SD = 2.48) and 86% of the participants rated their financial situation as the same (25%) or better (61%) than that of most other people their age. A one-item measure from the Tri-Scales was used to assess subjective health (Schonfield & Hooper, 1973). Participants rated their current health status compared to the average Canadian their age on a scale from 1 (Extremely Ill) to 9 (Extremely Vigorous). Approximately 8% of the participants described themselves as slightly or quite ill, 13% were neutral, 15% slightly vigorous, 29% vigorous, 23% quite vigorous, and 9% extremely vigorous. The average number of years worked was 35 (SD = 7.2). Eighteen percent of retirees reported difficulty adjusting during the first few months of retirement.

Levels of Emotional Awareness Scale (LEAS)

Emotional awareness was measured by the Level of Emotional Awareness Scale (LEAS) (Lane & Schwartz, 1987). This performance test requires participants to describe

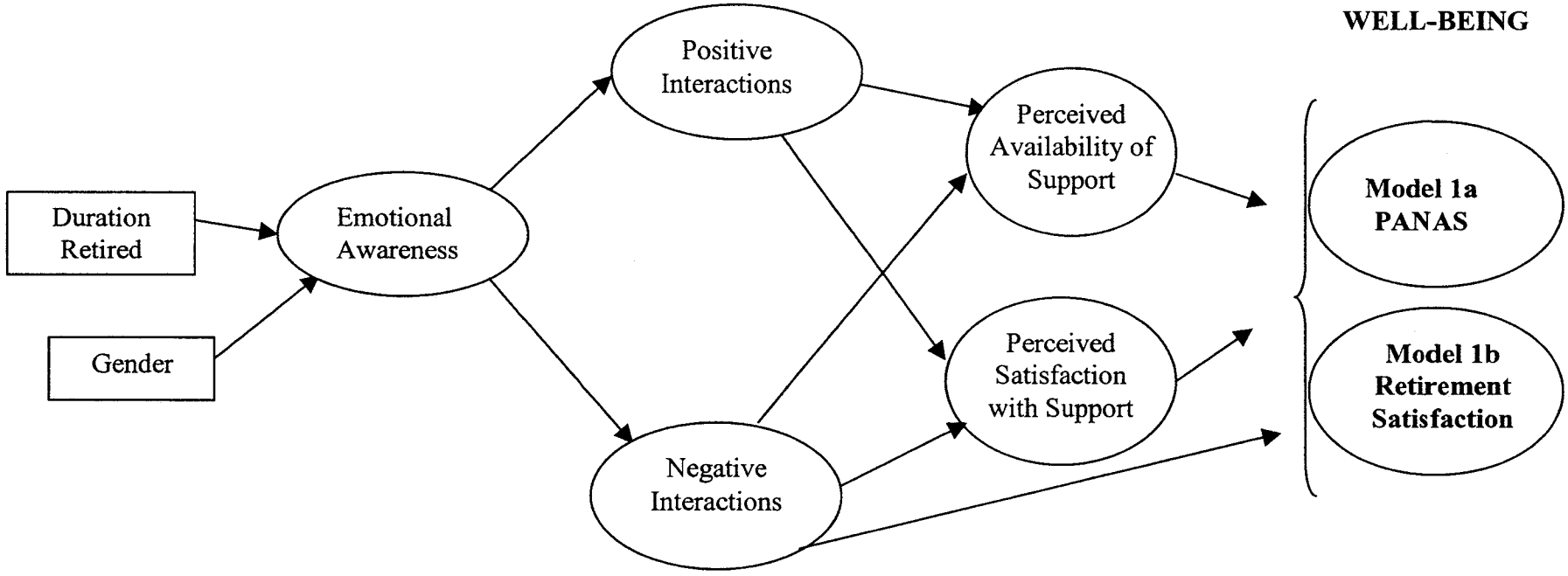

Figure 1. Hypothesized Model of Well-Being in Retirement

their anticipated feelings to 20 interpersonal scenes. Each scene is followed by two questions, namely, "How would you feel?" and "How would the other person feel?" Three scores, on a scale from 0 to 5 are given for the emotions described: one for the self, one for others, and a total score representing the emotional awareness of both self and other. The lowest level (0) reflects nonemotional responses, and the highest level (5) reflects highly differentiated emotions for the self and other.

Ten scenarios were used that were the most internally consistent and relevant to older adults based on analyses of pilot sample (N = 17) data, and previous research using this measure with older adults (e.g., "Your boss tells you that your work has been unacceptable and needs to be improved"; Pushkar Gold et al., 1994). Participant responses were coded by two trained experimenters, in accordance with the coding guidelines described by Lane & Schwartz (1987)[1]. The total score was employed in the analyses, and exhibited good internal consistency (alpha = .75). Inter-rater reliability for the LEAS was good, intra-class coefficients for the 10 scenarios ranged from .83 to 1.0, with an average coefficient of .91.

Perceived Social Support

A shortened, 10-question version of the Social Support Questionnaire (Sarason, Levine, Basham, & Sarason, 1983), which has demonstrated good reliability with older adults (see Markiewicz, Reis, & Pushkar Gold, 1997: alpha = .84-.92; test-retest =.83-.90 over 2 years), was employed to assess participants' perceptions of their support network. This measure assesses two aspects of perceived support, namely, availability of support, and satisfaction with this availability, across different domains including instrumental,

[1] Approval was given by the developers of the measure to have French responses translated by a doctoral-level bilingual researcher in the field of psychology and aging

emotional, and informational support. Factor analyses have confirmed that these two constructs are separable and required to account for individual differences in the level of perceived availability of others that is deemed satisfactory (Sarason et al, 1983). This measure requests that participants list the initials and their relationship for a maximum of nine people in their social network that they felt they could "count on" to provide support (e.g., Whom can you really count on to listen to you when you need to talk?), then they rated on a scale from 1 (very dissatisfied) to 6 (very satisfied) how satisfied they were with the support listed. The questionnaire demonstrated good internal consistency (availability of support alpha = .93; satisfaction with support alpha = .95).

Positive and Negative Social Exchanges

The frequency with which older adults experienced positive and negative interactions in the past month was assessed using a 24-item questionnaire, 12 questions assessing positive or negative exchanges (See Newsom et al., 2003). Each set of 12 questions has been shown to consist of 4 first order factors with older adults, corresponding to instrumental support, companionship, emotional support, and informational support. Confirmatory factor analyses with older adults also supports two, second order factors corresponding to positive and negative exchanges (see Newsom et al., 2003). Each question begins with the statement "In the past month, how often did the people you know…". Examples of endings to the questions for positive and negative social exchanges respectively, include: "do or say things that were kind or considerate toward you?", and "do things that were thoughtless or inconsiderate?". Participants rated each statement on a Likert scale from 0 (never) to 4 (very often). The questionnaire

demonstrated good internal consistency in the present sample (positive interactions alpha = .85; negative interactions alpha = .91).

Well-Being

Two aspects of well-being, including a cognitive judgment of life satisfaction, and a measure of positive and negative affect were employed.

Retirement Satisfaction Inventory (RSI). Two questions from the *Retirement Satisfaction Inventory* (Floyd et al, 1992) were used to measure participants' cognitive evaluations of their satisfaction with life in retirement. The questions asked participants to rate, on a scale from 1 (e.g., very dissatisfied, much worse) to 5 (very satisfied, much better), overall, how satisfied they were currently with their retirement, and how their life since retirement compares to their life before retirement. Internal consistency of the scale was good for the present sample (alpha = .84).

Positive and Negative Affect Schedule (PANAS). The PANAS is a 20-item measure consisting of two, 10-item subscales measuring positive (PA) and negative affect (NA) in the past few weeks (Watson, Clark, & Tellegen, 1988). The scale has been widely used and demonstrates good internal consistency (PA = .88; NA = .85). Support for the two-factor structure has been found employing samples of young and older adults (Crawford & Henry, 2004). Internal consistency for the present sample was good (PA = .91; NA = .90).

Overview of Analyses

Figure 1 depicts the hypothesized relationships among the study variables. Two path models were tested using the EQS program (version 6.1), one which employed both dimensions of the PANAS as the main outcome variable (Model 1a), and another that

employed retirement satisfaction as the main outcome variable (Model 1b). Due to concerns about multivariate non-normality maximum likelihood with Sattora-Bentler corrections for chi-square and standard errors was employed (Satorra & Bentler, 1994). Several fit indices were examined in addition to the chi-square statistic since the latter is sensitive to large sample sizes and non-normality in the underlying distribution of the input variables. Each fit index represents different aspects of model fit (Kline, 2005). Thus, in the present study, models with incremental fit indices (i.e., CFI) equal to or greater than .95, and a root mean square error of approximation value (RMSEA) less than or equal to .06 were understood to reflect overall model fit (Hu & Bentler, 1999). Incremental fit indices which adjust for model complexity (i.e., NNFI) were also used with values equal to or greater than .95 reflecting good fit. Due to the large number of variables involved in this study, and the relatively limited sample size, a full structural equation model with latent constructs was not employed. We have modeled error of measurement by treating each variable as a factor with one indicator and have used the reliability of each measure to estimate the variance of errors (Finkel, 1995). For each measure in the model, estimates of variance of error terms were provided using Cronbach alpha statistics (i.e., error variance = [1 – Cronbach alpha] x observed variance).

Demographic variables (i.e., age, health, education, finances, marital status) have a ubiquitous impact on well-being in retirement (Desrochers et al., 2002), and these variables were controlled in the path analyses. Marital status showed non-significant correlations with all of the outcome variables, and education did not relate to affect, and thus, were not controlled respectively. The outcome variables were regressed on the demographic variables and the unstandardized residualized scores were subsequently

employed in the path analyses reported below. Thus, the fit statistics and path coefficients reported reflect the variance explained in PANAS and retirement satisfaction *after* that attributable to age, health, education and finance have been removed. The variance that was accounted for by these demographics, and subsequently removed, amounted to 18% [Overall R = .44; F (4, 322) = 17.34, p < .0001] of retirement satisfaction, 13% [Overall R = .37; F (3, 325) = 16.48, p < .0001] of positive affect, and 10% of [Overall R = .32; F (3, 324) = 18.84, p < .0001] negative affect.

Results

The bottom diagonal of Table 1 reports the correlation coefficients for the main study variables. Descriptive statistics are reported in the lower section of the table. Overall, the correlations show accordance with the hypotheses of the present study except for a lack of relationship between emotional awareness and negative interactions. Negative interactions occurred half as frequently as positive interactions in this sample of retirees.

Path Analyses

PANAS Model

A path model was employed to test the hypotheses described above and depicted in Figure 1 (model 1a). This model showed poor fit to the data [Satorra-Bentler Scaled Chi-Square Statistic = χ^2 (20) = 63.19 (p = .000); CFI = .318]. Guided by theory, we considered the standardized residual matrix and the results of multivariate Lagrange multiplier to add paths sequentially, to improve the fit of the model. Paths from gender to perceived availability of support and positive and negative affect resulted in a significant chi-square difference (i.e., $\chi^2_{diff}(3) = 27.8$, p <.001) although, fit remained unacceptable.

Examination of the standardized covariance residuals suggested that adding paths from positive interactions to positive affect, and from emotional awareness to perceived availability of support would improve fit. These paths were added to the model which resulted in a non-significant chi-square value [χ^2 (15) = 18.06, p = .26] as an overall measure of fit. The robust model fit indices also improved substantially (CFI = .95; NNFI= .86; RMSEA = .02, CI = .0 - .06) which led us to support the model. To achieve parsimony, four non-significant paths were also deleted. The fit indices from the trimmed model improved (χ^2 (19) = 19.32, p =.43; CFI = .99; NNFI = .99; RMSEA = .01, CI = 0-.05). The path coefficients for this model are presented in Figure 2.

The findings partially support the hypothesis that emotional awareness is related to social patterns, and therefore well-being in retirement. Level of emotional awareness predicted more positive exchanges with others and greater perceived availability of network members but did not predict negative exchanges. The hypothesis that women would show higher levels of this skill was also supported. Gender had indirect effects on positive interactions (β = .05, p< .05) perceived availability of support (β = .05, p< .05), and positive affect (β = .01, p< .05) through emotional awareness. Gender was also directly related to greater perceived availability of support, and positive and negative affect, suggesting that its impact on these variables was only partially mediated by emotional awareness. Consistent with hypotheses, more positive and fewer negative exchanges were related to greater perceived availability and satisfaction with social networks. Positive interactions predicted greater positive affect directly

Table 1. Standardized Residuals [b] for the Baseline Models, Correlations, and Descriptive Statistics

(N=327)

Variable	1	2	3	4	5	6	7	8	9	10
1) LEAS	—	*-0.02*	*0*	*0.13*	*-0.02*	*-0.01*	*-0.01*	*0.02*	*0*	*0*
2) # Positive Interactions	.19**	—	*0*	*-0.01*	*-0.01*	*0.06*	*0.17*	*0.06*	*0.09*	*-0.01*
3) # Negative Interactions	-0.02	0	—	*0*	*0*	*0.01*	*0*	*0*	*-0.03*	*-0.05*
4) Perceived Availability of Support	.22**	.36**	-.24**	—	*0.08*	*0.01*	*0*	*-0.01*	*0.18*	*0.08*
5) Perceived Satisfaction with Support	0.04	.19**	-.24**	.23**	—	*0*	*0.01*	*0*	*-0.05*	*0*
6) Retirement Satisfaction	0	.13*	-.33**	.20**	.22**	—	— —	— —	0.08	0.13
7) Positive Affect	-0.03	.24**	-.22**	.24**	.12*	.59**	—	*0*	*0.17*	*0.06*
8) Negative Affect	0.03	0.03	.44**	-.14*	-.24**	-.45**	-.31**	—	*0.15*	*-0.05*
9) Gender[a]	.19**	.16**	-0.03	.21**	0.03	0.07	.19**	.12**	—	*0*
10) Duration Retired (years)	-.14**	-0.07	0	-0.02	-0.04	0.05	0.03	-0.04	-0.08	—
Descriptive Statistics										
Mean	31.08	41.03	20.74	3.71	5.12	5.06	37.18	15.5	--	1.09
SD	4.97	8.47	7.28	1.7	0.85	0.95	7.39	6.32	--	0.56

Note. Correlations are in the lower left diagonal and standardized residuals for the baseline PANAS and Retirement Satisfaction models are in the upper right diagonal. [a] coded as 0=male, 1=female. [b] the standardized residuals between gender, duration retired, LEAS, positive and negative interactions, and perceived support were the same, or fluctuated only slightly between the PANAS and Retirement Satisfaction models. * $p < .05$; ** $p < .01$.

and negative interactions predicted both negative and positive affect directly, offering support for the "negativity effect". Both positive (β = -.03, $p < .05$) and negative (β = .04, $p < .05$) interactions had indirect relationships with negative affect through support satisfaction. Despite the detrimental effect of negative interactions on support satisfaction, the latter maintained an inverse relationship with negative affect. In contrast to the hypotheses, duration retired negatively predicted level of emotional awareness. Overall, the predictors in this model explained 7% of the variance in level of emotional awareness, 5% in positive interactions, 25% in perceived availability of support, 12% in satisfaction with support, 24% in negative affect, and 12% in positive affect; after controlling for the variance associated with age, health, and finances.

Retirement Satisfaction Model

A path model was employed to test the study hypotheses that are described above and depicted in Figure 1 (model 1b) with respect to the main outcome variable of retirement satisfaction. When applied to the data using the EQS program, this model showed poor fit to the data [χ^2 (16) = 34.18, p =.005; CFI = .69]. Guided by theoretical considerations, the standardized residual matrix, and the multivariate Lagrange multiplier test, we added paths sequentially to improve model fit. Similar to the PANAS model, paths were added from gender and emotional awareness to perceived availability of support. This resulted in a significant chi-square difference [χ^2_{diff}(2) = 12.86, p <.001] and somewhat improved fit indices (χ^2 (14) = 21.32, p = .09; CFI = .875). An additional path was added between duration retired and retirement satisfaction which resulted in a significant chi-square difference [χ^2_{diff}(1) = 4.40, p <.05] and improved fit indices (χ^2 (13) = 16.92, p = .20; CFI=.93). To achieve parsimony, two non-significant paths were

deleted, and the trimmed model showed improved model fit (χ^2 (15) = 17.76, p = .27; CFI = .95; NNFI =.89; RMSEA = .02, CI = 0-.06).

Figure 3 depicts the final model of the significant paths between the independent variables and retirement satisfaction. The direct and indirect relationships observed between duration retired, level of emotional awareness, gender, perceived availability of positive and negative interactions and perceived satisfaction and support remained the same as the PANAS model. Perceived satisfaction and duration retired were positively related to retirement satisfaction. Similar to the PANAS model, both positive (β = .04, $p < .05$) and negative (β = -.05, $p < .05$) interactions also had indirect effects on retirement satisfaction through perceived satisfaction with support. Negative interactions predicted retirement satisfaction directly, offering additional support for the "negativity effect". Overall, the combination of predictors described above explained 7% of the variance in level of emotional awareness, 5% in positive interactions, 25% in perceived availability of support, 11% in satisfaction with support, and 13% in retirement satisfaction, after controlling for the variance associated with age, health, and finances.

Discussion

The main goals of the present study were 1) to examine emotional awareness as a putative mechanism related to positive and negative social support in retirement; 2) to test for a "negativity effect" on both emotional and cognitive components of well-being in retirement; and 3) to assess the mediating role of perceived availability and quality of support with respect to interactions and well-being. The findings suggest that female retirees possess superior emotional awareness, which is associated with greater positive

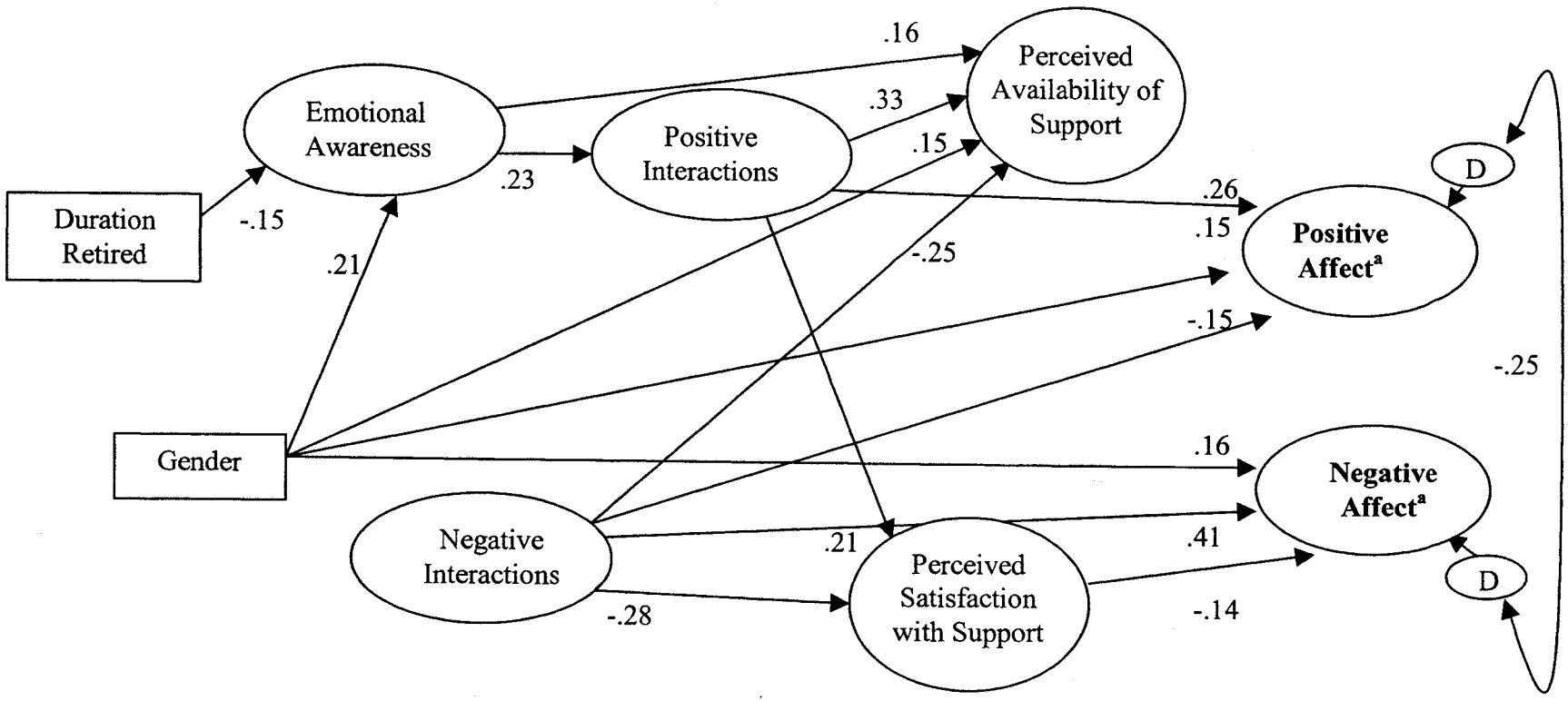

Figure 2. Final model 1a depicting the significant paths among gender, duration retired, emotional awareness, positive and negative interactions, perceived support, and positive and negative affect: Satorra-Bentler χ^2 (19) = 19.32, p = .43, CFI = .99, NNFI = .99, RMSEA = .01 (C.I. = 0-.05). [a]The effects of age, health, and finances are controlled in positive and negative affect.

interactions, and is related indirectly to higher levels of perceived quality of support in retirement. This finding offers empirical support for the common assumption that socio-emotional skills underlie differences in the attainment of beneficial social support in men and women in later life, and offers a specific mechanism for further study. Gender was also directly related to perceived availability of support and affect, suggesting that gender differences in factors other than emotional awareness are related to social support and well-being in retirement. For example, women have been shown to exhibit higher affect intensity than men across the lifespan, and this has been employed as an explanation of the paradoxical finding that women report both greater positive and negative affect than men (Fujita, Diener, & Sandvik, 1991).

The lack of association between emotional awareness and negative interactions indicates that although emotional awareness facilitates positive interactions, it plays no significant part in managing or reducing negative interactions. Furthermore, the negative association between emotional awareness and length of time retired indicates that other processes become more important in social interactions as retirement progresses. SST makes specific predictions about late life developmental goals that, in addition to Continuity Theory, offer a useful framework to explain these findings. SST proposes that older adults become more motivated by emotional goals as they perceive lifetime remaining to lessen with age. Accordingly, older adults purportedly "prune" their networks to include emotionally close contacts that generate mainly positive emotional experiences (Carstensen et al., 2003). Also, when negative events do occur, SST proposes that older adults are more likely than younger adults to apply cognitive strategies to diminish the impact of the event, rather than to employ direct strategies to

remove the stressor once and for all (Carstensen et al, 2003). Thus, both SST and Continuity Theory predict that older adults use strategies to maintain continuity in well-being however, SST specifies that this is achieved through emotion-regulation strategies that maximize positive, and minimize negative experiences. This shift in motivation to emotional goals may be triggered by retirement in which lifetime remaining is made particularly salient, and one is no longer obliged to interact with co-workers or others who are not emotionally close. Furthermore, retirees with greater emotional awareness may enter retirement with a greater ability to attain the positive emotional goals proposed by SST. The findings of the present study are in line with these predictions, as retirees with higher levels of emotional awareness appear to also have greater positive interactions, which are indirectly related to more positive perceptions about support, and well-being. Greater emotional awareness was also directly related to more positive perceptions about the availability of support, perhaps resulting from the more emotionally aware retirees' preferences for remembering the positive contributions of their support networks (Charles & Piazza, 2007). The negative relationship observed between emotional awareness and duration retired suggests that those who are retired longer rely less on emotional awareness skills. Thus, although awareness may be useful very early in retirement, its role may diminish once new positive networks become established. Nonetheless, even after controlling for important demographic variables, adults who were retired longer were more satisfied, perhaps due to the reorganization that had already occurred within their social networks.

The lack of relationship observed between emotional awareness and negative interactions, interpreted within the SST framework, is not surprising as SST predicts

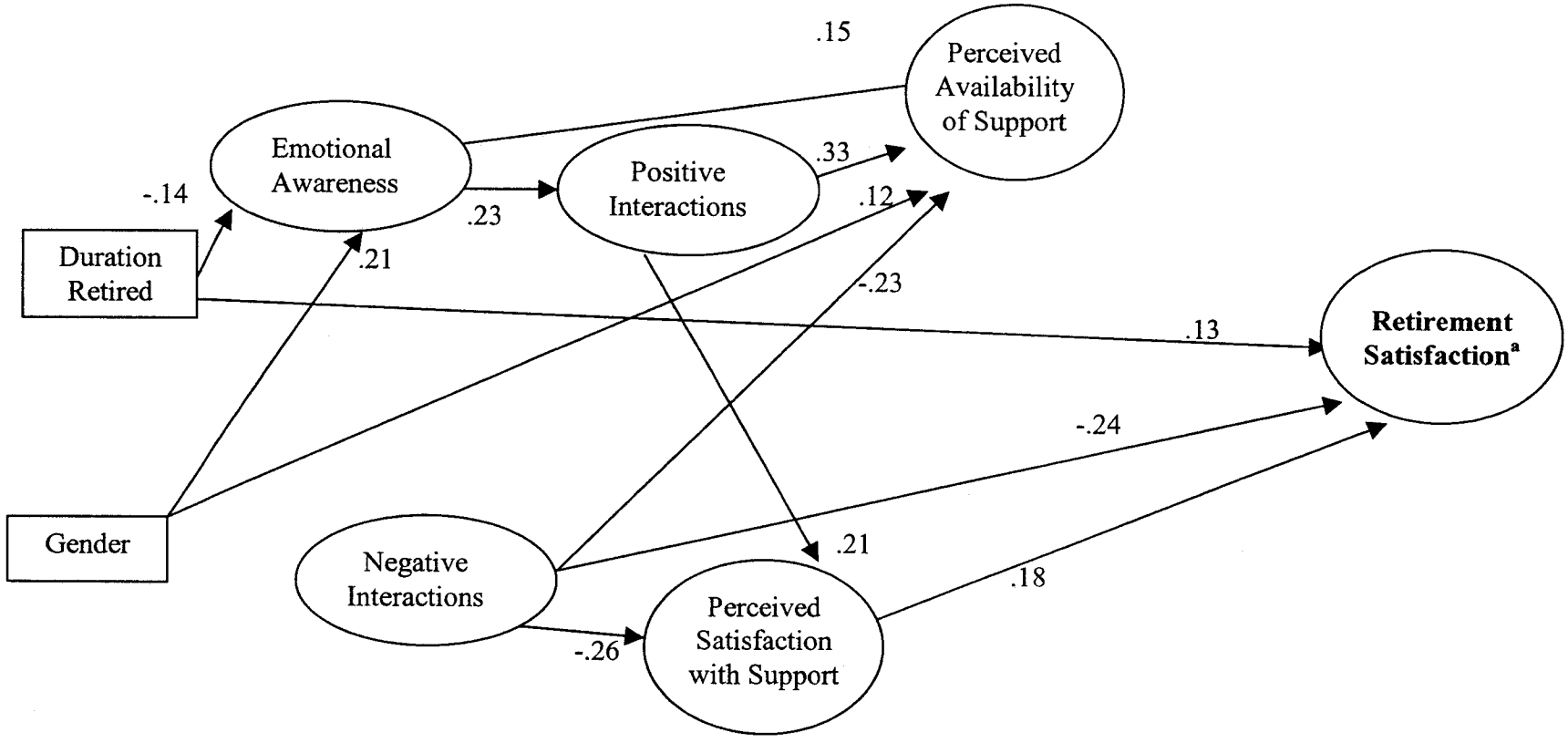

Figure 3. Final Model 1b depicting the significant paths among gender, duration retired, emotional awareness, positive and negative interactions, perceived support and retirement satisfaction: Satorra-Bentler χ^2 (15) = 17.76, p =.27, CFI = .95, NNFI= .89, RMSEA= .02 (C.I. = 0-.06). [a]The effects of age, education, health and finances are controlled in retirement satisfaction.

that selective pruning and cognitive strategies towards amplifying positive experiences result in fewer negative experiences; perhaps too few to detect a statistical association with emotional awareness. Indeed, negative interactions were reported to occur half as frequently as positive interactions. It is also likely that emotional awareness is insufficient to *prevent* some of the negative experiences that are prone to occur within a "pruned" network of mainly close ties. Such conflicts, albeit less frequent, may be the result of long-standing disagreements that are particularly difficult to resolve. In accordance with this notion, although negative interactions tend to decrease overall with age, some negative interactions have been shown to persist over time in older adults (Akiyama, Antonucci, Takahashi, & Langfahl, 2003; Krause & Rook, 2003), and occur more frequently with close ties (Antonucci, Akiyama, and Lansford, 1998; Sorkin & Rook, 2004). Also, although the detrimental impact of negative interactions can be modified, it is not eliminated by the cognitive strategies proposed by SST (Sorkin & Rook, 2004). Thus, the same qualities that make these few negative interactions persistent may also underlie the particularly strong association they had with retirees' well-being.

With respect to the second goal of the study, and consistent with the "negativity effect" hypothesis, when support in early retirement was measured in negative terms, it had a more powerful relationship with retirement satisfaction, and more widespread associations on affect than both positive interactions and perceived support, despite less frequency. This result extends existing research by documenting a negativity effect in a sample of recently retired adults. The findings also suggest that the notion that perceived quality of support is most strongly associated with well-being compared to other types of

support measures, must be qualified by whether it is positive or negative qualities being measured. Thus, researchers should routinely include comparable measures of both positive and negative aspects of support. The negativity effects emerged in the present cross-sectional study, which is contrary to recent research with an older sample of adults, using identical measures, in which negativity effects emerged only in the long term (Newsom et al., 2003). Also, the negativity effects of the current study appear to be stronger than those reported in a meta-analysis that reported that social negativity and perceived satisfaction with support have comparable effects on emotional outcomes (Finch et al., 1999). The more potent, short-term associations of negative support in the current sample may result from the exacerbating impact of disrupted roles in early retirement. Indeed, the impact of conflict on older adults' well-being has been shown to be stronger in the context of stressful life events (August, Rook, Newsom, 2007). For example, longstanding marital conflicts regarding the division of labor may become exacerbated when one spouse retires and the other continues to work. Recently, retirement researchers described support for this argument with the finding that newly retired husbands reported more depressive symptoms if their wives continued to work outside the home after they retired (Szinovacz & Davey, 2004). Retirees in the present study were asked to rate how difficult the first few months of retirement had been. A significant bivariate correlation ($r = .19$, $p < .01$) indicated that retirees who experienced more difficulty in the first few months also experienced more negative interactions. Thus, the current study provides a foundation for future hypotheses about the types of negative interactions that are more likely to occur in retirement, and the factors that exacerbate their influence.

With respect to the third goal of the study, some positive and negative interactions were more likely to be associated with perceptions of overall satisfaction with support, indicating that their impact on well-being is indirect, whereas others were independent of perceived support satisfaction, and directly related to well-being. Although it is not possible to directly test which types of interactions are more likely to be mediated by perceived satisfaction with support versus those that have a direct influence, prior research, CT, and SST offer useful frameworks from which to develop predictions for future research. Interactions with close ties are often perceived as ambivalent as well as positive or negative (e.g., help can be construed as an implication of incompetence) (Fingerman, Hay, & Birditt, 2004). Also, ambiguous interactions predict distress independently of positive and negative support (Uchino, Holt-Lunstad, Smith, & Bloor, 2004). It is possible that ambiguous interactions are more likely to be evaluated in the context of overall support satisfaction in order to make more sense of them, to reduce their negative impact, or maximize their positive impact, whereas interactions that are clearly positive or negative have a direct influence on well-being. This notion is consistent with CT and SST and the hypothesis that older adults employ cognitive strategies to maximize positive and lessen negative experiences in later life. Future research is needed to understand the cognitive strategies that older adults use to evaluate the social interactions that occur during the retirement transition, and how these processes influence well-being.

Conclusions and Limitations

This study adds a new dimension to research on retirement, substantiating the notion that women exhibit greater emotional awareness, and that this skill is related to

social support. Emotional awareness may be less consequential to negative aspects of support due to selectivity strategies that focus on maximizing positive support in early retirement, or because of the intractable nature of the few conflicts that linger in retirees' "pruned" networks. Also, emotional awareness represents but one aspect of emotional competence thus, future research could include a more comprehensive, objective assessment, identifying other skills that may prevent persistent conflicts from reoccurring. Measures of the ability to "manage emotions" have shown promise in this regard (e.g., Lopes, Salovey, & Strauss, 2003).

The "negativity effect" observed in the present study has implications for retirement interventions that appear to lack theoretical grounding and have largely focused on financial planning, health, leisure, and perceptions of the future. Thus, they have failed to consider the potential importance of negative support over and above demographic factors (Reis & Pushkar Gold, 1993). The lay assumption that retirees need to invest energy building positive social networks through activity participation may need to be modified to include a focus on diminishing lingering or exacerbated conflicts with close ties. It is worth noting however, that there is ambiguity inherent in many interactions. For example, positive and negative support may occur with the same network member, or "positive" support may be interpreted in a negative manner (i.e., help may be construed as an implication of incompetence) (Newsom et al., 2005; Uchino et al., 2004). Thus, future research, which accounts for the ambiguous nature of positive and negative social interactions is needed to guide the development of interventions for retirees. Finally, the relationships examined in this study need to be assessed

longitudinally, such that previous levels of well-being and social support patterns may be controlled, and the direction of causality between these variables substantiated.

LINKING TEXT

In study one, the cross-sectional relationships between duration retired, gender, emotional awareness, frequency of positive and negative interactions, perceived availability and satisfaction with support, and well-being were assessed. In accordance with Continuity Theory, it was hypothesized that retirees employ "continuity strategies" in order to maintain consistency in the frequency with which positive and negative interactions occur, and therefore, well-being. This study built on previous research in retirement by investigating the previously unexamined "continuity strategy" of emotional awareness. This measure was chosen as it has shown gender differences favouring women, and a unique relationship with the attainment of social support. Study one also extended the extant retirement research through its assessment of the impact of comparable measures of the frequency of positive and negative interactions, as well as perceptions of support, on a multi-dimensional construct of well-being. Based on existing research with older adults, a "negativity effect" was proposed, in which negative aspects of support were hypothesized to be more consequential for well-being in recent retirees than positive support. It was also hypothesized that perceived availability and satisfaction with support would partially mediate negative interactions, in line with the predictions of Socio-emotional Selectivity Theory.

Although study one provides preliminary support for the notion that emotional awareness allows retirees to maintain continuity in positive support, that negative social experiences have a disproportionate impact on well-being in retirement, and that perceptions about the quality of the social network mediate the impact of negative interactions, these conclusions are limited due to the cross-sectional nature of the data.

Specifically, in order to determine whether "continuity" in support in fact occurs across retirement, it is necessary to examine social support over time. Also, to substantiate the direction of causality between positive and negative interactions and perceptions of support, it is necessary to measure these variables at earlier and later time points. For example, it has been alternatively argued that perceptions of support are stable cognitions that predetermine how individual interactions are interpreted, leading to direct impacts on well-being (see Lakey, Drew, Anan, Sirl, & Butler, 2004). Furthermore, the "negativity effect" observed in the cross-sectional analyses may be confounded by individual baseline levels of affect and retirement satisfaction (Newsom et al., 2003). Thus, longitudinal analyses are required to statistically control for baseline well-being, to observe whether the "negativity effect" is maintained. Finally, although the cross-sectional data indicates that emotional awareness decreased with duration retired, this effect may be confounded by cohort effects. Longitudinal, within-subjects analyses will determine whether greater emotional awareness is related to positive interactions at initial, as well as later time points. Therefore, study two will build on study one through its use of longitudinal data, to test whether emotional awareness is a "continuity strategy" that is employed to maximize positive support across time, and whether the potent and pervasive impact of negative social support remains once baseline affect and satisfaction are controlled. Also, given its lack of influence on well-being at Time 1, and the numerous variables to be included in the Time 2 analyses (i.e., time 1 and time 2 interactions and perceived support), perceived availability of support will not be included in longitudinal analyses.

CHAPTER THREE: STUDY TWO

A longitudinal study of emotional competence, support continuity, and well-being in retired men and women

Introduction

Social support is a key determinant of well-being across the lifespan. In retirement, relationships with coworkers are lost, and roles within the family often require renegotiation (van Solinge & Henkens, 2005). Nonetheless, life span developmental theories predict that adults adjust to retirement, through adaptive strategies that maintain support. Continuity Theory (CT) proposes that retirees employ "continuity strategies" based on internal dispositions and skills, which help maintain preferred levels of social interactions. These help individuals adapt and express their identity appropriately across their post-employment life, and result in maintained well-being (Atchley, 1999). Similarly, Socio-emotional Selectivity Theory (SST) predicts that as life time remaining becomes more salient, adults become increasingly focused on emotional goals in order to maintain well-being (Carstensen, Fung, & Charles, 2003). Accordingly, older adults are hypothesized to employ emotion-regulation strategies to engender "positivity", such as proactively "pruning" social networks to include mainly close ties, or honing cognitive processes to focus on the positive aspects of social information.

Consistent with the above theories, it has been shown that although workers report pre-retirement anxiety about expected losses in their social network (Hayslip, Beyerlein, & Nichols, 1997), and reductions in support in retirement, their perceptions about the quality of their support remain stable (Bosse, Aldwin, Levenson, Spiro, & Mroczek, 1993). Quality of support (i.e., satisfaction) is also a stronger predictor of well-

being in retirement than extent of support networks (Bosse et al., 1993; Szinovacz & Davey, 2004). This research is limited as it typically employs one-dimensional measurements of only the positive aspects of social support (e.g., Szinovacz & Davey, 2004). The complexity inherent in older adults' social support networks is not reflected in the existing retirement research. For example, close ties are more likely than distal ties to be associated with both positive and negative support exchanges (Fingerman, Hay, & Birditt, 2004). Furthermore, negative interactions have been shown to exert a more potent impact than positive interactions on both perceived satisfaction with support (Krause, 1995; Finch, Okun, Pool, & Ruehlman, 1999), and well-being (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Newsom, Nishishiba, Rook, & Morgan, 2003; Rook, 2001). This "negativity effect", is especially striking since older adults report fewer negative interactions with age (Newsom et al., 2003). Thus, although retirement research has documented the positive impact of supportive ties (Desrochers, Lapierre, & Alain, 2002; Fouquereau, Fernandez, Fonesca, Paul, & Uotinen., 2005; Szinovacz & Washo, 1992; Mor-Barak, Scharlach, Lourdes, & Sokolov, 1993), more complete assessments of social support must be employed longitudinally, in accordance with current trends in aging research.

To provide a comprehensive assessment of social support, the present study builds upon earlier cross-sectional findings (Beaman, Pushkar & Etezadi, 2008), employing a standardized measure of the frequency of both positive and negative interactions, as well as a measure of perceived satisfaction with support longitudinally. Competing views exist concerning the direction of the relationships between interactions, perceived satisfaction with support, and well-being. The view consistent with the present study

conceptualizes social interactions as interpersonal events, and proposes that their influence on well-being is mediated by perceptions of support (e.g., Newsom, Rook, Nishishiba, Sorkin, & Mahan, 2005). For example, some negative interactions may have a less detrimental impact on well-being for a retiree who is satisfied overall with support, and more for a retiree who is less satisfied. This view is in line with SST, which proposes that older adults often employ cognitive strategies to lessen the impact of negative events. Accordingly, one study by Rook (2003) showed that increases in reactivity (i.e., daily mood) and exposure (i.e., number of negative exchanges) negative interactions were more likely to reduce over a one-year period if older adults were more satisfied with their social network, suggesting that positive perceptions of the social network buffer the detrimental impact of negative interactions (Rook, 2003). Another view, the "social-cognitive model", proposes that perceptions of support are stable cognitions that predetermine how individual interactions are interpreted, leading the latter to have direct impacts on well-being (see Lakey, Drew, Anan, Sirl, & Butler, 2004). The panel design employed in the current study allows for a comparison of these alternate models and for baseline levels of well-being to be controlled.

An additional gap in retirement research concerns the exploration of "continuity strategies", such as older adults' putative reliance on socio-emotional skills to maintain continuity in support. Although it is assumed that better socio-emotional skills facilitate women's closer ties in later life compared to men (Antonucci, 2001; Barbee et al., 1993; Fernandez, Mutran, Reitzes, & Sudha, 1998; Krause & Shaw, 2002), this has yet to be empirically investigated using objective measures. The lack of objective measures of socio-emotional skill, that are both suitable to older populations and show discriminant

validity, may explain the paucity of research in this area. "Emotional awareness" is a distinct skill, differing from other socio-emotional skills, as it is measured using a performance test, is independent of mood effects, and predicts social support independently of self-report measures of socio-emotional skills (Ciarrochi, Caputi, & Mayer, 2003; Ciarrochi, Scott, Deane, & Heaven, 2003). Emotional awareness is defined as the cognitive-developmental skill of recognizing emotions in the self and others in a differentiated manner, and is proposed to be fundamental to emotion regulation (Barrett, Lane, Sechrest, & Schwartz, 2000; Lane, 2000). Men consistently show lower levels of emotional awareness in one's self and others (Barrett et al., 2000; Ciarrochi, Hynes, & Crittenden, 2005; Conway, 2000; Lane, Sechrest, & Riedel, 1998). Men also receive support from less differentiated sources, report less intimate relationships with network members, and may be more vulnerable to network loss in retirement than women (Antonucci, 2001; Fernandez et al., 1998; Gurung, Taylor, & Seeman, 2005). Thus, further exploration of the relationships between gender, emotional awareness, and social support during a transition such as retirement is warranted.

The Current Study

Bivariate correlations for the present study sample indicated no relationship between emotional awareness and negative interactions, but a positive relationship with positive interactions (Beaman et al., 2008). Also, negative interactions occurred half as frequently as positive interactions at both time points. These preliminary findings were interpreted within the context of SST to refine predictions for the current study. It was reasoned that if older adults "prune" social networks to include mainly close ties, it likely leads to infrequent negative interactions; too infrequent to detect an association with

emotional awareness. On the other hand, some negative interactions have been shown to persist over time with mainly close ties (Antonucci, Akiyama, and Lansford, 1998; Sorkin & Rook, 2004). Thus, emotional awareness is likely insufficient to prevent the complicated conflicts that are prone to persist in this context. It was reasoned that the difficult nature of these interactions would lead to their disproportionate impact (i.e., "negativity effect") on well-being; an hypothesis supported by previous research with older adults (Newsom et al., 2003).

The present study built on cross-sectional analyses (Beaman et al., 2008) by employing a two-wave panel design specified as a "conditional change model" in order to satisfy the conditions of causality; namely, that the putative causal variables precede dependent variables in time, and that the relationships between causal variables and dependents are not spurious (Finkel, 1995). This study limited the sample to those who had been retired for 2 years or less at Time 1, in order to assess the experience of recent retirees. Also, since the impact of social support variables on retirement adjustment has been shown to differ across time (Reitzes & Mutran, 2004), the effect of duration retired was modeled. It was hypothesized that retirees would draw upon their emotional awareness skills primarily in the very early phases of retirement when they are demanded most, in order to facilitate positive connections in their social networks. Thus, a negative relationship between duration retired and emotional awareness was predicted. Finally, this study builds on existing retirement research by employing a comprehensive outcome measure of both cognitive and affective components of well-being longitudinally (Diener, Lucas, Scollon, 2006).

Figure 1 depicts the hypotheses of the present study including: 1) emotional awareness is employed as a "continuity strategy" to maintain consistency in the frequency of time 1 and 2 positive, but not negative interactions; 2) emotional awareness mediates the relationship between the duration of time retired and interactions; 3) the relationship between gender and positive interactions will be mediated by emotional awareness, such that retired women will show higher levels of emotional awareness than retired men; and 4) although both positive and negative interactions are mediated by perceived satisfaction with support, some negative interactions also exert a direct, "negativity effect" on well-being, presumably due to their longstanding, and complicated nature.

Method

Participants and Procedure

A total of 447 retirees were recruited in wave 1 from a large provincial corporation, retirees' associations, and advertisements placed in French and English community newspapers. Study measures were completed in the laboratory at time 1 and again approximately 12 months later. Retirees were screened to ensure they completed at least 20 years of full-time employment, were not presently employed more than 10 hours a week, and spoke either English or French fluently. All of the questionnaires were available in English and French versions and participants were compensated 50 dollars (CAD) for taking part in one group testing session. The current study examined longitudinal data for those retired 2 years or less at wave 1 (N=327). Of the 327 retirees who participated at time 1, 285(87%) also participated in wave 2 of the study. Of the 42 who were not included in wave 2, 58% could not be reached, 18% withdrew due to lack

of interest, 15% were excluded from the analyses or withdrew due to serious health problems, and 9% of the cases were excluded because they were multivariate outliers or evidenced unreliable responding. Logistic regression analyses, including all of the main study variables, were employed to assess the likelihood of non-random attrition. The overall Omnibus test of coefficients was non-significant (Chi-square (15) = 22.05, p =.107), suggesting that, taken together, the predictors did not have significant relations with the outcome; however from the test of individual predictors it was noted that education was a significant predictor of dropout at wave 2 (Wald = 5.29, p = .02; exp (B_{ed}) = 1.22), indicating that the odds of retirees dropping-out of the study (versus staying in the study) increased by a factor of 1.22 or 22 percent for every unit increase in education level.

Measures

Demographic and Personal History

The samples at time 1 and time 2 did not significantly differ on any of the demographic variables. The average age of participants was 59 years, 46% of the participants were male, and 63% of the sample was married. The average number of years of education was 15 (SD = 2.46) and 86% of the participants rated their financial situation as the same (27%) or better (59%), than that of most other people their age. A one-item measure from the Tri-Scales was used to assess subjective health (Schonfield & Hooper, 1973). Participants rated their current health status compared to the average Canadian on a scale from 1 (Extremely Ill) to 9 (Extremely Vigorous). Approximately 8% of the participants described themselves as slightly or quite ill, 14% were neutral,

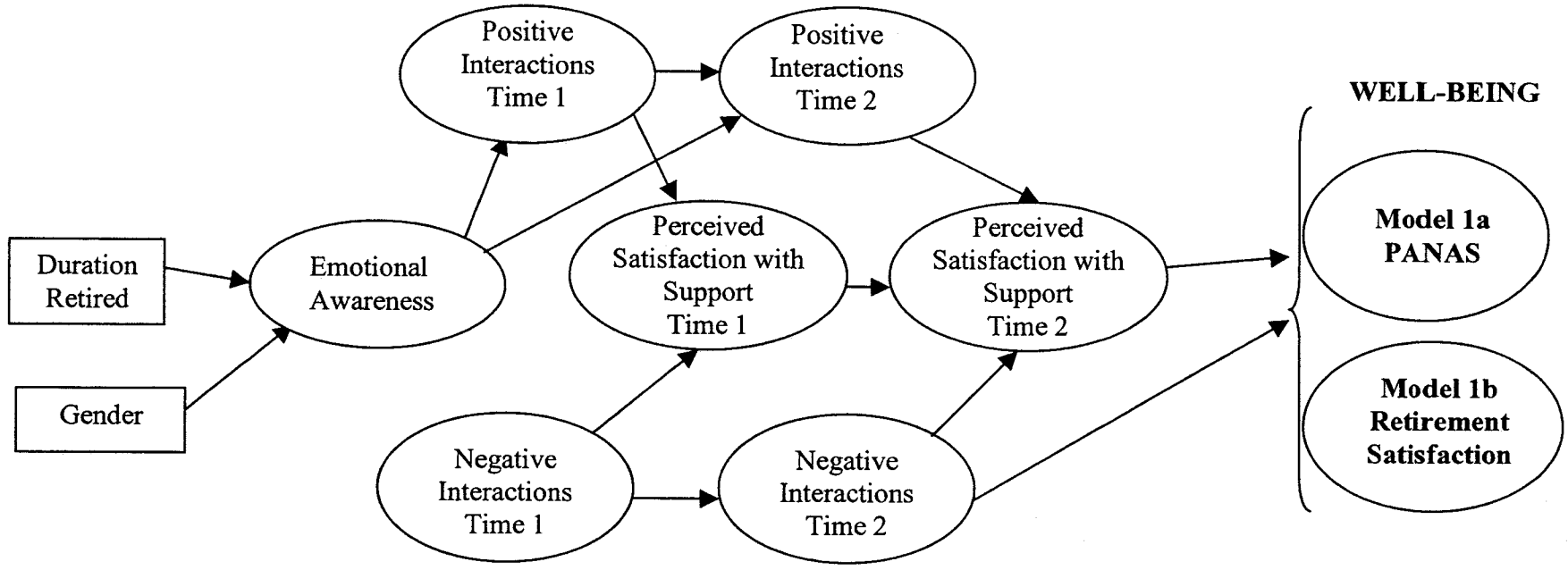

Figure 1. Hypothesized Longitudinal Model of Well-Being in Retirement

11% slightly vigorous, 30% vigorous, 26% quite vigorous, and 10% extremely vigorous. The average number of years worked was 35 (SD = 6.9). Eighteen percent of retirees reported difficulty adjusting during the first few months of retirement.

Emotional Competence

Levels of Emotional Awareness (LEAS). Emotional awareness was measured at time 1 by the Level of Emotional Awareness Scale (LEAS) (Lane & Schwartz, 1987). This performance test requires participants to describe their anticipated feelings to 20 interpersonal scenes. A condensed measure of 10 scenarios was used which included internally consistent scenarios most relevant to older adults based on pilot sample (N = 17) data, and previous research with older adults (Pushkar Gold et al., 1994; e.g., "Your boss tells you that your work has been unacceptable and needs to be improved"). Each scene is followed by two questions, namely, "How would you feel?" and "How would the other person feel?" Three scores, on a scale from 0 to 5 are given for the emotions described: one for the self, one for others, and a total score representing the emotional awareness of both self and other. The lowest level (0) reflects non-emotional responses, for example, when a thought is described rather than a feeling (e.g., "Maybe he would *believe* that thanks to his observation he influenced me and that I will do what's necessary to do better."). Alternatively, the highest score of 5 reflects highly differentiated emotions for the self and other (e.g., "I would feel *frustrated* if I did not have any explanation, but *glad* if this allowed me to improve myself. My boss could feel *disappointed* with my work or *happy* to settle a past issue with me"). All responses were coded by two trained experimenters. Approval was given by the developers of the measure to have French responses translated by a doctoral-level bilingual researcher in

the field of psychology and aging. The total score, representing awareness of both one's own and other's emotions was employed in the analyses, and it exhibited good internal reliability (alpha = .75). Inter-rater reliability for the LEAS was excellent (98% raw agreement; Cohen's kappa = .88; intra-class coefficients ranged from .83 to 1.0).

Social Support Variables

Social Support Questionnaire (Sarason, Levine, Basham, & Sarason, 1983). A shortened, 10-question version of this questionnaire with good reliability for older adults (see Markiewicz, Reis, & Pushkar Gold, 1997: internal reliability = .84-.92; test-retest =.83-.90 over 2 years), was employed at time 1 and time 2 to assess participants' perceptions of their satisfaction with their support network across the domains of instrumental, emotional, and informational support. Participants listed the initials and their relationship for a maximum of nine people in their social network that they felt they could "count on to provide support" (e.g., Whom can you really count on to listen to you when you need to talk?), then they rated on a scale from 1 (very dissatisfied) to 6 (very satisfied), how satisfied they were with the support listed. The questionnaire demonstrated good internal reliability (Time 1 = .94; Time 2 = .94).

Positive and Negative Social Exchanges Questionnaire. The frequency with which older adults experienced positive and negative interactions in the past month was assessed at time 1 and time 2 using a 24-item questionnaire, 12 questions assessing positive or negative exchanges (see Newsom et al., 2003). Each set of 12 questions has been shown to consist of 4 first order factors corresponding to instrumental support, companionship, emotional support, and informational support in older adults. Confirmatory factor analyses support two, second order factors corresponding to positive

and negative exchanges (Newsom et al., 2003). Each question begins with the statement "In the past month, how often did the people you know...". Examples of endings to the questions for positive and negative social exchanges respectively, include: "do or say things that were kind or considerate toward you?", and "do things that were thoughtless or inconsiderate?" Participants rated each statement on a Likert scale from 0 (never) to 4 (very often). The questionnaire demonstrated good internal reliability (time 1 positive= .90, negative = .90; time 2 positive = .86, negative =.91) and reflected similar values as previous research with older adults (Newsom et al., 2003).

Outcome Variables: Well-Being

Retirement Satisfaction Inventory (RSI). Two questions from the *Retirement Satisfaction Inventory* (Floyd et al, 1992) were used to measure participants' cognitive evaluations of their satisfaction with retirement. The questions asked participants to rate at time 1 and time 2, on a scale from 1 (e.g., very dissatisfied, much worse) to 5 (very satisfied, much better), overall, how satisfied they were currently with their retirement, and how their life since retirement compares to their life before retirement. Internal reliability of the scale was good for the present sample (time 1= .81; time 2= .82).

Positive and Negative Affect Schedule (PANAS). The PANAS is a 20-item measure consisting of two, 10-item subscales measuring positive (PA) and negative affect (NA) in the past few weeks (Watson, Clark, & Tellegen, 1988). The scale has been widely used and demonstrates good internal consistency (PA = .88; NA = .85). Support for the two-factor structure has been found employing samples of young and older adults (Crawford & Henry, 2004). Internal reliability for the present sample was good (Time 1

PA= .90, NA=.89; Time 2: PA = .90, NA = .87) and reflected similar values as previous research with older adults (Newsom et al., 2003).

Overview of Analyses

Figure 1 depicts the hypothesized relationships between the study variables. Two path models were tested using the EQS program (version 6.1), one which employed both dimensions of the PANAS (Model 1a), and another that employed retirement satisfaction as the main outcome variable (Model 1b). Due to concerns about multivariate non-normality maximum likelihood with Sattora-Bentler corrections for chi-square and standard errors was employed (Satorra & Bentler, 1994). Listwise deletion was employed for missing data, which amounted to 5% or less for both models. Several fit indices were examined in addition to the chi-square statistic since the latter is often oversensitive to large sample sizes, and each fit index represents different aspects of model fit (Kline, 2005). Models with incremental fit indices (i.e., CFI) equal to or greater than .95, and a root mean square error of approximation value (RMSEA; see Hu & Bentler, 1999) less than or equal to .08 reflected overall model fit. Incremental fit indices that adjust for model complexity (i.e., NNFI), and have values equal to or greater than .95 also reflect good fit. Due to the large number of variables in this study, and the relatively limited sample size, a full structural equation model with latent constructs was not employed. However, we modeled error of measurement by treating each variable as a factor with one indicator and have used the reliability of each measure to estimate the variance of errors (Finkel, 1995). For each measure in the model, estimates of variance of error terms were provided using Cronbach alpha statistics (i.e., error variance = [1 – Cronbach alpha] x observed variance).

Demographic variables (i.e., age, health, education, finances) have a ubiquitous impact on well-being in retirement (Desrochers et al., 2002), and were assessed and controlled for in the path analyses. Marital status showed non-significant correlations with the time 2 outcome variables, and age and education were not significantly correlated with time 2 affect, thus, they were not respectively controlled. The outcome variables were regressed on the demographic variables as well as time 1 affect and retirement satisfaction, and the unstandardized residualized scores were subsequently employed in the path analyses reported below. Thus, the fit statistics and path coefficients reported below for each model reflect the variance explained in time 2 PANAS and time 2 retirement satisfaction *after* the variance attributable to age, education, health, finance, and time 1 well-being have been removed. The variance that was accounted for by these demographics and time 1 affect or retirement satisfaction amounted to 52% [Overall R = .72; $F(5, 284) = 60.45$, $p < .0001$] of retirement satisfaction, 51% [Overall R = .72; $F(3, 284) = 74.91$, $p < .0001$] of positive affect, and 21% of [Overall R = .46; $F(3, 283) = 24.99$, $p < .0001$] negative affect. Time 1 well-being accounted for substantially more than the demographics in all three cases, namely, time 1 retirement satisfaction accounted for 41%, time 1 positive affect accounted for 44%, and time 1 negative affect accounted for 16% of the variance in their time 2 counterparts.

Results

The bottom diagonal of Table 1 reports the significant correlation coefficients for the main study variables. Descriptive statistics are reported in the lower half of the table. Overall, the correlations show accordance with the hypotheses of the present study except

the coefficients which suggest no relationship between emotional awareness and time 2 positive interactions.

Path Analyses

PANAS Model

A path model was employed to test the hypotheses described above and depicted in Figure 1(model 1a). This model showed poor fit to the data [Satorra-Bentler Scaled Chi-Square Statistic = χ^2 (39) =52.98 (p = .07); CFI = .795; NNFI = .664; RMSEA = .04 (CI = .0-.06)]. Guided by theory, we considered the standardized residual matrix and the multivariate Lagrange multiplier to add paths sequentially to improve the fit of the model. Paths from gender to time 2 perceived satisfaction with support ($\chi^2_{diff}(1) = 6.51$, $p < .025$; CFI = .876; NNFI = .791; RMSEA = .03, C.I. = 0-.03), from time 2 positive interactions to positive affect ($\chi^2_{diff}(1) = 4.53$, $p < .05$; CFI = .928; NNFI = .875; RMSEA = .02, C.I. = 0-.05), and from time 1 negative interactions to negative affect ($\chi^2_{diff}(1) = 13.24$, $p < .005$; CFI = 1.0; NNFI = 1.19; RMSEA = .0, C.I. = 0-.03) resulted in significant chi-square differences and progressive improvements in robust model fit indices. To achieve parsimony, four non-significant paths were also deleted. The fit of the indices of the trimmed model were excellent (CFI = 1.0; NNFI = 1.17; RMSEA = .0, C.I. = .0-.03). The path coefficients for this model are presented in Figure 2. Due to its lack of association with any of the model variables, duration retired is not included in the figure. The hypothesis that emotional competence is employed to maintain continuity in social patterns was supported, as awareness predicted time 1 positive interactions, and had indirect effects on time 2 positive interactions (β=.13, $p < .05$), and time 1 and time 2 satisfaction with support (β =.05, $p < .05$; β =.03, $p < .05$, respectively). The indirect

effect of emotional awareness on positive affect was non-significant (β =.02; z = 1.83) Gender was associated with emotional awareness, and had indirect effects on time 1 and time 2 positive interactions (β = .05, $p < .05$; β = .04, $p < .05$, respectively), supporting the prediction that women's higher levels of skill facilitate greater support. However, gender also influenced perceptions of support at time 2 directly. As predicted, time 1 positive interactions had a direct influence on satisfaction with support at time 1, however, they also had indirect effects on time 2 satisfaction with support (β =.18, $p < .05$), and positive affect (β = .12, $p < .05$), through time 2 positive interactions.

As hypothesized, emotional awareness was not related to negative interactions at either time point. Time 1 negative interactions were strongly associated with time 2 negative interactions, indicating that they were highly stable over time. Also, time 1 negative interactions had direct effects on time 1 support satisfaction, and indirect effects on time 2 support satisfaction (β = -.29, $p < .05$), positive affect (β = -.15, $p < .05$), and negative affect (β = .08, $p < .05$), through time 2 negative interactions. Unexpectedly however, time 1 negative interactions had a direct, *negative* relationship with negative affect. In support of the "negativity effect" hypothesis, negative interactions at time 2 had a direct impact on both domains of affect and had a slightly stronger impact on positive affect than that of positive interactions. Contrary to hypotheses, time 2 support satisfaction showed no relationship with affect, suggesting it does not mediate the impact of positive and negative interactions on emotional well-being for retirees. Contrary to hypotheses, duration retired was not related to emotional awareness.

Retirement Satisfaction Model

Table 1. Standardized Residuals[b] for the Baseline Models, Correlations, and Descriptive Statistics (N=285)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1) LEAS	-	-.01	.01	-.00	.00	.00	.05	.04	.06	.02	-.00	.00
2) # Positive Interactions T1	.16**	-	.06	-.00	.07	-.02	.05	.15	.01	-.02	.10	-.03
3) # Negative Interactions T1	.02	.06	-	.07	.00	.02	.03	.02	.04	-.13	-.07	.05
4) # Positive Interactions T2	.08	.60**	.07	-	.09	-.01	-.03	.10	.12	-.02	.05	.05
5) # Negative Interactions T2	.0	.06	.73**	.08	-	-.00	.01	-.00	-.00	.02	-.02	-.04
6) Perceived Support Satisfaction T1	.04	.19**	-.23**	.14*	-.18**	-	-.01	-.00	.01	.08	-.01	.00
7) Perceived Support Satisfaction T2	.07	.21**	-.25**	.15*	-.29**	.39**	-	-.00	-.00	.00	.15	-.05
8) Retirement Satisfaction T2	-.04	.15*	-.28**	.15*	-.36**	.23**	.27**	-	-	-	.06	-.06
9) Positive Affect T2[c]	-.04	.16**	-.17**	.24**	-.21**	.16**	.22**	.56**	-	-.13	-.04	-.02
10) Negative Affect T2[c]	.08	.03	.25**	.04	.40**	-.07	-.07	-.33**	-.23**	-	.05	.00
11) Gender[a]	.24**	.16**	-.06	.07	-.01	.0	.16*	.03	.08	.13*	-	.00
12) Duration Retired (years)	-.16**	-.05	.03	.01	-.04	-.00	-.02	.08	.03	-.04	-.11	-
Descriptive Statistics												
Mean	31.13	41.04	20.45	41.01	19.64	5.13	5.10	5.09	37.41	15.80	-	2.24
SD	4.90	8.23	6.67	9.04	6.58	.78	.90	.81	6.28	5.79	-	.72

Note. Correlations are in the lower left diagonal and standardized residuals for the baseline models are in the upper right diagonal. An exact zero is represented by .0. [a] coded as 0=male, 1=female. [b] the standardized residuals between gender, duration retired, LEAS, positive and negative interactions, and perceived support were the same, or fluctuated only slightly between the PANAS and Retirement Satisfaction models.

[c] correlations and descriptive statistics are based on non-residualized scores. * $p < .05$; ** $p < .01$.

The path model employed to test the study hypotheses for retirement satisfaction is depicted in Figure 1 (model 1b). When applied to the data using the EQS program, this model showed good overall fit to the data [χ^2 (31) = 32.41, p =.39; CFI = .98; NNFI = .96; RMSEA = .01 (CI = .0-.05)]. However, standardized covariance residuals reported in the top diagonal of Table 1 greater than .10 also indicate areas of poor fit. Guided by theory, we considered the standardized residual matrix and the multivariate Lagrange multiplier to add paths sequentially to improve fit. Similar to the PANAS model, a path was added from gender to perceived satisfaction with support resulting in a significant chi-square difference [$\chi^2_{diff}(1) = 5.63$ p <.01] and improved fit indices (CFI = 1.0; NNFI = 1.10, RMSEA = .0, CI = 0-.04). An additional path was also added between time 1 positive interactions and retirement satisfaction which resulted in a significant chi-square difference [$\chi^2_{diff}(1) = 7.70$, p <.005] and improved fit indices (CFI= 1.0; NNFI = 1.34; RMSEA= .0, (C.I. = .0 - .02)]. To achieve parsimony, three non-significant paths were deleted, and this resulted in a non-significant chi-square difference between the more complex and trimmed models [i.e., $\chi^2_{diff}(3) = 2.97$]. Model fit deteriorated slightly but remained excellent (CFI = 1.0; NNFI = 1.28; RMSEA = .0, CI = .0-.02). The path coefficients for this model are presented in Figure 3. Due to its lack of association to any of the variables, duration retired was not included in the figure.

The direct and indirect relationships observed between duration retired, gender, level of emotional awareness, positive and negative interactions, and satisfaction with support remained the same as the PANAS model. Time 2 negative interactions predicted retirement satisfaction directly, to a slightly stronger degree than time 2 positive

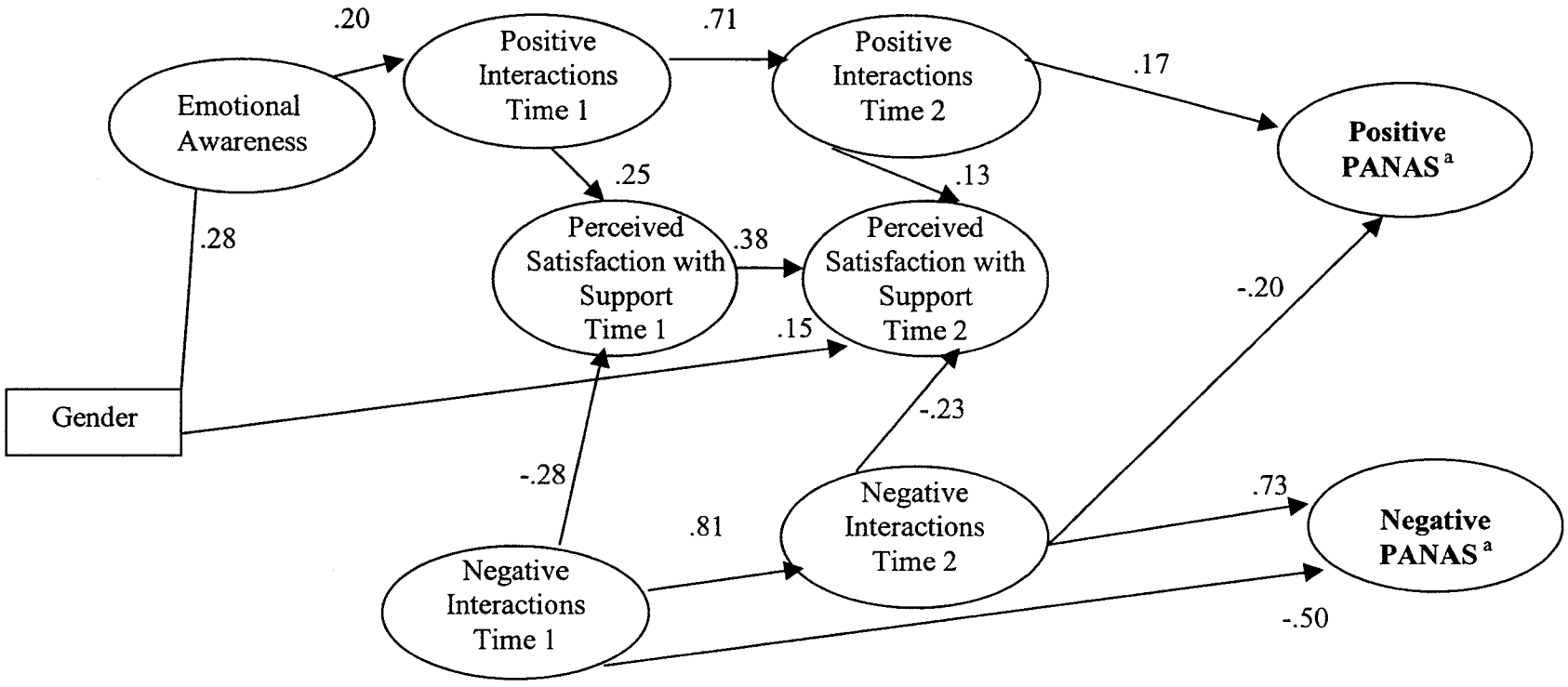

Figure 2. Final Model 1a of the relationships between gender, emotional awareness, time 1 and time 2 social interactions, time 1 and 2 satisfaction with support, and positive and negative affect. Satorra-Bentler χ^2 (39) = 32.74, p =.80; CFI= 1.0; Bentler-Bonett NNFI = 1.17; RMSEA = 0 (CI = .0-.03); R-Squared statistics: emotional awareness = .09; positive interactions T1 = .04; satisfaction with support T1= .14; positive interactions T2 = .50; negative interactions T2 = .65; satisfaction with support T2 = .30; positive panas= .07, negative panas = .19 [a] Health and finances were statistically controlled.

interactions offering additional support for the "negativity effect". Also, level of emotional awareness and time 1 negative interactions evidenced significant, indirect effects on retirement satisfaction through their relationships with time 1 positive interactions ($\beta = .04$, $p < .05$) and time 2 negative interactions ($\beta = -.19$, $p < .05$) respectively. Contrary to hypotheses, support satisfaction did not mediate the impact of negative interactions on retirement satisfaction, and duration retired was unrelated to emotional awareness.

To confirm the causal direction of positive and negative interactions on perceived satisfaction with support, two new models were compared to the existing models in which the direction of the relationships between time 1 and 2 positive and negative interactions and time 1 and 2 perceived satisfaction with support were reversed; the latter reflecting the predictions of the "social-cognitive" model of social support (Lakey et al., 2004). The Akaike Information Criterion (AIC) fit indices for the existing models (i.e., PANAS = –38.75; Retirement Satisfaction = -42.17) were compared to the AIC's of the new models (i.e., PANAS = -24.77; Retirement Satisfaction = -25.993). Smaller values for AIC indicate better fitting models, offering support for the hypotheses of the present study. Thus, the frequency with which retirees experience positive and negative interactions is less likely to be a manifestation of pre-existing perceptions of support satisfaction, but rather, occurs independently of perceived satisfaction with support, and also influences support satisfaction ratings.

Discussion

The main goals of the present study were 1) to examine emotional awareness longitudinally, as a possible mechanism underlying continuity in positive social support

differentially for male and female retirees; 2) to test a putative "negativity effect" on long-term well-being in retirement after controlling for time 1 interactions, time 1 well-being, and demographic factors; and 3) to test the mediating role of support satisfaction between positive and negative social interactions and long-term well-being. This study was designed to build on cross-sectional results (see Beaman et al., 2008) suggesting that emotional awareness underlies positive support in retirement, that negative interactions exert a stronger impact on well-being in retirement, and that perceived satisfaction with support partially mediates the influence of negative interactions.

The "Continuity Strategy" of Emotional Awareness

As predicted, women showed higher levels of emotional awareness compared to men, leading to greater positive interactions and support satisfaction longitudinally in retirement. Gender differences in emotional awareness have been observed previously, and are proposed to be due to socialization processes that facilitate women's ability to access and use emotional information (Ciarrochi et al., 2005). Thus, the present study extends research by showing a link between gender differences in this skill and greater positive support in retirement. Recent research has also shown that emotional awareness is heightened in both men and women when their motivation to use it is experimentally manipulated (Ciarrochi et al., 2005), and it is linked to the intention to seek support in times of perceived need (Ciarrochi, Deane, Wilson, & Rickwood, 2002). Interpreted in the context of CT, SST, and previous research, the present findings thus suggest that changes associated with early retirement likely heightened motivation for emotional goals, and therefore, awareness of emotional needs, leading to greater seeking or creation of positive support. Although retirees' emotional awareness was directly related to the

frequency of time 1 positive interactions, it was only indirectly related to long-term positive support, suggesting that once greater support is created through this skill early on, the support remains a year later, and thus, reliance on this skill likely diminishes with time.

Negative interactions occurred half as frequently as positive interactions at both time- points and were not associated with emotional awareness, however they exhibited stability over time. SST offers several explanations for these findings. First, selective "pruning" in early retirement to eliminate the source of most conflicts, likely resulted in too few negative experiences to detect a statistical association with emotional awareness. Also, conflicts that remain after "pruning" may reflect long-standing difficulties with close ties, the occurrence of which may be difficult to prevent. Although it has been shown that the detrimental impact of negative interactions can be modified, it is not completely eliminated by the strategies proposed by SST, suggesting that these types of conflicts are in fact difficult to prevent (Sorkin & Rook, 2004). Thus, the present study suggests that even though emotional awareness is linked to the mobilization of positive support in times of need, it is likely that much more than awareness is required to *prevent* negative support. For example, previous research has shown that more active strategies in which emotions are "managed" and "used" predict decreases in conflict, while the ability to "understand" or "perceive" emotions exhibit no such relationship (Lopes, Salovey, & Strauss, 2003). Future research is needed to uncover the types of active strategies that may reduce the impact of lingering conflicts with close ties given their disproportionate impact on well-being in retirement.

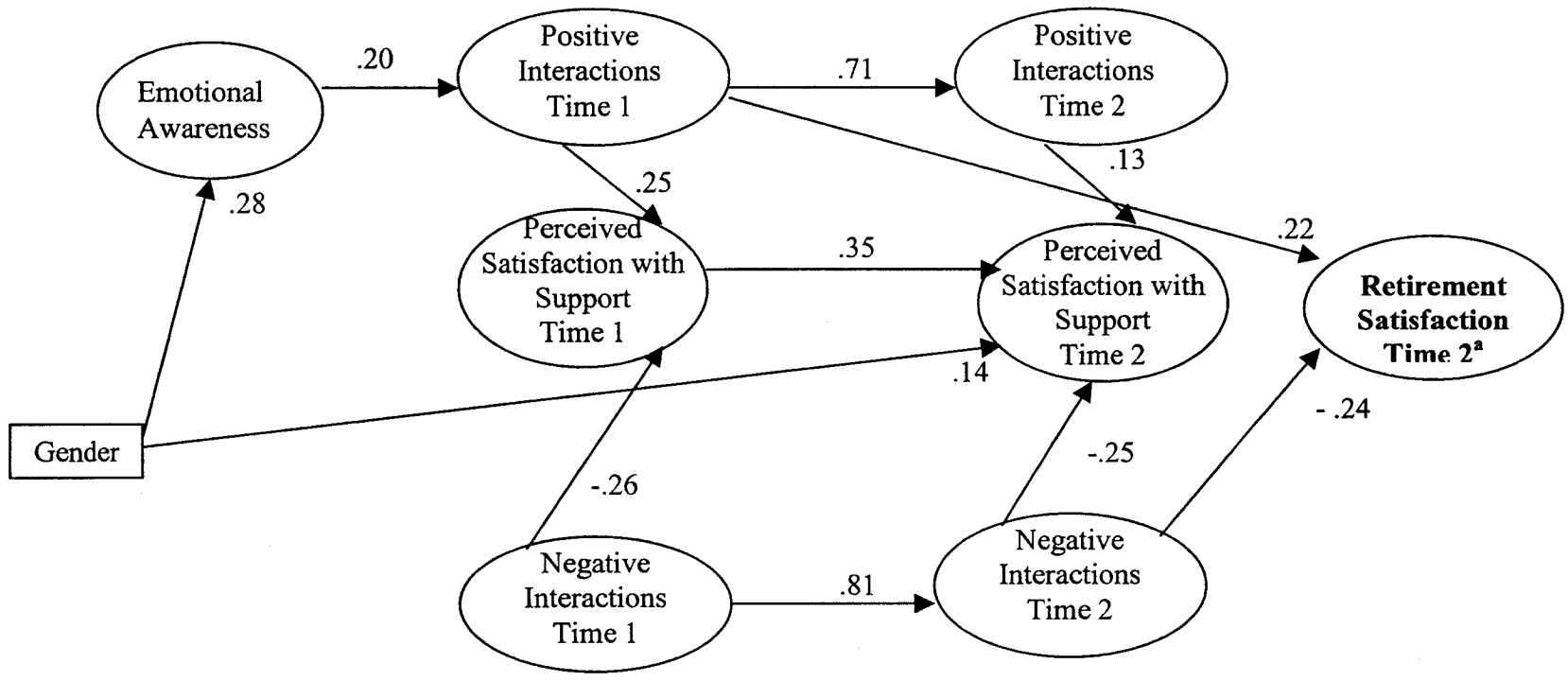

Figure 3. Final model 1b of the relationships between gender, emotional awareness, time 1 and time 2 social interactions, time 1 and 2 satisfaction with support, and retirement satisfaction: Satorra-Bentler $\chi 2(31) = 19.82$, $p = .94$; CFI= 1.0; Bentler-Bonett NNFI = 1.28; RMSEA = .0 (CI = .0-.02); R-Squared Statistics: emotional awareness = .09; positive Interactions T1 = .04; satisfaction with support T1= .13; positive interactions T2 = .51; negative Interactions T2 = .65; satisfaction with support T2 = .28; retirement satisfaction= .10; [a] age, health, education and finances were statistically controlled.

The "Negativity Effect"

Consistent with previous research, negative interactions exhibited stability over time and had potent effects on well-being (Krause & Rook, 2003). The present study extended previous research on negativity effects by employing a sample of recent retirees, using a multi-component measure of well-being, and by controlling for the confounding effects of time 1 interactions and well-being, as well as demographics. Stable negative interactions decreased positive emotions and satisfaction, and increased negative emotions in retirement, suggesting that negative interactions are so potent that they "spill-over" into positive affective domains (Rook, 2001). In accordance with SST and previous research, it is likely that these stable, negative interactions occurred in the context of a "pruned" network of mainly close ties (Antonucci et al., 1998; Sorkin & Rook, 2004). It has previously been shown that conflict remains most stable in the marital relationship due to the higher frequency of contact (Akiyama, Antonucci, Takahashi, & Langfahl, 2003). Marital quality has also been linked to retirement adjustment suggesting that the potency of negative interactions in the present study, in which 63% of the sample was married, may be largely explained by stable, marital conflicts (Kim & Moen, 2002; Kupperbusch, Levenson, Ebling, 2003). For example, marital negotiations with respect to the timing of retirement predict reduced satisfaction and negative affect for male and female retirees over the long term (Szinovacz & Davey, 2004). Given their pervasive impact, more research is needed to understand the most prevalent sources of negative interactions in retirement such that interventions may be developed accordingly.

Although stable negative interactions had potent, negative effects, negative interactions occurring only at time 1 decreased negative affect in the long-term. This is further support for the potency of negative interactions, as it suggests that negative interactions can both increase and decrease negative affect. For example, disagreements that were resolved, or occurred within relationships that were terminated in early retirement likely have a powerful impact on negative affect. This scenario seems particularly likely in the context of early retirement where, for example, contentious issues with colleagues may have finally been resolved, or contact with the source of the conflict ceased altogether. Another explanation for this unexpected effect is that some interactions with close ties may have been perceived early on to be negative but proved later to be supportive. For example, some interactions may have lost their "negativity" once the initial stress associated with the retirement transition dissipated. In fact, it has recently been shown that life stress exacerbates the impact of negative interactions on emotional distress (August, Rook, & Newsom, 2007), and the 18% of retirees in the present sample who reported difficulty adjusting in the first few months of retirement also had significantly greater negative interactions ($r = .19$, $p < .01$). Also, it is possible that interactions that were initially interpreted in a negative manner lost their negativity later, in the context of supportive interactions with the same network member. There is evidence of this pattern over shorter time spans (i.e., within the same day), in couples coping with one partner's disability (Kleiboer et al., 2007). These findings are in line with research showing that social relationships with close ties are often associated with greater ambivalence than those with distal ties (Fingerman et al., 2004). When ambivalence in social relationships is accounted for, supportive interactions have a

similar or greater impact on well-being than negative interactions (Uchino, Holt-Lunstad, Smith, & Bloor, 2004; Newsom et al., 2005). However, much of this research has been cross-sectional. Future research should include measures that address ambivalence in close relationships longitudinally, such that the true impact of positive versus negative interactions can be better understood.

Positive Interactions

Compared to negative interactions, positive interactions appeared to have less potent effects on well-being in the long term; both in terms of their lower magnitude and their lack of "spill-over" into the negative affective domain. This is in line with previous research with older adults showing that although positive interactions can influence "positive" components of well-being, they fail to predict negative affect (Rook, 2001; Newsom et al., 2003; Newsom et al., 2005). This study extends existing research by documenting this trend with respect to retirement satisfaction. However, depending on the timing of positive interactions, different effects were observed. Positive interactions that occur only early on in retirement, and are less stable, are consequential to retirement satisfaction, whereas ongoing positive interactions underlie positive affect long term. It has been shown that judgments of satisfaction within particular life domains (e.g., retirement, marriage) tend to be based on information that is specific to that domain (Kim-Prieto et al., 2005). For example, one study showed that after controlling for numerous psycho-social variables, variables such as attitude toward retirement, satisfaction with leaving work, feeling recognized for work, pursuing interests, and feeling useful were most important for retirement satisfaction (Desrochers et al., 2002). Positive interactions relevant to the domain of retirement would be most likely to occur in

the first phases of retirement for example, interactions involving formal recognition of the retiree's contributions (e.g., a retirement party), mentoring interactions between the retiree and his or her successors, or formal help the retiree received planning for retirement. Future research is necessary to further investigate the types of early interactions that are most important for well-being. Finally, positive interactions occurring only at time 1 did not impact positive affect at time 2, however this finding makes sense in the context of SST, as less stable interactions would likely reflect interactions occurring outside the "pruned" network of close ties, and therefore have less consequence for affect regulation.

The Mediating Effect of Support Satisfaction

It was hypothesized, in line with SST, that some positive and negative interactions would be evaluated in the context of overall satisfaction with support, thereby mediating their impact on well-being. Although time 2 positive and negative interactions were associated with perceptions of satisfaction, the latter showed no relationship with long-term well-being. It is possible that this lack of effect is an artifact of the statistical methodology in which the variance associated with time 1 well-being was removed prior to conducting the SEM analyses. Namely, given that perceived satisfaction with support is widely accepted as a relatively stable construct (Krause, 1995), and time 1 and time 2 well-being were highly correlated, removal of the variance associated with time 1 well-being would have also removed shared variance between time 1 and 2 support satisfaction, possibly leaving very little variance left over to detect a relationship between time 2 support satisfaction and well-being. Indeed, when the analyses were carried out without removing variance associated with time 1 well-being, the models continued to

show excellent fit to the data, however, an additional, significant path emerged between time 2 support satisfaction and time 2 Retirement Satisfaction ($\beta = .21$, $p < .05$), and the path between time 2 support satisfaction and Positive Affect approached significance ($\beta = .13$, $p < .06$). Thus, there is some evidence that the effects of some interactions on well-being are dependent on overall satisfaction with support. However, failure to control baseline well-being makes it impossible to rule out the possibility that well-being influenced perceived satisfaction ratings.

Another explanation for the absence of a mediating effect is that the long-term impact of support satisfaction was simply overshadowed by the potency of negative interactions in this sample of resource-rich retirees. Support satisfaction was rated as very high overall by this sample, as evidenced by the high mean scores and narrow distribution. The few negative interactions that occurred in the context of retirees' stable, positive support may have been more likely to stand out in the long-term, in stark contrast to the baseline, high levels of satisfaction with support. Future research with retirees who show a wider range of satisfaction with support is needed in order to test this hypothesis. For example, retirees with high, medium, and low levels of support satisfaction could be compared in terms of the impact that negative interactions have on well-being, and the likelihood that perceived satisfaction may have a mediating role. Finally, although social cognitive theorists would likely explain the lack of association as due to the fact that perceived satisfaction with support "causes" positive and negative interactions, this alternate model showed poor fit to the data when tested with the present sample of retirees.

Conclusions and Future Directions

The findings of the present study are in line with Continuity Theory, which predicts that despite changes with retirement, internal skills facilitate continuity in social support and well-being. Thus, interventions that encourage retirees to engender awareness of their own and others emotional needs would likely be of benefit in terms of facilitating long term support and well-being. Such interventions may be of particular importance to newly retired men. It is noteworthy however, that although emotional awareness facilitates positive support, it is unrelated to negative support in the long term. Future research is needed to uncover the types of skills required for the prevention of negative interactions in retirement, especially in light of their disproportionate impact on well-being. Socio-emotional selectivity theory predicts that these conflicts are most likely to occur within a small network of close ties. Preliminary research that identifies the marital relationship as a main source of conflict in older adults, and links marital disagreements to retirement adjustment, highlights this particular relationship as a useful starting point for future investigations.

Less stable positive and negative interactions also had long term effects on well-being, suggesting that rare interactions with close ties, or early interactions that occur outside the close network, can also have a long term impact on well-being. However, recent research suggests that these effects could also be explained by the ambivalence inherent in close relationships. Thus, it is necessary that future research with retirees measure positive, negative, and ambivalent interactions, in order to truly understand the mechanisms through which social support impacts well-being in retirement. Despite its mediating role in previous research, perceived satisfaction with support showed no relationship. This is contrary to the predictions made based on SST, that retirees may

consider interactions in the context of their overall satisfaction as a way to mitigate negativity. This finding may be an artifact of the statistical methodology employed in the present study, in which the variance associated with time 1 well-being was removed; however, it could also indicate that negative interactions had a strong effect when contrasted against retirees' otherwise high baseline levels of support satisfaction. Future research is needed with retirees who report varied levels of support satisfaction, such that the mediating role of this variable may be tested and generalized to the wider population. Furthermore, the impact of socio-emotional variables measured in early retirement must be followed up beyond one year to determine the extent of their effects on adjustment to retirement.

CHAPTER FOUR: FINAL CONCLUSIONS, LIMITATIONS, AND FUTURE DIRECTIONS

Emotional Awareness as a "Continuity Strategy"

In line with Continuity Theory, the present study predicted that emotional awareness is a stable cognitive-developmental skill that would be drawn upon in retirement to promote "continuity" in social support and well-being. In study 1, it was hypothesized that emotional awareness would be positively associated with duration retired, reflecting retirees' increased motivation to facilitate social support as retirement progressed and more disruptions in their network putatively occurred. In fact, the opposite trend was found in study 1, suggesting that retirees were less motivated to rely on emotional awareness to achieve these goals the longer they were retired. Thus, predictions were refined for study 2, and it was hypothesized that emotional awareness would be more strongly associated with social support earlier, versus later in retirement, when disruptions in the network are likely salient and more resources were perceived by retirees to be required to boost social support.

Although bivariate correlations showed that duration retired was negatively associated with emotional awareness in study 2, this relationship did not remain in the context of the overall model. Nonetheless, emotional awareness predicted greater positive interactions at time 1 directly, and greater positive interactions at time 2 only indirectly. This suggests that emotional awareness was important early-on in retirement, and that the positive support that was facilitated early was maintained a year later, likely decreasing motivation to rely on emotional awareness later in retirement. In study 1, emotional awareness was also directly related to greater perceived availability of support

in the short term. These findings remained after controlling for important demographic variables and baseline well-being. Thus, the results of the present studies are in line with the main hypotheses and Continuity Theory (Atchley, 1999), which predicts that internal skills facilitate continuity in social support and well-being across retirement; as well as Socio-emotional Selectivity Theory (Carstensen, Fung, & Charles, 2003), which predicts that heightened awareness of life-time remaining underlies increased motivation to create positive social experiences.

The results suggest that retirement interventions that acknowledge retirees' existing abilities to be aware of their own and others' emotions would likely be of benefit in terms of facilitating long-term support and well-being. These interventions may be of particular importance to newly retired women, whose skills in this respect can be emphasized. The current research is limited however, in its use of level of emotional awareness as an indicator of the degree to which retirees relied upon this skill at earlier and later time points. However, even though emotional awareness is argued to be a cognitive-developmental skill that is relatively stable (Lane & Schwartz, 1987), one study of younger adults showed that individuals (e.g., men) who may not have been socialized to employ emotional awareness in their interpersonal interactions, can improve on this ability when context motivates them to do so (Ciarrochi, Hynes, & Crittenden, 2005). Emotional awareness was only measured at baseline, in line with the assumption that levels of this skill are stable. Assessing its relationship to social support at both time points would have allowed for a direct test of whether changes in motivation to employ this skill lead to actual increases in emotional awareness at time 1 and subsequent decreases in this skill at time 2. In the absence of current, validated measures of retirees'

degree of "reliance" on emotional awareness, this would have provided more support for the argument that context (i.e., different time points during retirement) motivate retirees to rely more or less on this skill to facilitate support. Future research is needed with older adults to clarify whether this skill can in fact be increased, or whether it remains relatively stable across contexts, since clinical interventions based on either of these outcomes would differ significantly. For example, if emotional awareness is understood to be a stable, relatively immutable trait, interventions could focus on helping retirees with low levels of emotional awareness (i.e., men) improve other skills to compensate for deficits in this area. Alternatively, clinical interventions could focus on providing training for this skill should research indicate that actual levels of this skill can be modified in older adults, and that such modifications are associated with improved social support in retirement.

Emotional awareness was unrelated to negative interactions in study 1, and the latter were shown to have a potent impact on well-being despite the fact that they occurred half as frequently as positive interactions at both time points. Because it was initially hypothesized that emotional awareness would underlie both positive and negative interactions, the results of study 1 were interpreted within the framework of Socio-emotional Selectivity Theory (SST) to refine predictions for Study 2. In line with SST, it was presumed that life-time remaining became more salient with retirement, and that because of this, retirees likely employed strategies to limit the effect or occurrence of negative social experiences, and promote positive social experiences (Carstensen et al., 2003). It was thus reasoned that selective "pruning" in early retirement to eliminate the source of most conflicts resulted in too few negative experiences to detect a statistical

association with emotional awareness. Furthermore, the few negative interactions that remained after "pruning" were presumed to primarily reflect persistent difficulties with close ties that were difficult to prevent (Sorkin & Rook, 2004; Rook, 2003). It was argued that more than awareness of emotions is likely needed to prevent reoccurring conflict with close ties, thus, future research should examine the "active" strategies retirees employ to reduce lingering conflicts in the name of emotion-regulation goals. One limitation of the present research however, is that the retirees' emotion regulation goals were not measured directly. It has recently been shown that individual differences in the degree to which older adults value emotion regulation goals predicts the types of strategies they employ to manage conflicts (Heckman-Coats & Blanchard-Fields, 2008). Thus, those who place more value on emotion-regulation goals are more likely to employ active strategies such as problem-solving to resolve conflict, whereas those who place less value are less likely to employ such strategies. Many factors could underlie differences in the importance retirees place on emotion regulation goals and therefore, the strategies they employ for conflict management. Such factors could include age, gender, composition and size of social network at retirement, other important life events, or duration retired. Future research should assess individual differences in the importance retirees' place on emotion-regulation goals throughout the retirement transition, and how this may impact the strategies employed, the frequency of negative interactions, and well-being in retirement.

Consistent with hypotheses and previous research (e.g., Lane et al., 1998), women showed higher levels of emotional awareness, providing evidence to support the common assumption that women's superior socio-emotional skills lead to improved social support

networks in later life (Antonucci, 2001; Barbee et al., 1993; Fernandez, Mutran, Reitzes, & Sudha, 1998; Krause & Shaw, 2002). Gender also showed direct relationships with perceived availability of support and positive and negative affect in study 1, indicating that gender differences in factors other than emotional awareness were related to social support and well-being in retirement. This effect was explained by research showing that women exhibit higher affect intensity than men across the lifespan, leading to the paradoxical finding that women report both greater positive and negative affect than men (Fujita, Diener, & Sandvik., 1991). Even though gender predicted support satisfaction, it did not predict well-being directly in study 2. Controlling for baseline levels of affect in the analyses at time 2 likely accounted for any variance attributable to affect intensity, resulting in no direct relationship between gender and time 2 affect. However, affect intensity was not measured directly. Future research could measure affect intensity in order to control for its potentially confounding effects with respect to men and women's reports of well-being in retirement.

The "Negativity Effect" in Retirement

Numerous studies have shown that although negative interactions decrease with age, they have a more potent impact on older adults' well-being than positive interactions (e.g., Kim & Nessleroade, 2003; Newsom, Nishishiba, Rook, & Morgan, 2003; Newsom Rook, Nishishiba, Sorkin, & Mahan, 2005). The present studies extended this research by documenting the same trend in a sample of recent retirees over a one-year period, employing a multi-component measure of well-being, while also controlling for demographics and baseline well-being. Specifically, it was shown that compared to the "domain-specific" effects of positive interactions, negative interactions impacted both

positive and negative domains of well-being; and they exerted a slightly stronger impact than positive interactions did on positive aspects of well-being. The negativity effect observed in the present research is in line with decades of studies showing disproportionate effects for negative over positive events with respect to a wide range of psychological phenomena (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). The ubiquity of this trend across different fields of psychology is explained as an evolutionary process of adaptation whereby attunement to negative events, memories, and emotions motivates us to attempt to rectify problems, improving our chances of survival (Baumeister et al., 2001). Within this theoretical framework, positive interpersonal events would not be expected to have a widespread or potent impact on well-being compared to negative interpersonal events as they have less adaptive value.

However, recent research suggests that defining interpersonal events with close ties as strictly "positive" or "negative" may be too simplistic a characterization since positive and negative attitudes often exist with the same tie simultaneously, a phenomenon often referred to as "ambivalence" (Lowenstein, 2007). For example, adult children report that over one-quarter of their relationships with their parents and in-laws are characterized by ambivalence (Willson, Shuey, & Elder, 2003), and ambivalence is more likely to occur in the context of relationships with close ties (Fingerman & Birditt, 2003). It was recently shown that when young adults were asked to identify the number of network members that were aversive, supportive, or both aversive and supportive (i.e., "ambivalent"), the number of ambivalent ties had a stronger association with negative outcomes than purely aversive ties (Uchino et al., 2004). Also, a recent study employed finer-grained measurements of satisfaction (e.g., "how satisfied are you with the advice

and information you receive?"; Newsom et al., 2005) in which the mediating role of older adults' appraisals of the satisfactoriness of each of the four domains of positive and negative interactions was tested. Older adults' appraisals of the satisfactoriness of positive interactions predicted both distress and positive aspects of well-being, eliminating the disproportionate effect of negative interactions. These results indicate that the ambivalence inherent in these interactions was filtered by the appraisal process, accounting for variance in well-being (e.g., an act of help can be construed as an implication of incompetence). Based on these studies, social support researchers are currently advancing more comprehensive models that account for these three aspects of social relationships, however, no longitudinal studies have been conducted to date (for a review see Lowenstein, 2007).

Furthermore, evidence suggests that ambivalence in close relationships is influenced by late life transitions in which roles change, thus, researchers have begun to emphasize the importance of considering how social structures define social roles that may exacerbate ambivalence in relationships. For example, ambivalence is more likely to occur in the context of caregiving for women compared to men (Willson et al., 2003). On the other hand, ambivalence in parent-child relationships has been shown to decrease in widowhood (Ha & Ingersoll-Dayton, 2008). It is possible that retirement is also a life transition that impacts the degree of ambivalence within certain relationships. In fact, recent research suggests that retirement may cause role disruptions within the marital relationship, as one spouse retires and the other continues to work, leading to increased symptoms of depression in men (Szinovacz & Davey, 2004). Future research could assess ambivalence in different relationships across retirement in the context of higher-

level social structures such as gendered roles after retirement. For example, intergenerational ambivalence may be exacerbated when adult children hold gendered expectations about grand-parenting responsibilities in retirement.

The current study did not explicitly measure ambivalent attitudes toward close ties, therefore, it is possible that the "negativity effects" observed would lessen if this construct had been included. Although the mediating role of overall satisfaction with support was assessed, this measure was broad, and thus not sufficient to capture ambivalence within interactions. However, the present research did provide preliminary evidence that retirees may consider some of their interactions in the context of their overall satisfaction with the support their network provides. It is possible that the negative impact of ambivalence or ambiguity in some interactions was cushioned by consideration of the overall satisfactoriness of support. Although support for this hypothesis was not as strong in the longitudinal analyses, it is likely that the statistical methodology employed and the high levels of satisfaction reported in the present sample made it difficult to sufficiently test this prediction. Future research should employ direct measures of ambivalence longitudinally, and include retirees with more heterogeneous levels of satisfaction with their support networks.

The findings of the present research also highlight that future research is needed to understand why the timing and stability of positive and negative interactions is important for well-being. Although the importance of qualitative versus quantitative aspects of support has been acknowledged by retirement researchers in a broad sense (Bosse, Aldwin, Levenson, Spiro, & Mroczek, 1993), more nuanced measurements of the qualitative aspects of interactions are needed to build on the present research. One

possible research direction could examine whether positive interactions that are specific to work or retirement-related matters have special importance for cognitive aspects of well-being in the long term. For example, formal or informal policies in the workplace that help retirees plan for retirement, or that ensure the retiree's career accomplishments were acknowledged by coworkers, could be investigated as a context within which potent positive interactions may occur. Also, as described above, ambivalence in close relationships could be explored as a possible mechanism underlying the unexpected positive impact of some early, unstable, negative interactions. One factor that is also potentially associated with the timing of interactions is perceived stress, which may modify the impact of early negative interactions on well-being or may interact with the source of the conflict to reduce well-being long-term.

Other general limitations of the present research include the one-year longitudinal design, and the socio-demographic characteristics of the sample. Research indicates that the impact of socio-demographic variables on adjustment to retirement changes over time therefore, the variables measured in the current study must be followed up beyond one year to determine the true extent of their effects on adjustment to retirement. Also, the present sample of retirees was made up of volunteers who reported high levels of health and well-being. Thus, the characteristics of the sample limit the generalizability of the results to relatively "resource-rich" retirees. Also, the present studies did not explicitly account for well-being that may have resulted from social integration through community organizations, neighbours, volunteering, or spiritual activities. It has recently been shown that although age is associated with declines in contact with primary network members, it is positively associated with integration in the wider community (Cornwell,

Laumann, & Schumm, 2008). Thus, measures of community integration should be included in future research as this type of social connectedness may also have benefits for well-being in retirement.

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