

**Positive Solitude: An Examination of Individuals Who Spend Frequent Time Alone**

by

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## **Abstract**

An abundance of empirical research indicates that individuals who spend frequent time alone are less happy than those who are more socially active (Diener & Seligman, 2002). In mass media and popular culture these individuals are commonly referred to as “Loners.” The current study investigates if some individuals who spend frequent time alone report average or higher than average ratings of happiness despite the contradictory trend in research and the negative loner stereotype. The study also provides an empirical description of the loner construct by examining a group of self-declared loners. Five hundred and thirty eight subjects who reported spending frequent time alone completed the Subjective Happiness Scale, the UCLA Loneliness Scale (3), the Social Phobia Inventory, the E-scale of the EPQR-A, the Preference for Solitude Scale and the Relationship Questionnaire. It was found that unhappiness and poor well-being do not necessarily accompany spending frequent time alone, even for individuals who identify as loners. While the majority of participants who reported spending frequent time alone also reported poor levels of well-being, 21.7% of the study’s entire population as well as 20.6% of self-declared loners within that group reported average or high scores of happiness on the Subjective Happiness Scale. Furthermore, they did not report stereotypical symptoms such as high rates of loneliness or social phobia. In addition to challenging the prevailing loner stereotype, these results raise questions about the generalizability of the established correlation between spending frequent time alone and poor well-being. Theoretically relevant constructs such as loneliness, social phobia and extraversion will be discussed. Attention is called for a deeper and more balanced examination of individuals who spend frequent time alone.

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## Chapter 1: Introduction

The correlation between happiness and sociability is robust. Simply put, individuals who frequently engage with others are happier than those who spend significant time alone (Diener & Seligman, 2002). Studies repeatedly find that extraversion is the strongest personality predictor of happiness (Argyle & Lu, 1990) and that interpersonal relationships are more important in influencing happiness than both money and health (Dreifus, 2008).

Although the advantages of extraversion or sociability have been extensively investigated, psychological research on the positive aspects of spending time alone is seldom explored (Burger, 1995; Long & Averill, 2003). The current study is divided into two parts. The first half of the study addresses the issue of happiness and well-being in relation to spending time alone among all participants. The second half of the study addresses a subgroup of self-declared “loners” in an effort to provide a preliminary empirical description of a stigmatized and stereotyped population. It is proposed that a gap in research, combined with the well-known stereotype of the loner, has resulted in generalizations and inaccurate conclusions about those who spend significant time alone. It is argued that loners or individuals who spend frequent time alone have been unfairly pathologized and that spending frequent time alone may not in itself be dysfunctional.

Stereotypes are regularly activated when interacting or thinking about stereotyped groups and can have harmful behavioural and emotional consequences (Bodenhausen & Richeson, 2010). As it relates to this study, the negative loner stereotype is especially concerning.

What is a loner? While the Merriam-Webster’s Dictionary defines the term *loner* simply as “a person who avoids the company or assistance of others” (Loner, 2009), the label is known colloquially as a pejorative term. The stereotype typically depicts loners as disturbed social

misfits: the anxious child who plays alone at recess, the troubled adolescent, the lone traveler, or the tortured artist. Film and crime-series television frequently portray the villain as a loner and the media is quick to characterize suspects or criminals as loners. Recall the high profile cases of Jeffrey Dahmer, the Unabomber, and the Columbine shooters. Today, a quick New York Times news search of the term yields headlines like, “Roommates Describe Gunman as Loner” and “Mad Loner Builds Perfect Bomb” (retrieved April 10, 2009). A search of the term on Urban Dictionary which is updated daily and allows online users to contribute their own colloquial definitions of words, triggered terms such as outcast, lonely, freak, nerd and stalker (retrieved August 11, 2010).

Recently, resistance to the stereotype has emerged. The backlash is especially evident online. Facebook pages with titles such as “I’m a Loner By Choice” and “Loners, Hermits & Solo-Fliers” have been created in an apparent attempt to challenge the prominent negative stereotype and social stigma associated with spending time alone. Facebook alone has drawn over a thousand members who self-identify as loners. In defense of their lifestyle, members post comments such as, “solitude is vital to my physical and mental well-being”, “I don't need others to make me feel happy or important” and “Contrary to popular belief, we are not sad, lonely or weird.”

Online support groups concerned with the loner stigma have also surfaced. In weekly postings, people who claim to be content with their solitary lifestyle publish rants on topics such as the negative perception of women who choose to be single, and the stigma associated with traveling or dining alone (Rufus, 2009).

Blogs dedicated to the virtues of solitude and spending time alone are also becoming popular. Websites such as *The Loner’s Club* and *Hermitary – Resources and Reflections on*



*Hermits and Solitude* feature articles on the subject of solitude, information on related films and books, and an online social forum.

Anneli Rufus' (2003) book, *Party of One: The Loner's Manifesto* is also dedicated to the topic. A self-proclaimed and proud loner, Rufus argues that loners should embrace their solitary inclinations and society should recognize loners as a "vital force" in the world, rather than "damaged goods." Other books such as, *The Introvert Advantage. How to Thrive in an Extrovert World* (Laney, 2002) and *Living Introverted: Learning To Embrace The Quiet Life Without Guilt* (Lambert, 2009) examine the benefits of introversion and the rewards of spending time alone.

### **Research Significance and Purpose**

Due to the gap in research and the prevalence of the negative loner stereotype very little is known about individuals who spend frequent time alone who report positive well-being. The first part of this study discusses such a group and examines how they differ from individuals who do not function as positively.

The second part of this study separately addresses the loner construct and stereotype. When we use the label *loner*, whom or what are we referring to? The stereotype typically portrays the loner as dysfunctional but a wealth of anecdotal evidence suggests that some individuals who identify as loners manage to live happy and fulfilling lives. Differences between self-declared loners and the study's population of individuals who spend frequent time alone, but do not declare themselves as loners, are investigated in an effort to describe loners beyond stereotypic content and to contribute to a working definition of the loner construct.

By identifying counter stereotypes within this population, it is hoped that awareness will be raised about the diversity of experiences for those who spend frequent time alone.

## **Research Questions**

1. Is there a subgroup of individuals who spend frequent time alone who are also happy?
2. In the sample, how do individuals low on reported happiness differ from individuals average or high on reported happiness on measures of loneliness, social phobia, extraversion, preference for solitude and attachment style?
3. How do loneliness, social phobia, extraversion, preference for solitude and attachment style contribute to overall happiness?
4. How do self-declared loners differ from self-declared nonloners in the studied population and how can the loner construct be described?

## CHAPTER 2: Literature Review

### Well-Being and Social Contact

The importance of social activity and human relationships as it relates to well-being has been a popular topic within the social sciences. Classic studies such as Emile Durkheim's (1973) suicide research showed that social relationships were not only protective but were essential in fulfilling basic human needs. Today a flood of literature supports the notion that social contact and interpersonal relationships promote both physical and mental health (Cohen & McKay, 1984; Deiner & Seligman, 2004; Haller & Hadler, 2006; Long & Averill, 2003; Storr, 1988). In fact, the best predictor of happiness is human relationships and the amount of time that we spend with family and friends (Dreifus, 2008). Diener and Seligman's (2002) research on happiness also indicates that, relative to average or unhappy people, the happiest people are those who are highly social, extraverted and spend the least time alone. People report more positive emotions when they are in the company of others than when they are by themselves (Pavot, Diener, & Fujita, 1990) and married people are happier than single people (Haller & Hadler, 2006). Social relationships also affect survival. For example, a greater network of friends is protective against mortality in older adults (Giles, Glonek, Luszcz, & Andrews, 2005) and in women diagnosed with breast cancer (Kroenke, 2006)

In addition, a large body of literature supports the association between poor well-being and poor interpersonal relationships and social inactivity (Chappell & Badger, 1989; DeLongis, Folkman, & Richard, 1988; Hammen, 1999). Social isolation correlates strongly with poor well-being (Baumesiter, 1991) and the least happy people spend the most time alone (Seligman et al., 2002). In addition, people with few friends have higher rates of mental illness than those with

more friends (Hintikka, 2000). Jenkins et al. (1997) also found that unmarried people, single parents, and people living alone had higher than average rates of mental illness. Senior citizens who do not have close friends or companions also report lower levels of happiness than those who do have close companions (Chappell & Badger, 1989). The direction of causality is of course still up for debate. Does well-being affect social engagement or does social engagement affect well-being?

Despite the strength of these correlations, research findings represent average trends rather than individual experiences. The current study is concerned with a subgroup of participants who have not been recognized in past research - individuals who spend frequent time alone who do not display the patterns of dysfunction reflected in the literature.

The relationship between happiness and social activity is clearly complex. In the next section, five theoretically relevant variables hypothesized to be involved in the relationship between happiness and spending frequent time alone are discussed. First, two constructs related to well-being (loneliness and social phobia) for this specific demographic are reviewed. In addition, three pertinent constructs of interest (extraversion, attachment style and preference for solitude) are reviewed due to their usefulness in describing this specific demographic as well as their possible role in well-being. These constructs are discussed in the literature review and later as measures within the methods, results and discussion sections of the current study.

### **Social Phobia**

According to the DSM-IV-TR, social phobia or social anxiety disorder is a commonly occurring mental disorder which is characterized by persistent fear or distress and anxious anticipation or avoidance of social or performance situations. The diagnosis is given if these symptoms interfere significantly with the individual's occupational routine, daily functioning or

social life or if the person is significantly distressed about having the phobia. Studies indicate a lifetime prevalence of 3% to 13% (American Psychiatric Association [*DSM-IV-TR*], 2000)

Social phobia is co-morbid with mood disorders such as major depressive disorder, dysthymia, and bipolar disorder (Kessler, Wittchen, Stein, & Walters 1999). In addition, socially phobic patients are more likely to receive diagnoses of additional anxiety disorders and alcohol and substance abuse or dependence (Ameringen, Mancini, Styan, & Donison, 1991). Socially phobic patients are more likely to report negative self-images when in anxiety provoking social situations than non socially phobic patients (Hackmann, Surawy, & Clark, 1998) and are more likely to attempt suicide (Davidson, Hughes, George & Blazer, 1993). In addition, social phobic patients report lower quality of life (Safren, Heimberg, Brown, & Holle, 1998). Social phobia is also correlated with antisocial behaviour, reduced social interaction and poor social support (Davidson et al., 1993).

Due to the relationship between social phobia and poor well-being as well as the correlation between social phobia and reduced social interaction, social phobia was reviewed here and was selected as a measure of interest for the research population.

## **Loneliness**

Loneliness is a common experience, described as an individual's subjective perceived social isolation (Lauder, Mummery, Jones, & Caperchione, 2006). In defining loneliness, De Jong Gierveld (1987) states,

Loneliness is a situation experienced by the individual as one where there is an unpleasant or inadmissible lack of (quality of) certain relationships. This includes situations in which the number of existing relationships is smaller than is considered

desirable or admissible, as well as situations where the intimacy one wishes for has not been realized. Thus loneliness is seen to involve the manner in which the person perceives, experiences, and evaluates his or her isolation and lack of communication with other people. (p. 73)

While loneliness is a state commonly associated with an absence of interpersonal relationships (De Jong Gierveld, 1998), individuals with few social relationships are not necessarily lonely (Wenger, Davies, Shatahmasebi, & Scott, 1996). As West, Kellner, and Moore-West (1986) note, physical isolation in itself does not cause loneliness; loneliness is a subjective state and can only occur if individuals perceive themselves or their lives as lonely.

Loneliness is negatively correlated with happiness (Neto, 2001) and affects individuals across the lifespan (Caioppo & Patrick, 2008). It is associated with a host of negative effects including: depression, anxiety, low life-satisfaction, alcoholism, smoking, and obesity. (Lauder et al., 2006; Moore & Shultz, 2005; West et al., 1986). Henry Stack Sullivan (1953) and Fromm-Reichmann (1959) wrote early seminal texts on the subject of loneliness and postulated it to be a major problem in all mental disorders (Loucks, 1980).

Based on the research on the strong correlation between loneliness and poor well-being as well as the association between loneliness and spending time alone, loneliness was reviewed here and was selected as a variable of interest for the research population in this study.

### **Introversion-Extraversion**

Introversion and extraversion are stable personality types (Weaver, 1997) that are highly heritable (Scarr, 1969). Introverts, who make up approximately 25 % of the population (Rufus, 2003) are typically individuals with a greater concern to establish independence and autonomy.

These individuals are usually internally oriented, quiet, introspective, reflective, energy conservative and have limited social relationships (Janowsky, 2001). Introverts also express a greater enjoyment of solitude (Leary et al., 2003). In contrast, extraverts are externally oriented, impulsive, interactive and gregarious (Janowsky, 2001). It is hypothesized that an extrovert derives energy from social contact whereas an introvert derives energy from time alone (Weaver, 1997).

Hans Eysenck proposed a neurobiological difference between the dichotomies (Eysenck, 1967; Eaves, Eysenck, & Martin, 1989), suggesting that differences between the I-E types are due to levels of neuro-cortical arousal (Killgore, Richards, Killgore, Kamimori, & Balkin, 2007). Eysenck claimed that extraverts are under-aroused (they have lower cortical arousal than introverts) and consequently seek external arousal through the company of others. In contrast, introverts, are hypothesized to have low arousal thresholds and can therefore function without requiring high levels of external social stimulation (Hills & Argyle, 2001). Numerous studies have found support for Eysenck's theory. For example, Stenberg, Wendt, and Risberg (1993) found higher levels of cerebral blood flow in introverts, indicating higher cortical activity. Tran, Craig, and McIsaac (2001) also found support for Eysenck's theory when examining differences in electroencephalography (EEG) activity among introverts and extraverts.

While all introverts are not poorly adjusted, there is a wealth of literature supporting the link between introversion and poor well-being and extraversion and happiness (Barnett & Gotlib, 1988; Janowsky, 2000; Pavot et al., 1990; Stewart, 2005). Freud considered extraversion to be a marker of maturity and introversion to be a sign of immaturity (Coan, 1994). Today, extraversion is associated with positive mood across a range of cultures (Stewart, 2005) and studies on the relationship between extraversion and well-being consistently find that extraverts are happier

(Argyle & Luo, 1990; Emmons & Diener, 1986; Hills & Argyle, 2001; Pavot et al., 1990; Williams, 1990).

A number of studies have suggested that introverts are at greater risk for affective disorders. For example, introversion has been implicated as a core personality characteristic in individuals with depressive disorder (Barnett & Gotlib, 1988; Janowsky, 2000; Janowsky, 2001) and is also a risk factor for postpartum depression when combined with high neuroticism (Verkerk, Denollet, Van Heck, Van Son, & Pop, 2005). Higher scores on introversion are also associated with feelings of anhedonia (Loas, 1996) and dysthymia (Angst, 1998).

There is some evidence that introverted individuals are at a greater risk for suicidal ideation and behaviour (Conrod, 2000; Lolas, Gomez, & Suarez, 1991; Yen & Siegler, 2003). For example, introversion has been shown as a risk factor for suicidal behaviour in depressed subjects (Roy, 1998) drug dependent patients and alcohol dependent patients (Roy, 2003).

Introversion has also been linked to a number of anxiety disorders. In a recent study, introverts made up 93.7 % of social phobia patients (Janowsky, 2000). Introversion is also a predictor of posttraumatic stress disorder (Carlier, Lamberts, & Gersons, 1997; Fauerbach, Lawrence, Schmidt, Munster, & Costa, 2000) and agoraphobia is associated with low extraversion (Bienvenu, 2001). In addition, Eysenck and Rachman (1965) found that patients suffering from obsessional disorders and phobias tended to be introverted.

There is some evidence that introverts have less healthy attachment styles than extraverts. Secure attachment and self-reported introversion are negatively correlated and fearful attachment and self-reported introversion are positively correlated (Bartholomew & Horowitz, 1991). Shaver and Brennan (1992) also found that securely attached individuals were more likely to be extraverted on the NEO Personality Inventory.



The construct of introversion/extraversion was reviewed here and was selected as a construct of interest for the research population due to its relationship with well-being as well as its use as a measure of sociability.

## **Attachment**

John Bowlby's (1969) widely known attachment research states that bonds formed between a child and his or her primary attachment figure play a significant role in an individual's later life. Bowlby proposed that cognitive schemas formed in early interpersonal experiences inform our sense of self-worth as well as our ability to trust others in relationships (Ciechanowska, Sullivan, Jensen, Romano, & Summers, 2003)

When attachment theory was first proposed in the late 60's (Ainsworth, 1967), three categories of attachment were identified: secure, anxious-ambivalent, and anxious-avoidant. Secure attachments were proposed to result in trust, autonomy, exploration and growth, whereas insecure bonds produced difficulties with trust, inhibition and withdrawal (Fraley & Phillips, 2009). In the last 40 years, the field of attachment theory has grown considerably and many researchers have expanded on the work of Ainsworth and Bowlby by proposing additional categories or attachment styles (Shaver & Mikulincer, 2009). For example, Bartholomew and Horowitz (1991) developed an adult self-report Relationship Questionnaire consisting of four different attachment prototypes: secure, fearful, preoccupied and dismissing.

Each of Bartholomew and Horowitz's (1991) attachment prototypes are associated with different patterns of well-being and interpersonal experiences in childhood. For instance, the secure attachment organization (the most healthy and adaptive) is correlated with a more adaptive coping style, a more positive self-structure, and more satisfying intimate relationships (Lopez, 2009). Adults who rate high in secure attachment likely received consistently responsive

parenting in childhood. In contrast to the secure attachment orientation, individuals who are predominantly preoccupied in attachment style likely received inconsistent responsiveness from their primary caregiver (Ciechanowska et al., 2003). The preoccupied orientation is correlated with a domineering personality type, low self-esteem, excessive reassurance seeking and poor care giving skills. Adults who rate high in the dismissing attachment category likely received consistent unresponsiveness. This attachment organization is characterized by compulsive self-reliance, defensive self-esteem, aloofness, poor coping strategies, and detached relationships. Finally, fearfully attached adults are believed to have received care giving characterized by rejection (Ciechanowska et al., 2003). This attachment orientation is characterized by chronic vulnerability to stress, unassertiveness, low self-esteem, self-critical depression, and poor social and support seeking skills. (Lopez, 2009). Webster (1998) found that individuals who were high in the secure and dismissing orientations on the Relationship Questionnaire were happier than those who were high in the fearful or preoccupied orientations.

Attachment style was reviewed here and was selected as a variable of interest for the research population due to its relationship with well-being and happiness as well as its association with social behaviour.

### **Preference for Solitude**

In a study examining experiences of solitude, Long and Averill (2003) defined solitude as “a state of being alone- either by oneself, or if in the presence of others, without any social interaction” (p. 579). According to the authors, solitude is most commonly experienced in the home, in a public place such as a coffee shop or in nature.

Many people still do not view spending time alone positively (Buchholz & Catton, 1999) and individuals differ widely in the degree to which they prefer and enjoy time alone (Leary,

Herbst, & McCrary, 2003). Many people actively seek social relationships and frequently engage in social activities while others prefer solitary activities (Leary et al., 2003). Preference for solitude is correlated with the amount of free time people spend by themselves ( $r=-0.37$ ) and the degree to which people rate spending time alone as pleasant ( $r=0.34$ ) (Burger, 1995).

The loner stereotype and research focus on the dysfunctional nature of individuals who spend frequent time by themselves contradicts a history of admiration and respect for those capable of spending significant time alone. Philosophers such as Nietzsche have pointed to the benefits of solitude, suggesting it as essential for self-reflection and intellectual or creative productivity (Storr, 1988). In addition, spiritual leaders in multiple religions have pointed to the benefits of solitude, viewing it as necessary for personal growth and spiritual enlightenment (Storr, 1988).

A number of notable psychologists have theorized about the positive aspects of solitude (Fromm-Rechmann, 1959; Maslow, 1970; Suedfeld, 1982). Winnicott (1958), for example, argued that the capacity to be alone was a marker of maturity.

In a review of the benefits of solitude, Long and Averill (2003) point to a number of positive effects of time spent alone including: increased freedom of choice, self-awareness, opportunity for self-examination, and enhanced spirituality. Storr (1988) also highlights the benefits of solitude in his book *Solitude: A return to the self*, suggesting that time alone allows the individual to process feelings and come to terms with loss. Another commonly cited benefit of solitude is facilitation of creativity. Storr (1988) notes that creativity and scientific breakthroughs frequently occur in solitude. Empirical studies may also support the theory. Csikszentmihalyi (1996) found that individuals who have difficulty spending time alone also have difficulty developing creative talents. Long and Averil, (2003) also speculate that solitude creates increased freedom which in turn facilitates creativity. Preference for solitude was

included as a measure of interest in this study based on its usefulness in characterizing the study's population.

## **Happiness and Positive Psychology**

Until recently American psychology has been dominated by a problem focused approach or disease model of human functioning (Seligman, 2002) and funding has primarily been allotted to research on clinical treatment and the understanding of mental illness rather than mental health and wellness (Seligman & Csikszentmihalyi, 2000). Frustration with this problem-focused model prompted the emergence of the burgeoning field of positive psychology and has since led to a more balanced approach (Gable & Haidt, 2005). Recent positive psychology research has focused on previously neglected areas of study, such as human potential, strength, virtue, and optimism (Seligman & Csikszentmihalyi, 2000). Today, many positive psychologists are researching topics like well-being and happiness in previously neglected populations (Gable & Haidt, 2005).

Although the positive psychology movement has been criticized for failing to recognize the importance of disorder or pathology, positive psychologists contend that it is not their aim to disregard past problem-focused research or treatment. Rather, they aim to integrate positive clinical treatment and positive psychology research into mainstream scientific investigation. (Gable & Haidt, 2005).

This thesis works within a positive psychology framework in hopes of shifting attention from the deleterious consequences of spending time alone to a focus on individuals who manage to function well, despite spending frequent time alone. In keeping with the aim of positive psychology, the aim of this thesis is not to discount previous findings on the negative consequences of spending time alone, but to integrate and recognize alternative positive experiences.

## **Conclusion and Hypotheses**

Studies have shown that social activity is beneficial for well-being and happiness and that infrequent social activity can have harmful effects. Theoretically relevant constructs were described above as they relate to well-being and happiness and spending time alone. These constructs will be discussed again as measures within the study in the following chapters.

While the research is well established and the negative stereotype is well-known, personal observation and online anecdotal data suggest that many individuals who spend frequent time alone appear to do so quite happily. This subgroup is the focus of the current study.

On the basis of the aforementioned research, it was hypothesized by the researcher that the sample of participants who spend frequent time alone as a whole would perform more poorly on measures of happiness, loneliness, social phobia, and attachment style than average. As a whole, this group was predicted to resemble those who have been stereotyped and discussed in the past literature. It was also hypothesized that a more detailed analysis would reveal a subgroup of respondents who would contradict the above research and the loner stereotype. This group was hypothesized to report average or higher than average scores of happiness. Differences in reports of loneliness, social phobia, extraversion, preference for solitude and attachment style were hypothesized to differentiate the two groups, with the happy group performing significantly more positively on the measures related to well-being. Finally, it was hypothesized that a group of individuals within the existing sample would identify as loners and that this group would exhibit unique patterns of functioning.

## **CHAPTER 3: Methods**

This quantitative study examines loneliness, social phobia, extraversion, preference for solitude and attachment style in individuals who spend frequent time alone who are low on reported happiness, henceforth described as “not happy” and individuals who are average/high on reported happiness, henceforth described as “happy.” This research also examines how loneliness, social phobia, extraversion, preference for solitude and attachment style contribute to or predict overall happiness. In addition, self-declared loners are examined on various demographic and psychosocial measures in an effort to understand the loner construct.

### **Ethical Considerations**

This research was approved by the Behavioural Research Ethics Board at the University of British Columbia (see Appendix A). Informed consent was obtained from all subjects prior to participation in the study and all participants remained anonymous. Participants who were interested were able to provide their contact information to partake in a draw for gift certificates to Amazon Books or to have a summary of the results sent to them via email. All contact information was kept separate from the data.

Participants’ data was collected, scored, analyzed and stored in the manner consistent with ethical guidelines. Participants were informed that they had the option of removing their data or terminating at any point throughout the study. Deception was not necessary for the study.

The benefits of participating in the research were made clear to all participants. Specifically, contribution to the advancement of knowledge was emphasized. A comments section at the end of the survey was added so that participants could express concerns or thoughts about the study.

## Survey Design

A survey in the form of self-administered questionnaires was selected for this study due to ease of administration and data exportation, rapid turnaround and low cost. The online survey was used as a substitute for the more traditional paper and pencil survey in order to recruit a wider and more diverse population of participants. It was also hypothesized that the unique target population might be more inclined to participate in an online survey.

Data collection commenced in early March, 2010 and was completed at the end of May, 2010. A consent form, demographics questionnaire and six questionnaires were posted online on the survey software program, Survey Monkey. A website, now closed, ([www.timealoneresearch.com](http://www.timealoneresearch.com)) was developed with contact information and the criteria for participation in the study. The website contained a link to the survey which began with a consent form and was followed by the questionnaires and additional questions on demographics and perceptions and behaviours related to spending time alone. Completion of the study took an average of 20 minutes.

The majority of the questions on the survey were selected as forced-choice questions, meaning participants could not continue the survey without answering the question. Questions such as those on the Social Phobia Inventory were all forced-choice due to the diagnostic nature of the scale. In addition questions on the Subjective Happiness Scale and the EPQR-A were also all forced choice due to the small number of questions on the scales. Questions which were hypothesized to be less critical to the survey allowed participants to continue the survey without answering the question. These included some questions on the Preference for Solitude Scale as well as some demographic questions. These decisions were made to limit drop out rates as it was hypothesized that particular questions would cause participants to quit the survey unless they

were permitted to skip them. In instances when participants selected to skip a non forced-choice question, the mode or median of the sample was used to replace missing data.

### **Participant Profile**

A total of 620 adults started the online survey. Some subjects (N=82) were removed as they did not meet the stated criteria for participation or they did not complete the study. The final analysis included 538 subjects. All subjects that were included in the research reported that they were residing in North America and were over the age of 24 at the time of the study. All participants reported that they spent more time alone than others they knew.

### **Recruitment**

Recruitment was aimed specifically at individuals who spend significant time alone. English speaking adults over the age of 24 were recruited within North America. The decision was made to recruit individuals without mentioning the loner label as it was hypothesized that the negative connotations associated with the label might deter people from participating in the research.

Individuals were recruited in various cities across North America through the use of posters and flyers that were posted at university campuses, libraries, bus stops and community centres. Advertisements were also placed in community print newspapers across a number of cities. Several newsletters dedicated to the topic of solitude and hermitry were also contacted and were willing to place small recruitment ads for the study.

Recruitment notices were also placed online on relevant blogs, online newspapers and websites such as the Craigslist Classifieds. A Facebook page describing the nature of the study was also created. In order to maintain confidentiality, this page contained a link to a separate



website which contained the survey. Facebook was an ideal avenue for recruitment as it is a social networking site that reaches a large and diverse audience (Ellison et al., 2007).

It was hoped that recruiting across a spectrum of mediums (posters, online blogs, social websites, newsletters, and newspapers) would facilitate access to a diverse sample of participants across North America.

Recruitment notices also stated that participants would have the option of entering a draw to win gift certificates to Amazon.ca.

### **Inclusion Criteria**

Individuals were included in the study if they stated that they spent more time alone than others they knew. They also had to report that they were over the age of 24 and that they resided in North America at the time of the study.

The age of 24 was selected as a cutoff point to help control for potential confounding effects of age. For example, children and adolescents under the care of adults likely face more restrictions and may not have the freedom afforded in adulthood to spend time alone. Studying adults also eliminates concerns regarding age of consent. The criterion of living in North America was selected in order to minimize potential cultural confounds. Studying subjects within North America increases the likelihood that individuals will have similar cultural beliefs and social patterns.

The last criteria involves the individual's perception of the amount of time they spend by themselves compared to others they know. This question was used to avoid the problems associated with the reliability of having participants recall the average amount of hours they spend alone or to calculate the hours they spend alone in a longitudinal study. Since this was a large online study, methods employing longitudinal calculations of time were not possible.

## **Study Measures**

Theoretically relevant constructs that were hypothesized to distinguish the not happy group from the happy group were considered for this study. Constructs related to well-being and spending time alone were selected. The selected constructs were: happiness, loneliness, social phobia, extraversion, preference for solitude and attachment style. Happiness, loneliness and social phobia were the primary measures of well-being.

Factors such as reliability and validity, length of scale, time required of participant, cost of scale, permission from the author, and scale availability were considered. By using multiple measures we were able to explore a wide spectrum of constructs within the population. The study materials and measures are discussed in detail below.

## **Consent Form**

Prior to participation in the study, participants were required to read a consent form and to consent to participation. The consent form outlined the purpose of the study and the procedure for its completion. The voluntary nature of the study as well as anonymity and confidentiality were clearly explained. The possible benefits of participating in the study was emphasized. It was outlined on the consent form that participants could withdraw from participation at any point throughout the study. Information about the gift certificate draw was provided. If participants wished to enter the draw, they were prompted to provide their email address. Participants were given the opportunity to provide their email address if they wished to receive a summary of the results after the study's completion. An email address for the researcher was provided on the form in the event that individuals required more information about the study (see Appendix B).

## **Demographics Questionnaire**

After the consent form, participants completed a brief demographics questionnaire developed by the researcher (see Appendix C). Information about participants' age, marital status, occupation, and geographical location was collected. Participants were asked if they had ever sought assistance for difficulties with relationships or emotional concerns or if they had ever been diagnosed with a mental or emotional disorder and to list their diagnosis. Although the mental illness question was examined in the analysis, the information was not used as an exclusionary factor.

## **Subjective Happiness**

Numerous scales have been developed in order to measure individual happiness. Due to its short length and ease of administration the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999) (see Appendix D) was used to assess subjective happiness. The SHS is a short 4-item scale which measures global subjective happiness on a 0 to 7 scale. The first question asks individuals to indicate how happy they are on a seven-point Likert scale (*1 = very unhappy, 7 = very happy*). The second question asks individuals to indicate how happy they are relative to their peers (*1 = much less happy, 7 = much more happy*). The final two items provide brief descriptions of happy people and unhappy people and ask individuals to rate the extent to which each description applies to them (*1 = not at all, 7 = a great deal*).

The SHS demonstrates high internal consistency (0.86 for U.S adult community sample) and stability over time. After a time lag of one year, the test-retest reliability for the U.S adult population was 0.55. (Lyubomirsky & Lepper, 1999). The scale also correlates with other widely employed measures related to subjective well-being, such as the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) and the Beck Depression Inventory

(BDI; Beck, 1967) (Lyubomirsky & Tucker, 1998). Finally, correlations ranging between 0.41 to 0.66 were found between self-other ratings on the SHS (Lyubomirsky & Lepper, 1999).

Permission from the author was obtained to use the scale.

### **Loneliness**

We examined loneliness due to its theoretical relevance and its established correlation with poor well-being. The Revised UCLA Loneliness Scale (Version 3) (Russell, 1996) (see Appendix E) was administered to assess subjective feelings of loneliness. The UCLA Loneliness Scale is a widely used 20-item scale measuring subjective feelings of loneliness or social isolation using a four-point scale (*never, rarely, sometimes, always*). The scale assesses three dimensions of loneliness: (a) “intimate others,” (b) “social others,” and (c) the “affiliative environment.” Scores range from 20 (little loneliness) to 80 (high loneliness) and the normal mean score is 40.5 (Geller, 1999). Examples of questions on the scale include, “How often do you feel that there are people you can turn to?” and “How often do you feel close to others?”

The scale has high reliability. Test retest reliability over a period of one year was 0.73 and internal consistency coefficients ranged from 0.89 to 0.94 (Russell, 1996). The scale demonstrates good convergent validity with high correlations with a number of other measures of loneliness. For example, the NYU Loneliness Scale (0.65) and the Differential Loneliness Scale (0.72) (Russell, 1996). Permission from the author was obtained to use the scale.

### **Social Phobia**

We examined Social phobia due to its theoretical relevance and its established correlation with poor well-being.

The Social Phobia Inventory (SPIN; Connor, Davidson, Churchill, Sherwood, & Weisler, 2000) (see Appendix F) was selected as a measure of social phobia due to its ease of scoring, short length, and its potential use as a diagnostic tool. The inventory is a 17-item questionnaire measuring fear, avoidance, and physiological components of social phobia on a scale from 0 to 68. Participants are asked to rate statements using a Likert scale. Examples of statements include, “I avoid talking to people I don’t know” and “Parties and social events scare me.”

The SPIN discriminates between subjects with and without social phobia with a cutoff score of 19 (Connor et al., 2000). The scale correlates with other well-known scales of social phobia such as the LSAS and the BSPS (Connor et al., 2000). Permission from the author was obtained to use the scale.

### **Extraversion-Introversion**

Since extraversion is primarily a measure of sociability (Hills & Argyle, 2001), the Eysenck Personality Questionnaire Revised- Abbreviated scale (see Appendix G) was employed to confirm that the population of participants represented those who actually spend a significant amount of time alone. The measure was also selected based on its strong correlation with happiness and well-being

The Eysenck Personality Questionnaire Revised- Abbreviated (Francis, Brown & Philipchalk, 1992) was employed to measure extraversion/introversion. The EPQR-A is a widely used, 24-item adult inventory designed for researchers with time limitations. It is derived from the established questionnaires, the EPQ (Eysenck & Eysenck, 1975) and the shorter revised version, the EPQR-S (Eysenck, Eysenck & Barrett, 1985). The EPQR-A includes four subscales of 6-items which measure extraversion, neuroticism, psychoticism and a lie scale. Due to time limitations, only the six extraversion questions from the 24-item inventory were administered.

Examples of questions include “are you a talkative person?” and “Do other people think of you as very lively?” The extraversion scale is scored from 0-6 in a yes/no format with higher scores indicating higher levels of extraversion. It is intended to be scored continuously rather than categorically.

The concurrent validity of the EPQR-A was assessed by its correlations with the EPQR-S. Correlations for the extraversion items were 0.93 to 0.95. While the reliability of the extraversion items on the EPQR-A was lower than its parent scale, it still recorded alpha coefficients between 0.74 and 0.84 (Francis et al., 1992). Permission from the author was obtained to use the scale.

### **Preference for Solitude**

The Preference for Solitude Scale was selected due to its established positive correlation with spending time alone ( $r = .37$ ) (Burger, 1995). Employing the PSS helped to confirm that our sample was representative of individuals who spend more time alone than average.

To assess preference for solitude, participants completed the Preference For Solitude Scale (Burger, 1995) (see Appendix H). The Preference for Solitude Scale is 12-item scale assessing differences in the extent to which individuals prefer solitude instead of social time. Participants are presented with two statements for each question and are asked to select which statement they prefer. For example, “If I were to take a several-hour plane trip I would like to sit next to somebody who was pleasant to talk with.” versus, “If I were to take a several-hour plane trip I would like to spend the time quietly.” The scale demonstrates good internal consistency (0.70) and good test-retest reliability (0.72) and good validity (Burger, 1995). Permission from the author was obtained to use the scale.

## **Attachment**

Due to its short length and ease of administration, the Relationship Questionnaire was used to assess self-reported attachment style (see Appendix I). Bartholomew and Horowitz's (1991) measure is comprised of four paragraphs which describe the secure, dismissing, preoccupied, and fearful attachment styles. The secure attachment style is described as followed, "It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me." The Dismissing orientation is described as, "I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me." The Preoccupied orientation is described as, "I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them." Finally, The Fearful orientation is described as, "I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others."

Participants are required to select the attachment type that most applies to them. In addition subjects are asked to rate each attachment type on a seven-point Likert scale according to how much the description resembles them. Continuous ratings rather than categorical ratings are recommended as the best method of measurement. The model underlying the scale has shown reasonable reliability and validity (Griffin & Bartholomew, 1994). Permission from the author was obtained to use the scale.

## **Additional Questionnaire**

Finally, a questionnaire developed by the researcher was administered (see Appendix J) in order to gain information on participants' behaviour and perception of lifestyle. The first question on the questionnaire was designed as the inclusion criteria question. Individuals had to agree with the statement "Compared to others, I spend more time by myself" in order to have their data included in the study.

Since reasons for seeking solitude were hypothesized to be important in the relationship between preference for solitude and happiness, subjects were asked to agree or disagree with the following statements: "The main reason I seek solitude is because I enjoy it" and "The main reason I seek solitude is because I have a low desire to engage with others."

Questions designed to address appraisals of social relationships were asked. Subjects were asked to agree or disagree with the following statements: "Although I spend a lot of time by myself, I have meaningful relationships." and "Although I spend a lot of time by myself, I feel supported by others."

Participants were asked to list activities they participate in during their free time. A comments box was also available at the end of the study.

## **Data Analysis**

Data was analyzed using the computer software program SPSS version 18.0 using both descriptive and inferential statistics. For the first research question, which asked about the existence of happy individuals who spend frequent time alone, simple descriptive statistics were performed such as Pearson product-moments correlations, means and standard deviations. The second research question asked how the sample of not happy individuals differed from happy individuals, on measures of loneliness, social phobia, extraversion, preference for solitude and



attachment. To answer this question, inferential statistics were performed. Specifically, a MANOVA and t-tests were conducted to identify significant differences between the groups. Since attachment style is scored differently than the other measures, a separate analysis was conducted using a chi-square test of independence. The third question which asked about the contributions of loneliness, social phobia, extraversion, and preference for solitude on happiness was also assessed with inferential statistics. Here a multiple regression analysis was performed. To assess differences between self-declared loners and nonloners inferential statistics were employed again in the form of a MANOVA and t-tests. Finally, data from the demographic and the loner questionnaire was analyzed for self-declared loners and nonloners with simple descriptive statistics. Chi-square tests of independence were used to analyze differences in demographic information and differences on questions related to perception of social support and meaningful relationships. To explore questions raised by the data obtained, a post hoc analysis was later performed to compare the not happy to the happy self-declared loners. To reduce problems associated with multiple comparisons a Bonferroni correction was performed on all t-tests. The qualitative data was reviewed but a content analysis was not performed. A detailed account of the analysis is discussed in the next chapter.

## Chapter 4: Results

### Research Questions

1. Is there a subgroup of individuals who spend frequent time alone who are also happy?
2. In the sample, how do not happy individuals differ from happy individuals on measures of loneliness, social phobia, extraversion, preference for solitude and attachment style?
3. How do loneliness, social phobia, extraversion, preference for solitude and attachment style contribute to overall happiness?
4. How do self-declared loners differ from self-declared nonloners in the studied population and how can the loner construct be described?

### Defining The Sample

Demographics information revealed that the sample consisted of 176 (33%) males and 352 females (65.9%). The mean age was 41.4 (SD =12.56) and the age range was 25-79. A total of 75% of participants reported living in urban environments and 25% reported living in rural environments. All participants reported living in North America at the time of the study. In addition, 56% indicated that they had sought assistance for relationship or emotional concerns and 35% indicated that they had been diagnosed with a mental disorder. Results showed that 51% of participants were single and 27% were married or partnered. Participants were asked to list their occupation. The five most common answers were: student, self-employed, retired, unemployed, and teacher. When asked to list what activities they participated in during free time, the most common responses were: internet, reading, watching television, exercise, music, and cooking.

### **Happy Participants Who Spend Frequent Time Alone**

Is there a subgroup of individuals who spend frequent time alone who are also happy? Individuals were divided into two groups based on their score on the Subjective Happiness Scale. Individuals who fell below the normal mean score of 5.6 were classified as not happy whereas individuals who scored 5.6 or above were classified as happy. The mean score on happiness for the entire group on the Subjective Happiness Scale was 4.3, SD=1.4. The not happy group obtained a mean score of 3.8, SD=1.1. Descriptive statistics revealed that 21.7% (N=117) of the individuals we sampled reported a mean score (M=6.2, SD=0.4) of or above the normal mean score for happiness (M=5.6) on the Subjective Happiness Scale. In summary, a significant group of individuals who spend frequent time alone reported average or above average levels of happiness on the SHS.

### **Differences Between Not Happy and Happy Participants**

In the sample, how do not happy individuals differ from happy individuals on measures of loneliness, social phobia, attachment style, preference for solitude and extraversion? To investigate how not happy participants differed from happy participants a multivariate analysis of variance (MANOVA) and an independent samples t-test was performed. Attachment style was examined separately and differences between groups were confirmed with a chi-square analysis of independence. Results for the MANOVA and follow-up t-tests are discussed in detail below, followed by results for attachment style.

### **Pearson Product-Moment Correlations Among Measures**

A two-tailed Pearson's Correlation of the constructs for the entire sample revealed that subjective happiness was negatively correlated with loneliness ( $r=-.655$ ,  $p<0.01$ ). These finding

are consistent with other studies on loneliness and well-being (Cacioppo & Patrick, 2008). As expected, social phobia was negatively correlated with happiness ( $r=-0.481$ ,  $p<0.01$ ). Similar findings have been reported by (Neto, 2001). Subjective happiness was moderately positively correlated with preference for solitude ( $r=0.149$ ,  $p<0.01$ ). Also consistent with previously established correlations (Hills & Argyle, 2001), subjective happiness was correlated with extraversion ( $r=0.314$ ,  $p<0.01$ ). Pearson product-moment correlations coefficients for all measures are presented in Table 4.1.

Table 4.1  
*Intercorrelation Matrix*

	SHS	UCLA	SPIN	PSS	EPQR-A
SHS	1.00				
UCLA	-.655**	1.00			
SPIN	-.481**	.523**	1.00		
PSS	.149**	-.073	.068	1.00	
EPQR-A	.314**	-.389**	-.494**	-.278**	1.00

*Note.* \*\*. Correlation is significant at the 0.01 level (2-tailed). SHS = Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). UCLA = UCLA Loneliness Scale-Version 3 (Russell, 1996). SPIN = Social Phobia Inventory (Connor, Davidson, Churchill, Sherwood, Weisler, 2000). EPQR-A = Eysenck Personality Questionnaire, Revised-Abbreviated. (Francis, Brown and Philipchalk, 1992). PSS = Preference For Solitude (Burger, 1995).

Due to analysis of multiple dependent variables, a multivariate analysis of variance (MANOVA) was performed across the four variables of loneliness, social phobia, extraversion, and preference for solitude to ascertain whether the two groups differed significantly from each

other. Since the number of subjects in the not happy (N=421) and happy (N=117) groups were unequal we conducted an unbalanced multivariate test. Please refer to Table 4.2

The result of the MANOVA analysis was significant ( $F = 36.35, p < .001$ ), indicating a significant difference between the means of the two groups. In determining the equality of covariance between the two groups, Box's M revealed a statistic of 62.099. This result was significant ( $p < .001$ ), indicating that the observed covariance matrices of the dependent variables were not equal across the two groups.

Table 4.2  
*Means for Happy and Not Happy Participants*

Group	Scale	Mean	SD
Not happy	UCLA	53.87**	9.7
Happy	UCLA	43.38	8.5
Not happy	SPIN	23.4**	13.3
Happy	SPIN	12.8	7.8
Not happy	EPQR-A	2.3**	2.1
Happy	EPQR-A	3.4	1.9
Not happy	PSS	9.2**	2.8
Happy	PSS	10.2	2.0

*Note.* UCLA = Loneliness: UCLA Loneliness Scale-Version 3 (Russell, 1996). SPIN = Social phobia: Social Phobia Inventory (Connor, Davidson, Churchill, Sherwood, Weisler, 2000). EPQR-A = Extraversion: Eysenck Personality Questionnaire, Revised-Abbreviated Form (Francis, Brown and Philipchalk, 1992). PSS = Preference for solitude: Preference For Solitude Scale (Burger, 1995).

### **Independent Samples T-Tests**

Results from the MANOVA were confirmed with independent samples t-tests. The mean score for the entire group of individuals on the UCLA Loneliness Scale (version 3) was 51.59 (SD=10.4). The normal mean score for the UCLA Loneliness Scale is approximately 40.5 (Geller

et al., 1999). A score of 50 or above represents the top 14 % of the population (Russell, personal communication, July 12, 2010).

An independent samples t-test was performed to determine if significant differences existed between lower happy ( $M= 53.8$ ,  $SD= 9.7$ ) and happy participants ( $M=43.3$ ,  $SD=8.5$ ). Levine's test for equality of variance for both levels of happiness was significant ( $p=.048<.05$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the UCLA Loneliness Scale for the two groups were significantly different;  $t(208)=11.4$ ,  $p < .001$ . In summary, the independent t-test revealed a significant group difference, indicating that the mean score on the UCLA Loneliness Scale for the not happy group was significantly higher than the mean score for the happy group.

The mean score for the entire group on the Social Phobia Inventory was 21.14. A cutoff score of 19 on the SPIN discriminates between subjects with and without social phobia (Connor et al., 2000). Subjects as a group therefore met the measure's clinical criteria for social phobia. However, the not happy individuals obtained a mean score that is above the clinical cutoff whereas happy participants obtained a mean score below the clinical cutoff point.

A t-test was conducted to determine if significant differences existed between not happy ( $M= 23.4$ ,  $SD= 13.3$ ) and happy participants ( $M=12.8$ ,  $SD=7.8$ ). Levine's test for equality of variance for both levels of happiness was significant ( $p < .001$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the SPIN for the two groups were significantly different;  $t(320)=10.86$ ,  $p < .001$ . In summary, the independent samples t-test revealed a significant group difference, indicating that the mean score on the SPIN for the not happy group was significantly higher than the mean score for the happy group.

The mean score for the entire group of individuals on the extraversion measure of the EPQR-A was 2.6 (out of a possible range of 0 to 6). The extraversion measure of the EPQR-A is

intended to obtain continuous rather than categorical scores. The normal mean score for a population of English speaking adults residing in Quebec was 3.8 (Gibson et al., 2008). Based on this norm and others established in the literature (Maltby, 2003) we split respondents into two groups. Those who scored from 0 to 3 were considered as “more introverted” whereas those who scored between 4 and 6 were considered as “more extroverted.” Descriptive statistics revealed that 60% (N=328) of participants were more introverted.

An independent samples t-test was computed to determine if differences existed between not happy (M= 2.3, SD= 2.1) and happy participants (M=3.4, SD=1.9). Levine’s test for equality of variance for both levels of happiness was statistically significant ( $p=.010<.05$ ) . We used the t-test with the assumption that the variances are not equal. The results showed that the means of the extraversion measure on the EPQR-A for the two groups were significantly different;  $t(203)=-5.19, p < .001$ . In summary, the independent t-test revealed a significant group difference, indicating that the mean score on the EPQR-A for the not happy group was significantly lower than the mean score for the happy group.

The mean score for the entire group on the Preference for Solitude Scale was 9.4. Although normal adult mean scores for the PSS are not available, Burger (1995) found that the mean score for a normal population of undergraduates was approximately 4.87.

A t-test was calculated to determine if differences existed between not happy (M=9.2, SD= 2.8) and happy participants (M=10.2, SD=2). Levine’s test for equality of variance for both levels of happiness was significant ( $p < .001$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the PSS for the two groups were significantly different;  $t(251)=-4.38, p < .001$  . In summary, the independent t-test revealed a significant group difference, indicating that the mean score on the Preference for Solitude Scale for the not happy group was significantly lower than the mean score for the happy group.

Since the PSS does not assess reasons for preferring solitude, additional questions were asked in order to examine participants' reasons for preferring solitude over social time. Participants were asked to agree or disagree with the following statements: "The main reason I seek solitude is because I enjoy it" and "The main reason I seek solitude is because I have a low desire to engage with others." Results indicated that 93.2% of the happy group agreed with the first statement, whereas 68% of the not happy group agreed with the first statement. For the second question, 34.2% of the happy group agreed, whereas 48% of the not happy group agreed with the statement. A chi-square test of independence confirmed that the differences between groups were significant ( $p < .001$ ). In summary, the happy group was more likely than the not happy group to seek solitude out of enjoyment, and they were less likely than the not happy group to seek solitude due to a low desire to engage with others.

### **Attachment and Happiness**

Due to its method of scoring, the Relationship Questionnaire was examined separately. The RQ is intended to obtain continuous ratings for each attachment orientation rather than categorical ratings, thus participants cannot be categorized into a single attachment style. Results suggested that the not happy participants rated the fearful and dismissing attachment orientations the highest, whereas happy participants rated the secure and dismissing attachment orientations the highest. A chi-square test of independence was computed to determine if attachment styles were distributed differently across the two groups. The results were significant,  $X^2(3, N = 538) = 61.41, p < .001$ . This indicates that when rating the degree to which attachment styles represent them, happy and not happy participants rate attachment styles in significantly different ways. Table 4.3 summarizes the results.



Table 4.3  
*Group Differences In Attachment Style*

Attachment Style	Not Happy	Happy
Secure	13.1%	36.8%
Fearful	37.3%	11.1%
Preoccupied	17.6%	6.0%
Dismissing	32.1%	46.2%

*Note.* Percent of low and happy participants who gave their highest ratings to each attachment style.

### **Additional Questions**

Questions were asked about motivation for spending time alone and perceived social support/relationships. In assessing reasons for seeking solitude, not happy participants were less likely than happy participants to agree with the statement “The main reason I seek solitude is because I enjoy it.” A Chi-square test of independence revealed that this difference was significant  $X^2(1, N = 538) = 28.58, p < .001$ . Not happy participants were more likely to agree with the statement “The main reason I seek solitude is because I have a low desire to engage with others.” A Chi-square test of independence revealed that this difference was significant  $X^2(2, N = 538) = 8.42, p = .015$ . In assessing perceptions of social support/relationships, not happy individuals were less likely to agree with the statement “Although I spend a lot of time by myself I have meaningful relationships.” A Chi-square test of independence revealed that this difference was significant  $X^2(1, N = 538) = 21.83, p < .001$ . Not happy participants were also less likely to agree with the statement “Although I spend a lot of time by myself, I feel supported by others.” A Chi-square test of independence revealed that this difference was significant  $X^2(1, N = 538) = 36.58, p < .001$ . Please refer to Table 4.4

Table 4.4  
*Reasons for Seeking Solitude and Perception of Social Support/Meaningful Relationships for Not Happy and Happy Participants*

Statement	Not happy	High happy
The main reason I seek solitude is because I enjoy it.	69%	93%
The main reason I seek solitude is because I have a low desire to engage with others.	49%	34%
Although I spend a lot of time by myself I have meaningful relationships.	74%	94%
Although I spend a lot of time by myself, I feel supported by others.	64%	93%

*Note.* Table 4.4 indicates the percentage of not happy and happy participants who agreed with statements concerning motivation for spending time alone and perceived social support. The two groups were statistically different on all four questions.

### **Contributions of Variables**

How do loneliness, social phobia, extraversion, and preference for solitude contribute to happiness? A multiple regression analysis was used to examine the combination of loneliness, social phobia, extraversion and preference for solitude to predict happiness. The fifth measure (attachment style) was excluded from the regression analysis due to its incompatible scoring method.

Results indicated that 46% of the variance in happiness could be predicted from the independent variables (loneliness, social phobia, extraversion and preference for solitude)  $R^2 = .472$ ,  $F = 119.26$ ,  $p < .001$ . The Beta values indicated that loneliness contributed the most to happiness (Beta=  $-.524$ ,  $t = -13.73$ ,  $p < .001$ ). This was followed by social phobia (Beta=  $-.189$ ,  $t = -4.74$ ,  $p < .001$ ) and preference for solitude (Beta=  $.140$ ,  $t = 4.17$ ,  $p < .001$ ). Extraversion did not make a significant contribution (Beta=  $.056$ ,  $t = 1.43$ ,  $p = .151$ ). Results are presented in Table 4.5

Table 4.5  
*Contributions of Variables on Happiness*

Scale	B (unstandardized)	Beta (standardized)	p
UCLA	-.072	-.524	.000
SPIN	-.020	-.189	.000
Preference Solitude	.074	.140	.000
EPQR-A	.037	.056	.151

*Note.* Summary of multiple regression analyses of the UCLA, SPIN, EPQR-A and the PSS predicting scores on the Subjective Happiness Scale

### **Defining The Loner Construct**

How do self-declared loners differ from self-declared nonloners in the studied population? The loner construct was examined in a separate analysis using the same 538 participants. Since it was hypothesized that many participants who spend significant time alone would consider themselves to be loners, at the end of the study the question “Are you a loner?” was asked. All participants were grouped as self-declared loners or nonloners based on their yes or no answer to the question. Self-declared loners and nonloners were then compared on various demographic measures. Independent samples t-tests and a MANOVA were also performed to examine differences between groups on the psychosocial measures of loneliness, social phobia, extraversion and preference for solitude. The attachment style data was examined in a separate analysis using a chi-square test of independence. A post hoc analysis was then conducted on the self-declared loners to examine differences between happy and not happy loners. Self-declared loners and self-declared nonloners will henceforth be described as loners and nonloners.

## Descriptive Statistics

Group descriptive statistics revealed that 69 % (N=374) of participants declared themselves as loners. There were no significant differences between loners and nonloners for gender, marital status or type of living environment (urban/rural). It was, however, revealed that 81% of seniors (adults over the age of 60) identified as loners whereas 68 % of adults under the age of 60 identified as loners. A chi-square test of independence was performed to examine age between loners and nonloners. The result was significant,  $X^2 (1, N = 478) = 4.42, p < .05$ . In addition, 39.6% of loners indicated that they had been diagnosed with a mental disorder, compared to 26.2% of self-declared nonloners. A chi-square test of independence was performed to examine mental illness between loners and nonloners. The result was significant  $X^2 (2, N=538)=8.92, p < .05$ .

To reduce the amount of data presented in this chapter, results for the independent samples t-tests and the additional questions concerning motivation for seeking solitude and perception of social support are located in Appendix K. Results for the MANOVA are presented below.

A multivariate analysis of variance (MANOVA) was performed to assess differences across loners and nonloners on the same variables of happiness, loneliness, social phobia, extraversion, and preference for solitude. Since the number of subjects in the nonloner (N=164) and the loner (N=374) groups were unequal we conducted an unbalanced multivariate test.

The result of the MANOVA analysis was significant ( $F = 29.36, p < .001$ ), indicating a significant difference between the means of the two groups. The t-tests confirm the MANOVA (see Appendix K).

In determining the equality of covariance between the two groups, Box's M revealed a statistic of 44.6. This result was significant ( $p < .001$ ), indicating that the observed covariance

matrices of the dependent variables were not equal across the two groups. We can therefore reject the null hypothesis.

### **Loners and Attachment**

We examined the Relationship Questionnaire separately. Simple descriptive statistics revealed that loners gave their highest ratings to the dismissing and fearful attachment orientations. Nonloners gave their highest ratings to the secure and fearful orientations. A chi-square test of independence was computed to determine if attachment styles were distributed differently across the two groups. The results were significant,  $X^2(3, N=538)=44.93, p < .001$ . This indicates that when rating the degree to which attachment styles represent them, loners and nonloners rate attachment styles in significantly different ways.

### **Post Hoc Analysis**

To explore questions raised by the data obtained, a post hoc analysis was performed in order to compare happy loners to not happy loners. In this analysis only those who identified as loners were included (N=374). Descriptive statistics revealed that 20.6% (N=77) of self-declared loners reported average or high scores in happiness. This proportion represents approximately the same proportion of happy individuals from the entire sample.

A MANOVA was performed to assess differences across happy loners and not happy loners on the same dependent variables of happiness, loneliness, social phobia, extraversion, and preference for solitude. Since the number of subjects in the happy loner (N=77) and the not happy loner (N=297) groups were unequal we conducted an unbalanced multivariate test.

The result of the MANOVA analysis was significant ( $F = 30.0, p < .001$ ), indicating a significant difference between the means of the two groups. Please refer to Table 4.6.

In determining the equality of covariance between the two groups, Box's M revealed a statistic of 54.89. This result was significant ( $p < .001$ ), indicating that the observed covariance matrices of the dependent variables were not equal across the two groups.

Table 4.6  
*Means for Happy and Not Happy Self-Declared Loners*

Group	Scale	Mean	SD
Not happy	SHS	3.7**	1.1
Happy	SHS	6.2	0.4
Not happy	UCLA	55.9**	9.4
Happy	UCLA	44.5	8.2
Not happy	SPIN	25.4**	13.7
Happy	SPIN	12.8	7.7
Not happy	EPQR-A	1.9**	1.9
Happy	EPQR-A	3.3	1.8
Not happy	PSS	9.8**	2.4
Happy	PSS	10.8	1.6

*Note.* SHS = Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). UCLA = Loneliness: UCLA Loneliness Scale-Version 3 (Russell, 1996). SPIN = Social Phobia: Social Phobia Inventory (Connor, Davidson, Churchill, Sherwood, Weisler, 2000). EPQR-A = Extraversion: Eysenck Personality Questionnaire, Revised-Abbreviated Form (Francis, Brown and Philipchalk, 1992). PSS = Preference for solitude: Preference For Solitude Scale (Burger, 1995).

### Summary of Results

Data was presented from 538 adults across North America who reported spending more time alone than average. It was found that 21.7% of the sample reported average or above average levels of happiness.

Results obtained indicated that not happy and happy participants differed significantly on measures of loneliness, social phobia, extraversion, preference for solitude and attachment. Not

happy respondents had significantly higher rates of loneliness and social phobia and introversion. In addition, not happy respondents had a lower preference for solitude and were less likely to give their highest ratings to the secure attachment orientation.

A regression analysis revealed that loneliness, social phobia and preference for solitude all contributed to happiness. Extraversion was the only measure of the four that did not predict happiness.

The study also demonstrated that loners differed significantly from the self-declared nonloners in multiple ways. Loners reported significantly lower levels of happiness, higher levels of loneliness, higher levels of social phobia and lower levels of extraversion. In addition, loners had a higher preference for solitude. They were also less likely to endorse the secure attachment style. Finally, a post hoc analysis revealed a subgroup of happy loners. These loners also differed significantly on the variables of loneliness, social phobia, extraversion and preference for solitude from the not happy loners.

## **Chapter 5: Discussion**

### **Happy Participants Who Spend Frequent Time Alone**

The first aim of this study was to determine if there was a population of happy individuals who spend a significant amount of time by themselves. Hypothesis 1 predicted that a subgroup of happy individuals who spend frequent time alone has been overlooked in the existing literature. It was hypothesized that a minority of respondents would report average or above average levels of happiness on the Subjective Happiness Scale. As a unified group (N=538) the results were consistent with existing research on the relationship between spending time alone and poor well-being (Seligman, 2002). The mean score obtained for the entire sample (M=4.3, SD=1.4) on happiness was below the normal mean score (M=5.6) on the SHS.

More detailed descriptive statistics revealed that 21.7% of participants obtained scores that matched or exceeded the adult normal mean score on the SHS for happiness. Furthermore, their mean score of 6.2 (SD=0.4) out of a possible 7, was considerably high. The identification of such a population supports the hypothesis that a unique subgroup has been overlooked in the existing literature. In addition, it raises questions about the generalizability of the negative correlation between frequent time spent alone and happiness.

### **Differences Between Not happy Participants and Happy Participants**

The second aim of the study was to examine differences between participants who reported low levels of happiness and those who reported average/high levels of happiness. Based on correlations between the measures of interest and happiness, hypothesis 2 predicted that the two groups would differ significantly on measures of loneliness, social phobia, extraversion, preference for solitude, and attachment style. Reported differences in these constructs of interest



were hypothesized to distinguish the not happy group from the happy group and to illuminate factors that might affect happiness beyond spending frequent time alone. The results of the t-tests and the MANOVA confirmed hypothesis 2.

On the UCLA Loneliness Scale (version 3), not happy participants obtained significantly higher scores, indicating greater loneliness than those who reported average/high happiness. These findings are consistent with other research findings on the inverse correlation between loneliness and happiness (Neto, 2001). The difference between groups in scores of loneliness suggests that loneliness plays a supplementary role in the relationship between spending time alone and low happiness.

On the Social Phobia Scale, not happy participants obtained significantly higher scores, indicating greater social phobia than those who reported average/high happiness. These results are consistent with the established inverse correlation between happiness and social anxiety (Neto, 2001). Again, this suggests that social phobia may play a supplementary role in the established correlation between spending time alone and low happiness

Not happy participants also scored significantly lower on the extraversion measure of the EPQR-A, indicating higher introversion than the happy participants. This is in accord with previous findings on the robust correlation between extraversion and happiness (Hills & Argyle, 2001). An unexpected finding, given what we know about the social nature of extraverts, was that individuals who were classified as “more extroverted” made up a large proportion (39%) of all participants. Since the entire sample was comprised of people who spend significant time alone, one would expect the percentage of extraverts to be lower.

On the Preference for Solitude Scale significant differences were found between groups on the PSS with not happy participants indicating less of a desire for solitude than happy participants. One explanation for this finding is that happy respondents prefer solitude more due

to genuine enjoyment whereas unhappy participants prefer solitude for reasons other than enjoyment (due to social anxiety or poor social skills). Since the PSS does not examine reasons for preferring solitude over social time, participants were asked to agree/disagree with two statements concerning motivation for spending time alone. Results indicated that happy participants were more likely than not happy participants to seek solitude because they enjoy it. In addition not happy people were more likely than happy people to seek solitude out of a low desire to engage with others. This suggests that not happy and happy people have different motivations for seeking solitude and that those that have a high preference for solitude due to genuine enjoyment are happier.

Finally, data from the Relationship Questionnaire revealed that the proportion of secure, fearful, preoccupied and dismissing attachment orientations differed significantly across the two groups. Not happy participants were most likely to give high ratings to the fearful and dismissing attachment orientations, whereas happy participants were most likely to give high ratings to the secure and dismissing attachment orientations. These results are consistent with the research of Webster (1998) who found that individuals who were high in the secure and dismissing orientations on the Relationship Questionnaire were happier than those who were high in the fearful or preoccupied orientations. This indicates that an individual's attachment style could influence the relationship between spending time alone and happiness.

The above results suggest that there are additional psychosocial variables that should be taken into account when interpreting data about the negative effects of spending frequent time alone. Data from the happy group indicates that spending frequent time alone may not in itself lead to unhappiness. However, spending time alone in combination with factors such as high loneliness, or social phobia may lead to unhappiness, or conversely, unhappiness in combination with other variables may lead to spending frequent time alone.

The existence of a happy group contradicts much of the psychosocial research as well as the stereotype associated with this demographic. It provides support that a subgroup of happy and well-adjusted individuals who spend frequent time alone has gone unnoticed in the literature.

### **Contributions of Variables to Happiness.**

The third aim of the study was to look at the contributions of loneliness, social phobia, extraversion and preference for solitude on happiness. Due to its scoring method, attachment was not analyzed. Hypothesis 3 predicted that factors associated with spending time alone would additionally contribute to happiness/unhappiness. A regression analysis indicated that the group of psychosocial variables reliably predicted happiness. It was found that loneliness contributed the most to low happiness, followed by social phobia. Finally preference for solitude also contributed to happiness. Extraversion did not significantly predict happiness.

The finding that loneliness contributed the most significantly to low happiness was not unexpected. Loneliness was highly negatively correlated with happiness in our sample ( $r = -.655$ ), a finding consistent with other research (Neto, 2001). Our sample was highly lonely; 56% of the total number of participants obtained scores of 50 or above on the UCLA Loneliness Scale. A score of 50 or above represents the top 14% of a normal population. To break it down further, 66% of not happy people obtained scores above 50, whereas only, 21% of happy people obtained scores above 50. This provides further support that loneliness plays a primary role in the relationship between spending time alone and unhappiness. Could loneliness account for much of the relationship between spending time alone and unhappiness?

Since loneliness is a subjective state, how individuals evaluate spending time alone may be critical in perceived experiences of loneliness. As West et al. (1986) explained, physical isolation in itself does not cause loneliness. The subjective state of loneliness only occurs if

individuals perceive themselves or their lives as lonely. One broad conclusion from this is that happiness for those who spend a lot of time alone may depend heavily on their evaluative judgments of their lifestyle. In other words, their appraisals of their lifestyle as satisfying or not lonely might act as a buffer against the negative effects of social inactivity.

Studies on perceived and received social support emphasize the importance of perception or evaluation of social circumstance. Researchers distinguish between received social support and perceived social support. Norris and Kaniasty (1996) emphasize that received support refers to actual helping behaviours an individual receives whereas perceived support refers to the perception that helping behaviours would be provided if needed. The authors note that received support and perceived support are not highly correlated. Thus, an individual might feel socially supported and reap the benefits of social support without actually receiving it. Research on social support consistently finds that perceived social support is more important in influencing well-being than received social support (Norris & Kaniasty, 1996). One possible explanation for this is that received support is usually limited to specific events in time whereas perceived support is an enduring feeling that help is available if needed.

Do happy participants appraise their social relationships in more positive ways than those who are less happy? To examine perceived social support, respondents were asked to agree/disagree with two statements. Results indicated that happy participants were significantly more likely to agree with both of the following statements “Although I spend a lot of time by myself, I have meaningful relationships” and “Although I spend a lot of time by myself, I feel supported by others.” This suggests that not happy and happy participants have different perceptions of social support and that happy people have more positive appraisals of social support. Since we did not examine real received social support we cannot be sure if average/high

participants' perceptions of social support accurately reflected received support. However, perception of support appears to be related with happiness.

The result that extraversion did not significantly contribute to happiness was somewhat unexpected due to previous findings that extraversion is the strongest personality predictor of happiness (Argyle et al., 1995). One possible explanation is that the lack of effect was due to the restricted range of participants. When range is restricted, the strength of the correlation is reduced (Andre & Hegland, 1998). Since the range was restricted during recruitment to people who spend a significant amount of time alone, the extraverts in the sample might not reflect "true" extraverts. In addition, extraversion is primarily a measure of sociability (Hills & Argyle, 2001) so if the happiness of extraverts is explained by their greater participation in social activities as some researchers suggest (Pavot et al., 1990), it follows that extraversion might not contribute to happiness for a sample of individuals who do not frequently engage in social activities.

### **The Loner Construct**

The final aim of this study was to examine the loner construct and to provide a preliminary empirical description of this population. Hypothesis 4 proposed that loners would differ from nonloners on measures of happiness, loneliness, social phobia, extraversion, and attachment style as well as on demographics information and questions concerning motivation for seeking solitude and perception of social support and meaningful relationships.

Self-declared loners displayed patterns of functioning that distinguished them from the group of participants who spend frequent time alone but who did not identify as loners. Overall, loners appeared to function significantly more poorly than nonloners.

In examining the loner construct, results showed that most individuals who identified as loners are less happy than average people and less happy than individuals who spend frequent

time alone but who did not identify as loners. They are lonely (in the top 14%), social phobic (they meet diagnostic criteria on the SPIN), and they are more introverted than extraverted. Loners are less likely to have secure attachment styles and more likely to prefer solitude than nonloners. Compared to nonloners, loners were less likely to report that they have meaningful or supportive relationships.

Why do individuals who identify as loners function more poorly? Self evaluations and perceptions likely play a significant role here as well. One possible explanation is that individuals identify as loners if they recognize their specific cluster of symptoms (for example, low happiness, high loneliness and high social phobia) as stereotypic. Friends and acquaintances may also perceive and interact with self-identified loners *as loners* and this in turn could perpetuate the individual's stereotypical characteristics. Researchers call this stereotype threat – the psychological effect whereby performance is undermined or disrupted for members of a stereotyped group when that stereotype is emphasized (Steele & Aronson, 1995). So, if an individual is stereotyped as a socially anxious loner, he or she might become more socially anxious. The loner stereotype may trigger a self-fulfilling prophecy that in turn perpetuates the stereotype.

The finding that self-declared loners had a specific cluster of symptoms that differentiated themselves from nonloners raises important questions about the loner construct. For instance, How does the pejorative loner stereotype influence negative self-appraisals or reinforce stereotypic characteristics? If individuals who identify as loners share a unique set of symptoms, should we recognize the construct in the psychosocial literature?

To further explore the loner construct, a post hoc analysis of the loners was conducted. This analysis yielded a happy subgroup who did not conform to the stereotype. Results revealed that 20.6% (N=77) of loners scored average/high in happiness. This subgroup obtained a very

high mean score of happiness on the SHS, a score close to the normal mean on the UCLA Loneliness Scale, a score well below the clinical cutoff point for social phobia on the SPIN, a high preference for solitude on the PSS, and a score reflecting more introversion on the EPQR-A. When this group was compared with the not happy loners, significant group differences were found on the measures of loneliness, social phobia, extraversion and preference for solitude. In addition their reported rates of mental illness (28%) were similar to the normal population rate (26%) (National Institute of Mental Health, <http://www.nimh.nih.gov>). In terms of social support, 89% of the happy subgroup indicated that they felt supported by others and 93% indicated that they had meaningful relationships despite spending a lot of time alone. In summary, a significant number of participants reported high levels of happiness and well-being, even those who identified as loners.

What is a loner? Not all individuals who spend frequent time alone identify as loners. However, the majority of participants in this study declared that they were loners. Results indicated that the majority of loners resemble the negative stereotype in popular culture. On average, loners functioned more poorly on measures of well-being than nonloners. They reported being less happy, more lonely and more socially anxious than those who spend significant time alone but who do not identify as loners. Despite these findings, a significant subgroup (20.6%) of loners reported high levels of happiness and differed greatly from the stereotype on measures related to well-being. Although these individuals indicated a high preference for solitude and were more introverted than extroverted, they did not report high levels of loneliness, social phobia or mental illness.

## **Implications**

Given the existence of a significant group of happy individuals who spend frequent time alone and a subgroup of happy self-declared loners, broad generalizations based on stereotypes about this population are clearly unjustified.

Although the majority of participants in this study reported poor levels of well-being, future researchers in this field would be remiss to overlook subgroups who do not exhibit poor well-being. The new effort within positive psychology to investigate advantages in domains which are typically dominated by a focus on pathology is an ideal avenue to further explore the subgroups identified here. Recognition of the benefits of solitude and acknowledgment of people who happily spend time alone will hopefully give pause to those who rely on stereotypes or those who pathologize this population.

The current findings also have important clinical implications, particularly for practitioners who discourage or pathologize solitary behaviour. Mental health professionals should note that the majority of individuals who spend frequent time alone do not report positive levels of well-being or happiness. However, they should also recognize that some individuals can live happy and fulfilling lives without frequently engaging with others. For some clients, time alone might be as beneficial as the advantages of interpersonal relationships. Increasing social contact for loners or individuals who spend frequent time alone is not a universal panacea. If happiness for those who spend frequent time alone is related to their evaluative judgments, as has been suggested here, working on reframing clients' perspectives rather than (or in addition to) reducing time alone should be considered. Clients who are unhappy and who spend frequent time alone might benefit from increasing social contact but they might also benefit by employing alternative strategies. For instance, self-reflection, religion and faith, and reducing television



watching have all been effective in minimizing feelings of loneliness (Perse & Rubin, 1990; Rokach & Brock, 1998).

Like adults, some children may be less inclined to participate in social activities. Although the present study did not include children, the findings could have important educational and familial implications, especially for how peers, educators and parents perceive children and adolescents who spend frequent time alone. The child who prefers to spend their free time by themselves should not necessarily provoke concern. More research on the positive aspects of spending time alone in childhood could help to weaken the social stigma associated with this population. Awareness campaigns could be implemented within the school system to reduce stigmatization or bullying of this population.

The fact that the majority of participants did not report positive levels of well-being or high happiness and did reflect the stereotype poses some challenges. For example, how can we eliminate or reduce a potentially damaging stereotype if the stereotype is primarily correct? Stereotypes should always be interpreted with great caution. Even when a stereotype appears to accurately portray members of a group, stereotypes do not by definition account for diversity. The identification of counter-stereotypes such as those found in the current study may help to limit generalizations and could contribute to a more diversified view of this population.

### **Strengths of Study**

This survey sampled a large (N=538) group of adults across a wide age range. Recruiting online provided the opportunity to target niche audiences that might otherwise have been unreachable. The study found two unique subgroups of individuals who have previously been neglected in the literature. In addition we were able to provide a preliminary description of the loner construct.

## **Limitations**

There are several limitations to this study. First, we recruited individuals who spent significant time alone and then asked them if they spent more time alone than others they know. If subjects replied with an affirmative answer they were included in the study. The foremost limitation of this study is that participants were not asked to estimate hours spent alone or to track hours in a longitudinal study. Since the questions posed was subjective, we cannot be sure if the sample was representative of those who actually spent more time alone than “others.” Since we did not measure specific hours of time spent alone there is no way of determining if happy participants spent less time alone or more time alone than not happy participants. Although we employed measures such as the Preference for Solitude Scale and the EPQR-A to confirm participants’ reports of spending time alone, we did not exclude participants based on their scores on these measures. Concurrent validity would be strengthened if cutoff scores on these two measures were built into the inclusion criteria.

In generalizing the results, it should also be taken into account that there was likely a sampling bias. The ratio of happy participants found in the present study might not be representative of other populations of individuals who spend frequent time alone. Since we recruited on solitude advocacy websites as well as on support group websites for loneliness, our statistic that 21% of participants reported average/high levels of happiness could be over representative or under representative.

The finding that the entire sample of individuals had high rates of mental illness and unemployment should also be taken into account when drawing conclusions about this demographic. Mental disorders usually lead to poor well-being (Packer, Husted, Cohen, & Tomlinson, 1997) and those who are unemployed have lower levels of well-being (Diener &

Seligman, 2004). Efforts to control for these (or other confounding ) variables would be useful in the future.

### **Future Research**

Since the majority of participants who reported spending frequent time alone also reported poor well-being, research should continue to investigate the roots of unhappiness and poor mental health for those who spend frequent time alone. Research on strategies for improving social relationships and fostering community and social support should also continue to be explored.

How can future researchers acknowledge subgroups such as happy loners within a system that is based on generalizations? Positive psychology provides an ideal avenue for exploring subgroups such as the ones discussed in the current study. Further research might work within a positive psychology framework by identifying similar subgroups and focusing on issues such as the psychological or personal benefits of spending time alone. Is spending time alone correlated with creative productivity? What do happy individuals seek and find in solitude?

Future research should examine the subject of spending time alone using qualitative phenomenological approaches. Since very little is known about the loner construct, a grounded theory study might help to elucidate key concepts. Some respondents in the current study commented that their life experiences were not captured by the quantitative nature of the study. Interviews or case studies could provide a more in depth examination of the subject. Although a content analysis was not conducted here, questions posed in this study such as “what is a loner?” and “why are you/are you not a loner?” could be analyzed qualitatively in the future.

Research should investigate positive experiences of spending time alone in special populations such as children, adolescents and the elderly. As practices of spending time alone are

likely to vary across the globe, cross-cultural studies should be conducted to examine perceptions and experiences of spending time alone in individualist and collectivist cultures. Future research might also investigate personality traits, childhood history, and activity patterns of individuals who spend frequent time alone.

Studies should also employ more precise methods to measure time spent alone. Longitudinal studies which require participants to track the amount of time spent alone daily would provide a more credible and accurate estimate.

Given the widespread use of the internet as a social tool, future research should focus on the relationship of technology to spending time alone. Does socializing online provide the same benefits as real life engagement? Do individuals who spend more time alone use social networking sites more frequently?

Although schizoid personality disorder and avoidant personality disorder were rarely listed when subjects were asked to list mental diagnoses, the symptoms of both disorders suggest that there might be some overlap with the loner construct. Future research might investigate if self-declared loners can be placed within these categories or if they represent a unique construct of their own.

## **Conclusion**

This study was divided into two main sections. The first half of the study investigated a neglected population by examining happiness and well-being in relation to spending time alone. The second half of the study addressed the loner construct and sought to provide an empirical description of a stereotyped population.

The primary result of this study was the finding of a significant percentage of happy individuals who spend frequent time by themselves. Although most participants reported poor

levels of well-being, data from the happy and well-adjusted subgroup lends support to a community of thousands of individuals online who value time alone and who discredit the loner stereotype. The identification of happiness within the broad group of participants and self-declared loners raises questions about the generalizability of the correlation between infrequent social activity and poor well-being.

Spending frequent time alone may not in itself be problematic or dysfunctional. The results presented here indicate that unhappiness and poor well-being do not inevitably accompany spending frequent time in solitude, even for people who declare that they are loners. Rather, unhappiness likely accompanies spending time alone when combined with factors such as loneliness, social phobia, unemployment, or negative perceptions or appraisals of lifestyle.

In defining the loner construct, this study showed that individuals who spend significant time by themselves do not necessarily identify as loners. Although a subgroup of happy loners was identified, the majority of self-declared loners in this study exhibited poor well-being.

The aim of this research was not to discount past findings on the consequences of spending frequent time alone, but to acknowledge the possibility of alternative positive experiences. The subgroups identified in this research demonstrate that some individuals manage to maintain positive levels of well-being despite their solitary lifestyles. Spending frequent time alone is not always an indication of dysfunction. As with all stereotypes, the loner stereotype does not reflect diversity and it certainly does not define all individuals who spend frequent time alone. It is hoped that continued recognition of the differences that exist among those who spend frequent time by themselves will help to weaken the negative stereotype associated with this population.

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## Appendix A: Ethics Approval



The University of British Columbia  
Office of Research Services  
**Behavioural Research Ethics Board**  
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

### CERTIFICATE OF APPROVAL - MINIMAL RISK

<b>PRINCIPAL INVESTIGATOR:</b> Beth E. Haverkamp	<b>INSTITUTION / DEPARTMENT:</b> UBC/Education/Educational & Counselling Psychology, and Special Education	<b>UBC BREB NUMBER:</b> H09-02350
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<b>INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:</b>	
Institution	Site
UBC	Vancouver (excludes UBC Hospital)
Other locations where the research will be conducted: The research will be conducted using questionnaires online and through the mail.	

**CO-INVESTIGATOR(S):**  
Jasmine Cady

**SPONSORING AGENCIES:**  
UBC Faculty of Education

**PROJECT TITLE:**  
An Investigation of Individual Experiences of Time Spent Alone

**CERTIFICATE EXPIRY DATE:** March 8, 2011

<b>DOCUMENTS INCLUDED IN THIS APPROVAL:</b>	<b>DATE APPROVED:</b> March 8, 2010
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Document Name	Version	Date
<b>Consent Forms:</b>		
Mail package consent form	1	March 2, 2010
Online consent form	2	March 2, 2010
<b>Advertisements:</b>		
RecruitmentAd	1	January 13, 2010
Recruitment Poster	1	January 13, 2010
Facebook screenshot	1	March 2, 2010
Online text	1	March 2, 2010
<b>Questionnaire, Questionnaire Cover Letter, Tests:</b>		
Preference for Solitude	1	September 18, 2010
Loner Questionnaire	1	September 18, 2009
UCLA Loneliness Scale	1	September 18, 2010
DemographicsQuestionnaire	1	January 13, 2010
Social Phobia Inventory	1	September 18, 2009
Relationship Questionnaire	1	September 18, 2009
EPQR-A	N/A	February 11, 2010
Subjective Happiness Scale	1	September 18, 2009
<b>Other Documents:</b>		
Greeting Letter	1	January 13, 2010
<b>Other:</b> <a href="http://timealoneresearch.blogspot.com/">http://timealoneresearch.blogspot.com/</a>		

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

**Approval is issued on behalf of the Behavioural Research Ethics Board  
and signed electronically by one of the following:**

\_\_\_\_\_  
Dr. M. Judith Lynam, Chair

## Appendix B: Consent Form

### An Investigation of Individual Experiences of Time Spent Alone Consent Form and Link to On-line Survey



Department of Educational & Counselling  
Psychology, and Special Education  
UBC Faculty of Education  
The University of British Columbia  
2125 Main Mall, Vancouver, BC V6T 1Z4

**Principal Investigator:** Beth Haverkamp, Ph.D., Associate Professor  
Department of Educational and Counselling Psychology and Special Education, University of British Columbia.

**Co-Investigator:** Jasmine Cady  
Department of Educational and Counselling Psychology and Special Education, University of British Columbia.

This research is being conducted in partial fulfillment of Jasmine Cady's M.A thesis research project. The final results of this study may be made public.

**Sponsor:** Faculty of Education Graduate Research Award 2008-2009

**Purpose:**

The purpose of this project is to study the personal experiences of individuals who spend frequent time by themselves. English speaking individuals who spend a significant amount of time alone, who are over the age of 25, and who reside in North America are being invited to take part in this research study.

**Study Procedures:**

If you decide to participate in this study you will be asked to complete a number of questionnaires in the form of an online survey. The study will be completed in one session and should take 20-30 minutes.

**Potential Risks:**

There are no known risks associated with this study. Participation is voluntary and no individuals will be identified. In the event that participants experience questions about their choices to spend time alone, a list of resources for further information will be made available.

**Potential Benefits:**

It is hoped that the study will be informative and educational for those who choose to Participate. Participants who provide their email address will have the opportunity to view a summary of the results at the conclusion of the study.

**Confidentiality:**

If you choose to participate in this study your identity will be kept strictly confidential. Your name will not appear in any report or publication of the research and documents will be identified only by code number. Your data will be safely stored in accordance with ethical guidelines and only research staff will have access to this information. The online survey is hosted by Survey Monkey, which is an online survey company located in the USA. The web-based survey is a secure program that uses encryption software. If

you choose to participate in the survey, you understand that your responses will be collected through the use of Survey Monkey. The privacy policy for Survey Monkey can be viewed at <http://www.surveymonkey.com/>

**Remuneration/Compensation:**

Subjects who are interested in entering a draw for \$25 gift cards to Amazon books may leave their name and email address in the space provided below. Your name will not be associated with this questionnaire and all contact information will be stored in a securely locked cabinet immediately after it is received.

**Withdrawal from the Study:**

You can stop participating in the study at any time, for any reason. If you decide to stop participating, you will still be eligible to have your name entered in the draw if you have provided an email address.

**Contact for concerns about the rights of research subjects:**

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail to [RSIL@ors.ubc.ca](mailto:RSIL@ors.ubc.ca).

**Consent:**

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy. By completing this survey, you give your consent to participate.

You have the option of entering a draw for an Amazon gift card. Please provide your name and email address below if you wish to enter the draw. Please be advised that your name will not be associated with any questionnaire and that contact information will be kept strictly confidential.

Name \_\_\_\_\_ Email \_\_\_\_\_

If you wish to receive a summary of the results of this study after it's completion, please provide your email address below. Please be advised that your name will not be associated with any questionnaire and that contact information will be kept strictly confidential.

Email \_\_\_\_\_

## Appendix C: Demographics Questionnaire

1. Please indicate your age \_\_\_\_\_
2. Please indicate your gender \_\_\_\_\_
3. Do you live in a rural or urban environment? \_\_\_\_\_
4. Please list the people you live with (e.g. sister, mother, roommate) \_\_\_\_\_
5. Please indicate your marital status \_\_\_\_\_
6. What is your occupation? \_\_\_\_\_
7. Have you ever sought professional help for relationship problems? \_\_\_\_\_
8. Have you ever been diagnosed with a mental disorder? \_\_\_\_\_
9. If so, please list \_\_\_\_\_



## Appendix E: UCLA Loneliness Scale

### UCLA Loneliness Scale (Version 3)

*Instructions:* The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by writing a number in the space provided. Here is an example:

How often do you feel happy?

If you never felt happy, you would respond "never"; if you always feel happy, you would respond "always."

NEVER

1

RARELY

2

SOMETIMES

3

ALWAYS

4

- \*1. How often do you feel that you are "in tune" with the people around you? \_\_\_\_\_
2. How often do you feel that you lack companionship? \_\_\_\_\_
3. How often do you feel that there is no one you can turn to? \_\_\_\_\_
4. How often do you feel alone? \_\_\_\_\_
- \*5. How often do you feel part of a group of friends? \_\_\_\_\_
- \*6. How often do you feel that you have a lot in common with the people around you? \_\_\_\_\_
7. How often do you feel that you are no longer close to anyone? \_\_\_\_\_
8. How often do you feel that your interests and ideas are not shared by those around you? \_\_\_\_\_
- \*9. How often do you feel outgoing and friendly? \_\_\_\_\_
- \*10. How often do you feel close to people? \_\_\_\_\_
11. How often do you feel left out? \_\_\_\_\_
12. How often do you feel that your relationships with others are not meaningful? \_\_\_\_\_
13. How often do you feel that no one really knows you well? \_\_\_\_\_
14. How often do you feel isolated from others? \_\_\_\_\_
- \*15. How often do you feel you can find companionship when you want it? \_\_\_\_\_
- \*16. How often do you feel that there are people who really understand you? \_\_\_\_\_
17. How often do you feel shy? \_\_\_\_\_
18. How often do you feel that people are around you but not with you? \_\_\_\_\_
- \*19. How often do you feel that there are people you can talk to? \_\_\_\_\_
- \*20. How often do you feel that there are people you can turn to? \_\_\_\_\_

#### *Scoring:*

Items that are asterisked should be reversed (i.e., 1 = 4, 2 = 3, 3 = 2, 4 = 1), and the scores for each item then summed together. Higher scores indicate greater degrees of loneliness.

## Appendix F: Social Phobia Inventory

### SOCIAL PHOBIA INVENTORY (SPIN)

Please indicate how much the following problems have bothered you during the past week. Mark only one box for each problem, and be sure to answer all items.

	Not at all	A little bit	Somewhat	Very much	Extremely
1. I am afraid of people in authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I am bothered by blushing in front of people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Parties and social events scare me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I avoid talking to people I don't know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Being criticized scares me a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Fear of embarrassment causes me to avoid doing things or speaking to people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Sweating in front of people causes me distress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I avoid going to parties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I avoid activities in which I am the center of attention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Talking to strangers scares me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I avoid having to give speeches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I would do anything to avoid being criticized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Heart palpitations bother me when I am around people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I am afraid of doing things when people might be watching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Being embarrassed or looking stupid is among my worst fears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I avoid speaking to anyone in authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Trembling or shaking in front of others is distressing to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## **Appendix G: EPQR-A**

1. Are you a talkative person?
2. Are you rather lively?
3. Can you easily get some life into a rather dull person?
4. Do you tend to keep in the background on social occasions?
5. Are you mostly quiet when you are with other people?
6. Do other people think of you as being very lively?



## Appendix H: Preference for Solitude Scale

### THE PREFERENCE FOR SOLITUDE SCALE

---

*Directions.* For each of the following pairs of statements, select the one that best describes you. In some cases neither statement may describe you well or both may describe you somewhat. In those cases, please select the statement that best describes you or that describes you more often.

1. a. I enjoy being around people.  
b. I enjoy being by myself.
  2. a. I try to structure my day so that I always have some time to myself.  
b. I try to structure my day so that I always am doing something with someone.
  3. a. One feature I look for in a job is the opportunity to interact with interesting people.  
b. One feature I look for in a job is the opportunity to spend time by myself.
  4. a. After spending a few hours surrounded by a lot of people, I usually find myself stimulated and energetic.  
b. After spending a few hours surrounded by a lot of people, I am usually eager to get away by myself.
  5. a. Time spent alone is often productive for me.  
b. Time spent alone is often time wasted for me.
  6. a. I often have a strong desire to get away by myself.  
b. I rarely have a strong desire to get away by myself.
  7. a. I like to vacation in places where there are a lot of people around and a lot of activities going on.  
b. I like to vacation in places where there are few people around and a lot of serenity and quiet.
  8. a. When I have to spend several hours alone, I find the time boring and unpleasant.  
b. When I have to spend several hours alone, I find the time productive and pleasant.
  9. a. If I were to take a several-hour plane trip, I would like to sit next to someone who was pleasant to talk with.  
b. If I were to take a several-hour plane trip, I would like to spend the time quietly.
  10. a. Time spent with other people is often boring and uninteresting.  
b. Time spent alone is often boring and uninteresting.
  11. a. I have a strong need to be around other people.  
b. I do not have a strong need to be around other people.
  12. a. There are many times when I just have to get away and be by myself.  
b. There are rarely times when I just have to get away and be by myself.
- 

*Note.* Scale score is the number of times the test taker selects the italicized option.

### *Method*

*Subjects.* Eighty-three male and female undergraduates participated in the experiment for class credit.

*Procedure.* Subjects were administered the twelve items shown in Table 1.

## Appendix I: Relationship Questionnaire

### 1. Following are descriptions of four general relationship styles that people often report.

Please read each description and CIRCLE the letter corresponding to the style that best describes you or is closest to the way you generally are in your close relationships.

A. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

B. I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

C. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

D. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

**Please rate each of the following relationship styles according to the extent to which you think each description corresponds to your general relationship style.**

It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

Not at all like me			somewhat like me			Very much like me
-----------------------	--	--	---------------------	--	--	----------------------

1      2      3      4      5      6      7

I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

Not at all like me			somewhat like me			Very much like me
-----------------------	--	--	---------------------	--	--	----------------------

1      2      3      4      5      6      7

I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

Not at all like me			somewhat like me			Very much like me
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1      2      3      4      5      6      7

D. I am comfortable without close emotional relationships, It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

Not at all like me		somewhat like me			Very much like me	
1	2	3	4	5	6	7

## Appendix J: Additional Questionnaire

When answering the following questions please note the following. In this study, the terms “alone” “solitude” or “by myself” refer to the absence of in-person interaction with others. However, the terms can also apply to situations where you might be around others but still alone, such as sitting by yourself in a crowded cafe, lying on the grass in a public park or alone in a room but in the same house as your family.

### Part One.

Please indicate if you agree or disagree with the following statements:

1. Compared to others, I spend more time by myself.
2. Although I spend a lot of time by myself, I have meaningful relationships.
3. The main reason I seek solitude is because I enjoy it.
4. The main reason I seek solitude is because I have a low desire to engage with others.
5. Although I spend a lot of time by myself, I feel supported by others.
6. Although I spend a lot of time by myself, I'd like to spend more time with others.
7. Please indicate the top five activities that you do when you spend time alone in your FREE TIME. For example: cooking, watching television, painting, fixing cars etc.
8. Are you a loner?
9. Why or why not?
10. What is a loner?

## **Appendix K: Additional Data for Loners and Nonloners**

### **Independent Samples T-Tests**

Loners as a group scored lower on subjective happiness as measured by the Subjective Happiness Scale (M=4.2) than nonloners (M=4.7). A t-test was calculated to determine if this difference was significant. The test for equality of variance was significant ( $P < .001$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the SHS scale for the two groups were significantly different;  $t(536) = 3.87, p < .001$ . In summary, the independent t-test revealed a significant group difference, loners were significantly less happy than nonloners.

Loners as a group scored higher on loneliness on the UCLA scale (M=53.6) than nonloners (M=46). A t-test was calculated to determine if this difference was significant. The test for equality of variance was not significant ( $p = .053 < .05$ ). We used the t-test with the assumption that the variances are equal. The results showed that the means of the UCLA scale for the two groups were significantly different;  $t(536) = -7.09, p = 0.000$ . In summary, the independent t-test revealed a significant group difference, indicating that self-declared loners were significantly more lonely than nonloners.

Loners as a group scored higher on social phobia on the SPIN (M=22.8) than nonloners (M=17.1). Loners met diagnostic criteria for social phobia whereas nonloners did not. A t-test was calculated to determine if this difference was significant. The test for equality of variance was significant ( $p < .001$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the SPIN for the two groups were significantly different;  $t(387) = -5.14, p < .001$ . In summary, the independent t-test revealed a significant group

difference, indicating that self-declared loners were significantly more socially phobic than nonloners.

Loners as a group scored higher on the Preference for Solitude Scale ( $M=10.0$ ) than nonloners ( $M=8.1$ ). A t-test was calculated to determine if this difference was significant. The test for equality of variance was significant ( $p < .001$ ). We used the t-test with the assumption that the variances are not equal. The results showed that the means of the SPIN for the two groups were significantly different;  $t(251)=-7.18, p < .001$ . In summary, the independent t-test revealed a significant group difference, indicating that loners significantly preferred solitude over nonloners.

Loners as a group scored lower on the EPQR-A extraversion measure ( $M=2.2$ ) than nonloners ( $M=3.6$ ). A t-test was calculated to determine if this difference was significant. The test for equality of variance was not significant ( $p=.888 < .05$ ). We used the t-test with the assumption that the variances are equal. The results showed that the means of the EPQR-A scale for the two groups were significantly different;  $t(536)=7.42, p < .001$ . In summary, the independent t-test revealed a significant group difference, indicating that loners scored significantly higher on introversion than nonloners.

### **Additional Questions (loners and nonloners)**

Questions were also asked about motivation for spending time alone and perceived social support/relationships. In assessing reasons for seeking solitude, loners were more likely than nonloners to agree with the statement “The main reason I seek solitude is because I enjoy it” and were also more likely to agree with the statement “The main reason I seek solitude is because I have a low desire to engage with others.” In assessing perceptions of social support/relationships, self-declared loners were less likely to agree with the statement “Although I spend a lot of time

by myself I have meaningful relationships.” Loners were also less likely to agree with the statement “Although I spend a lot of time by myself, I feel supported by others.” A Chi-square test revealed that these differences were all significant. Results are presented in Table K.1

Table K.1  
*Additional Questions for Loners and Nonloners*

Statement	Loner	Nonloner
The main reason I seek solitude is because I enjoy it.	77%	67%
The main reason I seek solitude is because I have a low desire to engage with others.	56%	23%
Although I spend a lot of time by myself I have meaningful relationships.	73%	90%
Although I spend a lot of time by myself, I feel supported by others.	65%	84%

Table 4.6 indicates the percentage of loners and nonloners who agreed with statements concerning motivation for spending time alone and perceived social support. The two groups were statistically different on all four questions.