

CRITICAL ANALYSIS PAPER

UNDERSTANDING LONELINESS USING ATTACHMENT AND SYSTEMS THEORIES & DEVELOPING AN APPLIED INTERVENTION.

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Being alive means being in a body-a body separated from all other bodies. And being separated means being alone. This is true of every creature, and it is true of man more than any other creature. He is not only alone; he also knows that he is alone. Aware of what he is, he therefore asks the question of his aloneness. He asks why he is alone and how he can overcome his being alone. He cannot stand it; but cannot escape it either. It is his destiny to be alone and to be aware of it. Not even God can take away this destiny from him.

Paul Tillich, 1980, p. 547.

From the early writings of Weiss (1973) through to more modern publications (Rotenberg & Hymel, 1999), numerous authors have lamented the fact that loneliness is a very pervasive, yet little researched phenomenon. For example, Rotenberg (1999a) writes, "Given the apparent universality of loneliness and its link to psychosocial maladjustment, it is truly surprising that research on loneliness has emerged rather recently in the history of psychology...primarily within the past 25 years" (p. 4). Both Rotenberg (1999a) and Perlman and Landolt (1999) acknowledge that research and publications on loneliness have been increasing rapidly over the past few years. With the increasing publications and research, comes also an increasing need to understand previous theories concerning loneliness, and also to generate new theories of loneliness. This paper is an attempt to look back at theoretical work on loneliness and suggest new ways of conceptualizing loneliness.

The phenomenon of loneliness will be analyzed from three different theoretical perspectives, namely attachment theory, systems theory, and applied intervention within four main sections. There will be special emphasis on the period of adolescence and adulthood in the attachment theory section, and on the adolescent period in the systems theory section. The first section will describe an adapted version of three dimensions of loneliness put forward by de Jong-Gierveld and Raadschelders (1982). The second section utilizes attachment theory as a theoretical foundation within which to explain possible developmental origins of loneliness. Various authors (e.g., Cassidy & Berlin, 1999; Hojat, 1989; Rokach, 2000) have suggested that adolescent and adult loneliness may have some of its origins in the historical attachment relationship between the lonely person and his/her caregivers. The third section employs systems theory, and in particular Olson's (1993) Circumplex Model of marital and family systems, to explore how different family systems can create environments, which can sustain feelings of loneliness within adolescents. The last section summarizes the suggested causes of loneliness via attachment and systems theories and cites several intervention strategies, which utilize insights provided by both attachment and systems theories.

Dimensions of Loneliness

Of particular interest in this paper is the three dimensions of loneliness put forward by de Jong-Gierveld and Raadschelders (1982) which are: *types of deprivation, emotional characteristics, and time perspective*. Slight modifications have been made to the dimensions that were originally proposed by de Jong-Gierveld and Raadschelders (1982) to reflect developments in the field since their publication.

Three Dimensions of Loneliness

Type of deprivation. Popular definitions of loneliness (e.g., Perlman & Peplau, 1981; Weiss, 1973) suggest some type of social relationship deprivation. While called by different names, two types of deprivation have been distinguished. Weiss (1973) makes the distinction between deprivation of an intimate other vs. deprivation in a social network. These he called loneliness of emotional isolation (emotional loneliness for short) and loneliness of social isolation (social loneliness for short) respectively. This distinction between two types of deprivation suggest alternative theories about whether loneliness can be described as an actual need that exists because of the absence of required relationships (emotional loneliness) or a cognitive discrepancy between desired and achieved patterns of social relations (social loneliness). Cassidy and Berlin (1999) make the distinction between loneliness that has its origins in the attachment system versus loneliness having its origins in a sociable system (or social network). These are two systems that can operate independently of each other, and can simultaneously or independently arouse feelings of loneliness within a person. Highlighted in this paper will be the connections between emotional loneliness and attachment theory and between social loneliness (cognitive discrepancy) and systems theory approach.

Emotional characteristics. A less emphasized but important dimension of loneliness concerns the range of feelings or affect (sometimes described as painful, sad, unpleasant and distressing) experienced from mild to severe. Theorists have argued the importance of its emphasis within any definition of loneliness (Gordon, 1976; Parkhurst & Hopmeyer, 1999; Peplau & Perlman, 1982;

Stokes, 1989; Weiss, 1989). Describing loneliness as an emotional phenomenon also implies that loneliness is a powerful motivator. Indeed Flanders (1982) argues that loneliness may be a feedback mechanism designed to alert the individual that there is a deficiency in social relationships and provide motivation to return to the appropriate social level. On the other hand, Parkhurst and Hopmeyer (1999) argue that emotions can also act as inhibitors, and affect people's ability for successful social interaction. These concepts are useful when applying attachment and systems theories to loneliness.

Time perspective. The time perspective takes into account the duration of the feeling of loneliness within a person. There is the traditional view of chronic loneliness in addition to a less chronic, often transient state of loneliness that may be functional (Larson, 1999; Suedfeld, 1982). There is a need then to differentiate between two possibly qualitatively different states of loneliness. Chronic loneliness is severe type of loneliness, which is generally intense and is an almost omnipresent state of loneliness, regardless of situation or circumstance. The other type of loneliness is less severe and can be adaptive. Various researchers have referred to it differently, such as state loneliness or transient loneliness. According to Duck (1992) this type of loneliness is more as a result of the situation in which social interaction is deficient rather than due to some characteristic of the person (e.g., moving to a new environment).

The time perspective is an important component for this paper in understanding how attachment theory and systems theory can be used to explain loneliness. Transient loneliness conceivable can be caused to a greater degree by random events rather than due to a persistent cause over time. By looking at individuals with more chronic loneliness, useful theoretical questions can be asked about what persistent causes may be present that keeps a person feeling lonely.

Human Development and Attachment Theory

Two major tasks of a developmental theory are to describe changes that take place and to explain these changes (Miller, 1993). This section will seek

to describe and explain how parent-child attachments and subsequent adolescent and adult attachments can result in feelings of loneliness. There are three main components in this section: an outline of attachment theory, applying attachment theory to the three dimensions of loneliness, and the conclusion.

Attachment Theory.

Early attachment theory. John Bowlby originally proposed attachment theory and defined attachment as "any form of behavior that results in a person attaining or retaining proximity to some other differentiated and preferred individual, usually conceived as stronger and/or wiser" (Bowlby, 1973, p. 292). He conceived the attachment system as an evolutionary mechanism developed for the survival of the species by helping offspring maintain close proximity to a caregiver. His theory came from observations of nonhuman primates, in which he observed behaviors geared towards the young maintaining contact with the caregiver. He also observed similar behavior among orphans in hospitals. If the young were separated from their caregivers they would exhibit distressful behavior and begin to actively seek out the caregiver. This distress experienced because of separation of the young from the caregiver became known as *separation distress*. There would also be protests if the caregiver wishes to leave the young and greeting behavior upon the return of the caregiver. Among non-primates, similar types of attachment occur as well, such as imprinting or object fixation (Hojat, 1989). This attachment is important because the young are usually defenseless against predators and needs the caregiver's protection.

Working models. Working models represent the internalized development of the relationship between the caregiver and the child. Unlike some other non-primates, Human newborns do not immediately form an attachment to the first object they see. During the first six to nine months, the infant slowly learns to develop attachments to a few individuals. When infants form these attachments, a synchronicity develops between the infant and the caregiver. Infants learn that certain behaviors are expected when certain cues are presented to the infant and in much the same way, the caregiver learns that certain actions performed by the infant require certain types of behaviors.

Over time then, infants develop (internal) working models in which they have learned expectations about the responsiveness of various caregivers. These working models help not only with interactions with the caregiver, but also generalize to new situations and people (Miller, 1993).

According to Feeney, Noller, & Roberts (1999) working models function to "predict the behavior of others and to plan one's own behavior to achieve relational goals" (p. 192). Attachment theorists usually divide working models into *models of self* and *models of other*. These subcomponents refer to positive or negative schemas about one's capacity and expectations of others in relational settings respectively. According to Bowlby (1973) these two models usually develop within the individual in relation to each other, usually in a complementary fashion. Therefore if a caregiver is unresponsive and insensitive to the needs of the individual, then the individual usually develops negative models of self and other. However, Bartholomew and Horowitz (1991) have for example, proposed four different types of emotional relationships based on variations of valence between models of self and other. The assumption is that while models of self and other tend to be complementary, they can also vary independently of one another. Therefore for example, one can have a positive model of other and a negative model of self. Further research by Feeney et al. (1999) demonstrates that each of the four types have consistent cognitive, behavioral, and emotional responses to specific events.

Attachment styles. Working models provide the foundation upon which attachment styles develop. Attachment styles are derived from the work of Ainsworth, Blehar, Waters, and Wall (1978). Ainsworth et al. (1978) developed an experiment called the Strange Situation experiment. In this experiment several steps were involved, including observations of the child's behavior; with the parent, when the parent was not present, and when a stranger was present (both with and without the parent there). The absence of the parent aroused separation distress for the infant. But Ainsworth et al. noticed that the intensity of the separation distress were different for different infants, and was related to the strength of the attachment of the infant to the

parent/caregiver. The results from this experiment lead to the development of attachment styles between the infant and caregiver. Ainsworth et al. highlighted three basic attachment styles: secure, avoidant, and anxious-ambivalent. The researchers observed that securely attached infants could explore their environments when the caregiver was present, displayed some degree of separation distress when a parent left but were easily comforted by their parent upon their return. The parent of avoidant infants was generally distant or rigid and infants tended to avoid contact with them. Anxious-ambivalent infants had a parent who showed inconsistent caregiving behavior, and were showed extreme separation distress when the parent left, and ambivalence or anger upon return (Feeney et al., 1999).

Recent works on attachment styles have suggested that there are four attachment styles rather than three. Bartholomew (1990) initially proposed a four-group attachment style, based in part on the positive and negative variations in the working models of self and other mentioned previously. They are: secure (positive self and other), preoccupied (negative self, positive other), dismissing (positive self, negative other), and fearful (negative self and other). Feeney et al. (1999) cite several researches that confirm these four attachment styles based on cluster analysis of individual items based on attachment theory, including Bartholomew and Horowitz (1991) empirical testing of the model. These four attachment styles, however, may be an elaboration of the three-group attachment style model originally proposed by Ainsworth et al. (1978). Feeney et al. proposes that secure attachments in both models are the same. The preoccupied attachment style is similar to the anxious-ambivalent attachment style, and the avoidant attachment style can be separated into either the dismissing or fearful attachment styles. This paper will focus on the three-group attachment style model given its longer research history and conceptual similarity to the four-group model.

Attachment theory and adolescents/adults. Whilst initial theorizing of attachment theory has focused on childhood, the theory was later applied to adult romantic relationships, particularly through the work of Phillip Shaver

and Cindy Hazan. There are several important similarities and differences between the attachments that occur in childhood and adulthood. Shaver and Hazan (1989) point out six similarities between childhood and adult (and adolescent) attachments. First, is that the quality of the attachment is dependent upon the reciprocation, sensitivity and responsiveness of the attachment figure/caregiver. Second, securely attached individuals (infants/adults) are generally happier and more adaptive than insecurely attached individuals. Third, the attachment mechanism of maintaining proximity to the attachment figure is displayed in both adult and infant attachments. Fourth, separation from an attachment figure causes extreme distress (separation distress), and the initiation of attachment behaviors in an attempt to regain contact with the attachment figure. Fifth, in both adults and infants, there is an "intense sensitivity" when displaying discoveries and achievements to the attachment figure for approval. And lastly, both attachments entail a certain degree of baby talk or motherese type communication.

Feeney et al. (1999) note that there are two important differences between childhood attachment and adult attachment. The first is that childhood attachments are asymmetrical, meaning that the relationship is usually complimentary than reciprocal. Second, there is almost always a sexual component involved in adult attachments.

Attachment transition from infants to adults. Kerns (1994) proposes that the attachment style at one developmental stages helps to influence the resultant attachment styles at the next developmental stage. Her analysis of attachment theory and friendship suggests that working models provide a mechanism of continuity from early childhood through to early adulthood. Working models provide the continuity between infant and adult attachment systems by maintaining expectations derived during childhood of the attachment figure's behavior and one's capacity in social situations. In addition, each stage of development provides the foundation for the next stage and for example, having the advantages of a secure attachment would help a child develop secure attachments with peers during adolescence. Shaver, Collins, and Clark (1996)

have also proposed that expectations associated with working models tend to become self-fulfilling over time, so for example, being rejected can cause one to develop expectations of rejection and subsequently behave in ways that increase the likelihood of rejection. These mechanisms provide continuity from infant to adult attachment. Klohnen and Bera (1998) for example, have analyzed longitudinal data of approximately 100 women from ages 21 to 52 and found not only consistent working models and thus attachment styles during the 31 years of study, but also that these working models were related to self-report childhood environments measured at age 21. This research suggests that working models are relative stable over the lifespan of the individual. More will be said later.

Conclusion. From this brief outline of attachment theory, several concepts are useful in their application to loneliness. The first is the idea of the attachment figure or caregiver. There seems to be some inherent drive to maintain contact with a person who can provide security and care. Second, the idea of working models, or the underlying expectations individuals have about their own capacities (model of self) and other people's responsiveness (model of other) in social situations. The third useful concept is that of attachment styles. Based on the experiments of Ainsworth et al. (1978), three attachment styles were found; secure, avoidant and anxious-ambivalent. Later work by Bartholomew (1990) suggests four attachment styles instead of three based on positive and negative models of self and other. Finally, attachment theory is applicable not only to infants, but also to adults as well. For example, Kerns (1994) outlines how early attachment experiences can influence later attachment. *Attachment Theory and Loneliness.*

The dimensions of loneliness presented will be explored during the period of adolescence and adulthood using attachment theory in this section of the paper to answer three basic questions: what type of deprivation is loneliness according to attachment theory, why is the emotional characteristics of loneliness described as painful and unpleasant, and lastly what causes certain individuals to experience chronic loneliness? Each dimension of loneliness and related questions will be looked at in turn.

Type of deprivation. Attachment theory suggests that the type of deprivation experienced by lonely individuals is one of an objective absence of an attachment figure rather than a subjective perceptual discrepancy. Robert Weiss was one of the first loneliness researchers to suggest a link between attachment theory and loneliness. His initial research into loneliness led to observations that individuals experienced loneliness due to the loss of a romantic partner. Once another romantic partner was found, the loneliness "magically" disappeared. He also later theorized on the period of adolescence in which he suggested that the adolescent relinquishes his/her parent as the primary attachment figure. Instead the adolescent searches for a romantic partner to form an adult attachment with. During this transition period adolescents experience loneliness as they search out for their romantic attachment partner. Just as in newborns, there is an internal mechanism designed to find and form an attachment with an individual, Weiss (1989) suggests that a similar process takes place during adolescence. The loneliness that adolescents experience therefore is as a result from this missing attachment figure, as parents are relinquished as attachment figures and a search ensues to find an attachment figure and romantic partner.

Emotional characteristics. Weiss (1973, 1989) defined loneliness as separation distress without an object, which is very much an affective description of loneliness. When an attachment figure is absent from an individual, separation distress results. Shaver and Hazan (1989) have cited research that shows that both infants and adults experience separation distress when an attachment figure is absent. This separation distress is unpleasant and painful. Weiss (1973, 1989) sees this affective experience of separation distress as the same as loneliness, and descriptions of the two experiences are similar. The emotional experience also provides motivation as well to find the lost attachment figure. Just as Flanders (1982) suggested that loneliness may be a signal for a social deficiency and motivation to return to the optimum level, similarly, separation distress seems to perform much of the same

function. Indeed, as Weiss (1973) argues, in some instances they may be one and the same thing. The loneliness is the experience of separation distress.

Time perspective. The time perspective dimension is an important dimension in separating individuals who experience separation distress and are able to form new attachments or re-establish old attachments, and those individuals who experience separation distress and are unable to form new attachments or re-establish old ones. It is a persistent absence of an attachment figure that can make loneliness become chronic. There are several inter-related explanations for this inability to maintain or form attachments. The first describes interconnections between attachment styles, working models and loneliness. The second looks at attachment theory, personal intimate relationships and loneliness and lastly working models, coping styles and loneliness. Each of these will be looked at in turn.

Attachment styles, working models and loneliness. Working models and the resultant attachment styles provide theoretical insights into the processes underlying individuals who suffer from persistent, chronic loneliness by highlighting their impaired ability to form and maintain attachments. Working models provide a cognitive schema about what expectations to have with regards to attachment figures and of one's own abilities. Generally speaking, persons with insecure attachments to their attachment figure (either avoidant or anxious-ambivalent) have had experiences in which the attachment figure either unreliably provided care or provided little or no care. Persons with secure attachments have had attachment figures who have reliably provided care (Shaver & Hazan, 1989). However, the models are more complex than stated here. Complications occur with regards to the number of attachment figures during childhood and the kind of care each provided. Cassidy and Berlin (1999) provide evidence though that the attachment style of the child generalizes to new situations with unknown persons. Attributions for the unknown person were characterized based upon the attachment style (and in turn the underlying working model) of the child. Lonely individuals may possess a cognitive

representation that people cannot be trusted or that others will reject them due to their perceived social incompetence based upon their working models.

Indeed there is evidence to suggest that such a representation does exist within lonely persons. A study by Nurmi, Toivonen, Salmela-Aro, & Eronen (1997), found that persons who exhibited a cognitive strategy called pessimistic avoidance (characterized by failure expectations, negative affects, avoidance, and self-handicapping) was related to a loneliness that persisted over a period of one year. This finding has support from other researchers who show that lonely persons have a general pessimistic attitude towards social situations (see for example, Parkhurst & Hopmeyer, 1999; Rook, 1984). This pessimistic attitude in part prevents lonely individuals from forming new attachments with others for fear of rejection perceived as inevitable because of a possible combination between expectations of failure and feelings of social inadequacy.

Attachment theory, personal, intimate relationships and loneliness.

Before beginning to outline relationship between attachment theory and personal, intimate relationships, it is important to definite what is meant by a personal, intimate relationship. Sharabany (1994) defines an intimate friendship as composed of eight dimensions: self-disclosure, sensitivity and knowing, empathy, attachment, exclusiveness of relationship, degree of helping the friend, being able to ask favors/impose on a friend, openness and the ability to be vulnerable, sharing common activities, and lastly, the ability to trust a friend (p. 160). Out of all of these, Prager (1999) suggests that the basis of intimate behaviors is the ability to share the personal, private self.

The type of working model one possesses therefore can influence to what degree an individual is able to establish intimacy. Shaver and Hazan (1989) give examples of working models of each attachment style. Secure individuals, for example, think that people are generally well-intentioned and good-hearted. As a result, Feeney et al. (1999) report that secure individuals have a high level of self-disclosure, and reciprocate during conversations. Shaver and Hazan (1989) also suggest that these individuals are trusting of others and have more satisfying intimate relationships and marriages. Anxious-ambivalent

individuals, think that they are ready for a relationship but feel that others are not as ready as they are. Feeney et al. (1999) report that self-disclosure is also high for this group, but however, reciprocity is low. Shaver and Hazan (1989) suggest that these individuals are "too eager to self-disclose" (p. 119) and quite possible self-disclose inappropriately. Finally, avoidant individuals do not trust others, they think that love rarely lasts. Feeney et al. (1999) reports that self-disclosure for this group is low. Shaver and Hazan (1989) report that avoidant individuals try to avoid close intimate relationships probably out of fear of getting hurt.

On these brief descriptions, it seems that dependent upon the attachment style, various dimensions of intimate relationships are either complete or incomplete. Research suggests that secure individuals have the greatest ability for intimate relationships because they possess the ability to cover the various dimensions of intimate relationships, such as self-disclosure and reciprocity. Anxious-ambivalent individuals can cover some dimensions but not others, such as the ability to self-disclose, but not the ability to reciprocate, and avoidant individuals seem to leave the greatest number of dimensions incomplete. This pattern occurs in part because of the working models of individuals. These given expectations about self and others can reduce the quality of relationships. The result lack of quality intimate relationships can then lead to chronic loneliness (Rook, 1984, Sharabany, 1994, Sullivan, 1953) because relatively stable working models will consistently cause insecure persons to form poor quality relationships and secure persons to form higher quality relationships. Indeed other authors have described results of their research, which suggests for example a significant relationship between self-disclosure and loneliness (Buss, 1999; Matsushima & Shiomi, 2001).

Working models, coping styles and loneliness. Working models may also influence how individuals cope with the emotional load of loneliness. Rokach and Brock (1998) and Rubenstein and Shaver (1982) have done some research into coping strategies adopted by lonely persons and within these two researches, three common types of coping strategies are present in both researches:

avoidance coping, involving withdrawal, denial, and passive activities (sleeping, eating, watching TV); social coping, involving activities meant to increase social contact; and active coping, involving activities that require some greater degree of physical or cognitive concentration, such as exercising, working on a hobby, etc. Synder and Pulvers (2001) suggest that avoidance coping involves not only the denial, withdrawal and passive activities as suggested by Rokach and Brock (1998) and Rubenstein and Shaver (1983) but also ruminative thinking or "paradoxical hyperattention to stressor". Synder and Pulvers (2001) suggest that while individual may strive to ignore their stressor, they paradoxical think about it more.

Attachment theory, and in particular, the working models concept help to explain the coping strategies chosen by individuals. Feeney et al. (1999) states that secure individuals, because they have received responsive caregiving, learn to acknowledge stressors and deal with them, such as through social support. Anxious-ambivalent individuals, who received inconsistent caregiving, tended to focus on their distressing thoughts and feelings as a way of maintaining contact with their attachment figure. This coping strategy can be considered rumination. Finally, avoidant "individuals learn to avoid acknowledging or expressing distress thoughts and feelings so as to minimize conflict with insensitive caregivers" (Feeney et al., 1999, p. 193). It appears that the coping machine as suggested by Synder and Pulvers (2001) may have been shaped by previous attachment experiences of the individual during their childhood. It may also explain the interconnections between attachment style, coping strategy and the degree of loneliness.

Given the connections between attachment style and coping strategies, it is conceivable that insecurely attached individuals would have greater difficulty forming new attachments (or re-establishing old attachments) than securely attached individuals. Given the emotional experience of loneliness, individuals would either deal with their loneliness (securely attached persons) or avoid dealing with their loneliness (insecurely attached persons). The avoidance route would entail the individual undertaking activities that would

prevent them from forming attachments necessary to alleviate their loneliness or separation distress. In this way, the emotional burden of loneliness can become overbearing and hinder one's motivation to effectively engage in social interactions.

Conclusion. According to attachment theory, loneliness is as a result of a deficiency in the necessary attachment figure and is experienced as separation distress. It can become chronic because of maladaptive working models which result in pessimistic attitudes about social situations, personal relationships with low levels of intimacy, and ineffective coping strategies.

General Conclusion.

This section outlined attachment theory and the application of attachment theory to various dimensions of loneliness. Attachment theory provided useful insight by suggesting that loneliness results out of a social need, is experienced as separation distress and can become chronic through maladaptive working models. While there is some evidence to suggest that working models can change over the course of the lifespan (Feeney et al., 1999), it is conceivable that more consistent attachment experiences create working model that are resistant to change. Indeed, individuals with a considerable history of insecure attachments have been found to have persistent loneliness (Hojat & Borenstein, 1990; Rokach, 2000; Shaver & Hazan, 1989; Van Buskirk & Duke, 1991). Getting such individuals to change their current situation may require considerable and prolonged effort. More will be said about this later.

Family Theory and Systems Theory

The term "family theory" consists of two very broad conceptual terms, "family" and "theory." Doherty, Boss, LaRossa, Schumm, and Steinmetz (1993) have defined the process of theorizing as "formulating and organizing ideas to understand a particular phenomenon. A theory is the set of interconnected ideas that emerge from this process" (p. 20). The concept of family is a bit more difficult to define and can include elements of shared genealogy, close proximity, emotional intimacy, and cultural definitions. This section will look at one of the most influential family theories known as systems theory. In

viewing the family as a system, this section will explain how the three dimensions of loneliness can be explained via this family systems theory.

Systems Theory

Systems theory involves the basic idea that objects in the world are interrelated to one another (Whitchurch & Constantine, 1993). The theory was derived from General System Theory (GST), which was in part a response to positivist thinking about applying the principles of natural sciences models to social science. Human beings are qualitative different from the inanimate subject matter of the natural sciences, and therefore theorizing and research about humans may require a different perspective than that taken by natural science and later positivists. Several such differences include the linear cause and effect model of natural sciences, and the lack of self-reflective ability by the subject matter of natural sciences. For a systems theory perspective therefore the interest is in a collection of interacting objects linked together making up a system.

Systems as a unit. Systems theorists argue that the system needs to be looked at as a whole rather than as individual components, which can then be put together. According to Whitchurch and Constantine (1993) GST's Composition Law states that the whole is greater than the sum of its parts, which in application to the family implies that the family as a whole is greater than simply adding individual family member characteristics together. The whole becomes greater than the sum of its parts because the whole includes elements, which cannot be broken down and applied to individual members. These elements are the interactions between different subsystems within the main system. These interactional elements add characteristics to the whole that make it to some degree qualitatively different from each individual member. It is possible then for the system to have characteristics which no one individual element possesses except when they are put together in an interactional context. This systems model breaks down the linear cause and effect model of the natural sciences because how individual elements react within a family is due to a variety of interacting factors rather than a simple linear fashion. Systems theory then is

much less concerned with the cause and effect of various systems as opposed to how different subsystems interact to make up the whole system.

Systems as self-reflective. Human systems are also self-reflective, which means, that unlike mindless machines or unconscious matter humans can look at themselves as though they were outside observers. Whitchurch and Constantine (1993) state that this self-reflectivity allows human systems to establish and work towards goals, construct social realities containing collective definitions upon which to communicate with others.

System boundaries and feedback loops. Systems theory has the useful concepts of system boundary and feedback loops as well. According to Whitchurch and Constantine (1993), a system boundary helps to determine what is considered to be part of the system and what is not part of the system. A related concept is the idea of an open versus a closed system or boundary permeability. The more open the system is, the more matter, energy, or information will be allowed into and out of the system (Whitchurch and Constantine, 1993, p. 333). Another useful concept is the feedback loop. Whitchurch and Constantine (1993) define the feedback loop as a "path along which information can be traced from one point in a system, through one or more other parts of the system or its environment, and back to the point of origin" (p. 334). Feedback loops are of two types: positive and negative. A negative feedback loop has been likened to a homeostatic system, in which the feedback loop provides information that returns the system to some preset level and reduce deviation causes to the system. A positive feedback loop tends to amplify deviations.

Olson's Circumplex Model. Olson (1993) has developed a model of the family based on systems theory. This model describes families in terms of three main dimensions, family cohesion, flexibility and communication. Olson (1993) defines each of the dimensions: "family cohesion is defined as the emotional bonding that family members have toward one another" (Olson, 1993, p. 105), "family flexibility is the amount of change in its leadership, role relationships, and relationship rules" (Olson, 1993, p. 107) and "family communication is measured by focusing on the family as a group with regards to

their listening skills, speaking skills, self-disclosure, clarity, continuity-tracking, and respect and regard" (Olson, 1993, p. 108). Family cohesion has four separate levels, disengaged, separated, connected, and enmeshed.

Similarly, family flexibility has four levels, chaotic, flexible, structured, and rigid. Olson (1993) makes less definitive distinctions in family communication, considering communication to be either good or poor.

The model combines the flexibility and cohesion dimensions to form 16 different family system types. Olson (1993) arranges these family types from balanced family types to unbalanced family types. There are four main balanced types, which revolve around the middle ranges of each of the two dimensions. Therefore the four balanced types are: flexibly separated, flexibly connected, structurally separated and structurally connected. There are four unbalanced extreme types, which revolve around the extremes of the two dimensions: chaotically disengaged, chaotically enmeshed, rigidly disengaged and rigidly enmeshed (See Table 1).

Table 1.

Family Map of balanced and unbalanced family types.

		Cohesion			
		Disengaged	Separated	Connected	Enmeshed
Flexibility	Chaotic	<i>Chaotically Disengaged</i>			<i>Chaotically Enmeshed</i>
	Flexible		Flexibly Separated	Flexibly Connected	
	Structured		Structurally Separated	Structurally Connected	
	Rigid	<i>Rigidly Disengaged</i>			<i>Rigidly Enmeshed</i>

Note. Italicized items represent unbalanced types. Empty cells represent the eight other mid-range family types (not shown).

Within these unbalanced and balanced types are eight other mid-range family types. Olson (1993) perceives that families that are more balanced will have greater functionality and competence than unbalanced families, in particular, through more positive communication skills.

For Olson (1993) each one of these family types do not represent a convenient nomenclature for a particular family, but rather each family type describes the way the family system operates within each type. The family type

is determined not by an individual member but rather as an interactive whole. In assessing family types, Olson (1993) uses a multisystem assessment, which includes looking at different subsystems within the family, such as the marital system, parent-child system, and the family as a whole. Family types then describe not so much the collective additive contributions of each member of the family to the whole, but rather the family system as a whole, something that is greater than the sum of its members. In this way, each family type can very much be thought of as separate *family cultures*, in which underlying group norms, role, behaviors and expectations appear in a relatively consistent fashion. The family system would operate to reinforce the norms and expectations of the family with appropriate sanctions if these norms or expectations are violated.

In this section, two unbalanced family types seem to be the most conducive to adolescent loneliness research, the rigidly enmeshed type and the chaotically disengaged type. Each of these family types will be discussed in turn.

Families that are rigidly enmeshed measure highly on enmeshment for the cohesion dimension and highly on rigid in the flexibility dimension. Rigid families strictly enforce set rules. Leadership is authoritarian and parents are highly controlling. Negotiations are very limited, rules are unchanging and roles are clearly defined (Olson, 1993). Added to this is the idea of enmeshment. In enmeshed families, there is very little separateness, time together is emphasized, private space is de-emphasized, family friends are preferred over individual friends, and personal decisions are subjugated to those of the group (Olson, 1993). In this case, the family system boundary would be clearly defined, occurrences within the family would be seen as private affairs, and outside influences would be limited to those approved by the group. The culture of this family type therefore suggests that these families are not only closely knit together, but also reinforce this enmeshment in an unwavering and disciplined fashion. Even if the adolescent desired to, activities and experiences outside of the family would be severely limited.

In a similar fashion, chaotically disengaged families measure highly on disengagement on the cohesion dimension and high on chaotic in the flexibility

dimension. Olson (1993) describes chaotic families as having little discipline, limited leadership, making impulsive decisions, having little role clarity and frequently changing rules. If we add on disengagement, emotional separateness, low interaction, separate and needed private spaces, and individual friendships occur as well. The boundaries within this system is very open, adolescents are not monitored and are at liberty to perform delinquent acts without fear of reprisal. The family culture here very much suggests that adolescents feel little commitment or closeness to their family and clearly this commitment or closeness is not reinforced or probably even desired. Unlike their counterparts in the rigidly enmeshed families who are highly monitored and closely attached to their families, adolescents in chaotically disengaged families are monitored only very slightly and remain for the most part unattached to their families.

Conclusion. Systems theory is concerned with systems or elements that interact with each other. Systems are units, something that is qualitatively different from each individual interacting element and cannot be explained in simple cause and effects models. Systems usually have boundaries that are either clearly defined or loosely defined, and are either open or closed. Within systems, there may also be interactional elements of feedback loops, which can be either positive or negative. Olson (1993) applies systems theory to the family in his Circumplex Model. The Circumplex Model views families as varying along three main dimensions, cohesion, flexibility and communication to form 16 different family types. Each family type can be considered as a family system embodied by a general family culture in which certain norms and expectations are present. For this section two main family types of interest, the rigidly enmeshed family type and the chaotically disengaged family type.

Systems Theory and Loneliness

The following descriptions below highlight possible questions a family systems theorist may ask with regards to the different dimensions of loneliness.

Type of deprivation. Of interest in this section is the utility of systems theory to explaining social loneliness, which is the type of deprivation experienced by lonely persons as a result of a discrepancy between desired and

achieved patterns of social relations or social network. While the discrepancy is perceived and thus internal, the main question a systems theorist may ask is what characteristics of the family system prevents an adolescent from resolving this discrepancy? In other words, what are the external family system barriers that an adolescent has to overcome in order to resolve this discrepancy? These questions will be looked at further later.

Emotional characteristics. The discrepancy experienced as social loneliness can be considered as the source of the emotional characteristics of loneliness. This emotional characteristic of loneliness provides the necessary motivation to attempt to resolve the discrepancy as suggested by the feedback mechanism described Flanders (1982).

Time perspective. The time perspective dimension allows one to make the distinction between adolescents whose loneliness is transient and easily overcome vs. adolescents whose loneliness is more chronic and difficult to change. Systems theory can be used to answer the question of how families may help or hinder the process of reducing the discrepancy. It may be helpful to begin first with what types of families generally tend to have moderate to chronically lonely adolescents (previously it was suggested that Olson's (1993) rigidly enmeshed and chaotically disengaged family types are most relevant) and then continue into how these family types can create family cultures in which adolescents are unable to resolve the discrepancies they experience between the actual and desired patterns of social relations. It is possible that certain family types create systems, which perpetuate an adolescent's loneliness over time.

The Circumplex Model and loneliness. Based on Olson's Circumplex Model of the family, two of the four unbalanced types of families most clearly seem to be fertile ground for adolescent loneliness. For the chaotically disengaged type, Johnson, LaVoie, and Mahoney (2001) provide evidence that families lacking cohesion (i.e., disengaged) and also as Perlman (1988) described as emotionally cold, show a statistical relationship with adolescents who are lonely. Perlman (1988) also states that undisciplined and irrational families have adolescents

who are lonely. Rotenberg (1999b) also puts forward the idea that parenting style is associated with adolescent loneliness. In particular he cites research, which suggests that parents who are rejecting and not positively involved with their children tend to have lonely children. Olson (1993) describes discipline in chaotic families as *laissez-faire* and ineffective, and also describes that decisions made within the family are impulsive. Therefore the description of families that have adolescents, who are susceptible to loneliness, is similar to what Olson (1993) describes as a chaotically disengaged family.

However, the situation is different for rigidly enmeshed families. Andersson, Mullins, and Johnson (1989) propose that the absence of family cohesion is only one side of the coin. They suggest that a dichotomous model of loneliness in which loneliness can be sustained either through too little or *too much* emotional fusion. Families that are too emotionally fused tend to have a prevalence of *narcissistic intrusion*. This narcissistic intrusion results from a parental love, which is overly protective of the child and inhibits exploration. This in turn limits the ability of a child/adolescent to gain social skills through exploration of the social environment outside of the family. Parkhurst and Hopmeyer (1999) also suggest that overly involved and overprotective parents can have a negative effect on children and adolescents, which can later lead to loneliness by fostering "lack of social self-confidence, independence, and initiative" (p. 78).

Olson (1993) describes enmeshed families as having extreme emotional closeness, and rigid families as having authoritarian leadership, where the parents are highly controlling. Adolescents in rigidly enmeshed families thus may have difficulty forming peer relationships outside of the home and may be particularly susceptible to loneliness there.

Family types and loneliness. Given the relationship between Olson's family types and adolescent loneliness, the question arises as to the ways certain family types help create systems which hinders an adolescent's ability to reduce the cognitive discrepancy associated with his/her loneliness. Systems

theory suggests that a particular family culture may entail patterns of interaction between parents and adolescents that tend to perpetuate adolescents' loneliness.

Collins and Laursen (1999) state that as individuals move through adolescence, relationships change: they are more extensive and diverse, adolescents perceive their relationships with greater complexity, and romantic relationships develop. Parkhurst and Hopmeyer (1999) show that relationships become important for adolescents especially for discussing personal issues, discussing social and philosophical issues, and establishing intimacy. Adolescents need parental assistance in order to adapt to the relationship changes occurring. As individuals move through adolescence therefore, and especially if they experience loneliness, they may make repeated requests for parental assistance in helping them deal with their situation. Parents of the two family types then, may reject requests for assistance or provide assistance that is ineffective in reducing an adolescent's loneliness.

O'Neil and Parke (2000) and Rotenberg (1999b) state that parents can directly help adolescents with developing social skills through parental advice and social guidance. As adolescents learn to negotiate through the social milieu, parental advice and experience may help adolescents learn social skills quicker and establish intimate relationships more easily. In both unbalanced family types discussed previously, rigidly enmeshed families may offer parental advice that is counter to establishing intimate relationships (e.g., "people who are not your family cannot be trusted"), whereas chaotically disengaged families offer little or no advice at all.

The other means that parents can directly help adolescents is as sources of social opportunity (O'Neil & Parke, 2000; Rotenberg, 1999b). In this case, parents provide opportunities for adolescents to have increased social contact. Several examples include parents inviting peers over for a birthday party, encouraging adolescents to go to social events, and for parents to be part of the community and knowing other parents (greater social network). Again rigidly enmeshed families would have parents with a closed boundary and would discourage

outside involvement, whereas chaotically disengaged families would have parents who are unable or unwilling to create social opportunities for their children. Mounts (2000) in her interview with parents, discovered that parents who are unaccepting of their adolescent's peers may prohibit peer relationships. This can particularly be the case in romantic relationships, where family values and traditions may frown upon adolescent romantic relationships. Andersson et al. (1989) highlights that parents of families similar to the rigidly enmeshed type may use the threats of love withdrawal, abandonment, and eliciting feelings of guilt as controlling mechanisms to get children and adolescents to obey them. Adolescents in the rigidly enmeshed family type may feel especially lonely because of the parents' prohibitions about which peer relationships are acceptable.

The family culture therefore creates a system in which adolescents make requests for help and support in resolving their loneliness, and in parents providing inadequate support. As Andersson et al. (1989) says, "parents may be inadequate in opposite directions. They may neglect their offspring or they may be overprotective" (p. 129). Hojat (1982), for example, in his study found that adolescents whose parents were not a secure source of advice and thought that their parents did not understand them or devote enough time to them had significantly higher scores on loneliness than others whose parental relationships were more positive. The family system therefore is unable to assist the adolescent in resolving his/her loneliness.

Conclusion. Systems theory is useful in explaining how the family system can sustain an environment in which an adolescent's social network is reduced to a level below his/her desired level (social loneliness). Two family types were proposed as systems, which are closely associated with previous research on families and loneliness: chaotically disengaged and rigidly enmeshed. Rigidly enmeshed families restrict an adolescent from expanding their social network outside of the family setting by family members. Two family types can provide fertile ground for adolescent loneliness, in particular by withholding necessary

socialization experiences to gain needed social skills, or by providing little parental guidance and support.

General Conclusion

This section looked at various concepts within systems theory and in particular, Olson's (1993) Circumplex Model. Systems theory can be useful in explaining chronic social loneliness by proposing that certain family types prevent adolescents from resolving this discrepancy. The explanations by systems theory clearly indicate the need for intervention researchers to focus not only on individual characteristics that may promote loneliness, but also look at the individual's context and how this context may provide obstacles to resolving a person's loneliness.

Applied Interventions and Programs for the Lonely

An intervention program entails various approaches that seek to assist individuals or families in overcoming their problem especially when they are unable to do so themselves. This section will summarize various causes of loneliness as has been put forward in previous sections, and then with the use of previous literature suggest activities that may appropriately deal with the causes of loneliness.

Two Causes of Loneliness

This paper looked at loneliness from two perspectives, attachment theory and systems theory, and suggested different ways in which the three main dimensions of loneliness (type of deprivation, emotional characteristics, and time perspective) could be explained by each perspective. One important distinction made between these perspectives is the idea that the causal problem of loneliness could be inside the person (attachment theory) or outside the person (systems theory). Attachment theory has demonstrated that lonely individuals may develop working models that promote causes of loneliness including, failure expectations, poor coping strategies, insecure attachments, and relationships lacking intimacy. Systems theory has also suggested that lonely adolescents may exist in a family context, which inhibits the ability to reduce of their cognitive discrepancy.

It is possible therefore for an individual to vary independently on internal causal factors and on external causal factors. An adolescent, for example, may have developed insecure attachments and currently exists in a chaotically disengaged family vs. an adolescent who has secure attachments but currently exists in a chaotically disengaged family (such as in a divorced family). Adolescents who have both internal and external causal loneliness factors conceivably are at a greater disadvantage than adolescents who have either just an internal or external causal loneliness factor or none at all. Table 2 below outlines the relationship between loneliness, internal/external causal loneliness factors, and variations from best to worst case scenario. Table 2.

Case scenarios between loneliness, attachment theory, and systems theory.

External Causal Loneliness (Systems Theory)	Internal Causal Loneliness (Attachment Theory)	
	No	Yes
No	Best Case	Moderate Case
Yes	Moderate Case	Worst Case

If family environments have been consistent from childhood through to adolescence, it is conceivable that there is a strong relationship between internal and external causes of loneliness. Attachment theory suggests that loneliness is caused because of the poor working models (and resultant attachment styles) developed through interactions with attachment figures. Interestingly these attachment styles suggest that parents are unresponsive, or inconsistently responsive to the needs of children, which is similar to the chaotically disengagement family type discussed under the systems theory section. It is highly probable therefore that adolescents in chaotically disengaged families may experience loneliness, not only because of the external family context but also because this family context at an early period was fertile ground for internal, developmental causes of loneliness as well.

Intervention programs therefore have to adopt a multitude of different approaches in order to assist various lonely individuals. Rook (1984) for

example, suggested that loneliness intervention programs need to have individual approaches to deal with internal causal factors and also group and environmental approaches. Loneliness intervention programs that are assisting adolescents in the worst case scenario will have a more difficult time alleviating their loneliness than adolescents in moderate or best case scenarios.

Rook (1984) states that loneliness intervention programs can have three broad goals, to establish satisfying interpersonal ties, to prevent loneliness from evolving into or contribution to more serious problems, and to prevent loneliness from occurring in risk populations (p. 1391). Each one of these goals may apply to different loneliness case scenarios. In worst case scenarios it may not be possible for intervention programs to alleviate a person's loneliness not only because of internal factors, but also that external factors such as the family may work against attempts by intervention programs to reduce this loneliness. Hansen, Nangle, and Meyer (1998) for example, mention that without parental support, social skills interventions may have a difficult time successfully implementing their program. In such cases, the goal of preventing loneliness from evolving into more serious problems may be an appropriate goal. In more moderate case scenarios, trying to establish satisfying interpersonal ties may be more feasible since the accumulative problem of internal and external causes does not occur. Lastly, in the best case scenario, the final goal of prevention in risk populations can be applied, especially when such individuals experience a sudden loss through death, divorce or separation.

The loneliness problem therefore is multidimensional. Previous sections have shown that each of the various perspectives vary in different dimensions of loneliness. Basically the causes can be seen as internal, external or both, and needs a variety of intervention activities to deal with these different causes. These causes and possible kinds of intervention activities will be looked at below.

Attachment, Loneliness and Intervention

Cognitive therapy. As was discussed in the section on attachment theory, lonely persons may have developed a working model in which they have

expectations that they will be rejected in new social situations. Previously mentioned research by Nurmi et al (1997) for example, has shown that lonely individuals tend to possess a pessimistic avoidance cognitive strategy. One type of activity that can be utilized in loneliness intervention programs is cognitive therapy (Evans & Dingus, 1989; Murphy & Kupshik, 1992; Rook, 1984; Rook & Peplau, 1982; Young, 1982). Rook and Peplau (1982) highlight that part of the cognitive therapy is helping clients recognize automatic thoughts about being rejected in social situations or about their own competencies. Cognitive therapy seeks to highlight these cognitions and help clients realize that they are irrational in nature. It would allow one therefore to question one's working model, to be critical of thoughts about self-competence or future events. According to Rook (1984) it helps modify dysfunctional beliefs by recognizing and correcting self-defeating thought patterns.

Rook (1984) also highlights another intervention activity, modifying interpersonal orientations. Within this activity, especially within client-therapist relationships, the therapist establishes a relationship of trust with the client that affords for self-disclosure. Therefore they learn to change their cognitions and behavior based upon an actual relationship evolved during the therapy process between the client and the therapist. This very much resembles the therapist adapting the role of an attachment figure, and therefore restructuring the latent working model present within the lonely person. The person can through this restructuring of the working model, adapt different expectations about unknown people which could afford for better attempts at constructing personal relationships.

Teaching adaptive coping strategies. As was discussed in the attachment section, lonely individuals sometimes adopt coping strategies that tend to perpetuate their loneliness. This can lead to further complications, such as severe depression and suicide (Rook, 1984). Another intervention activity that can be used therefore, involves teaching lonely individuals how to cope with loneliness. Intervention programs can teach lonely individuals how to effectively cope with their loneliness, which may include coping in

ways that may increase the possibility of social contact. This is related to ideas put forward by Ponzetti (1990) who argues that part of intervention strategies is to teach individuals that their loneliness is controllable. Indeed loneliness has also been related to feelings of hopelessness (Jones, 1982; Ruchkin, Eisemann, & Hägglöf, 1999) and learnt helplessness (Ponzetti, 1990) thereby leaving individuals at the mercy of their feelings of loneliness. Ponzetti (1990) argues that individuals should take charge of their loneliness and in particular adopt more effective coping strategies.

Systems theory, Loneliness, and Intervention

Family intervention. Olson's (1993) Circumplex model describes two family types that possess characteristics, which may be fertile ground for adolescent loneliness. These were the chaotically disengaged and the rigidly enmeshed family types. Both of these family systems measure on the extreme ends of the two main dimensions of cohesion and flexibility of the Circumplex model and Olson (1993) refers to these as extreme family system types. In order to reduce adolescent loneliness therefore, it may be necessary to adjust the way the family functions, and try to move the family system away from the extremes on each dimension, towards more mid-ranged or balanced family system types. This change while difficult for these family types is not altogether impossible (Olson, 1993).

Along these lines, Perlman (1988) suggests that parents need to have more positive involvement with their children. Parents "need to be affectionate, trustworthy, and sounding boards with whom their children can talk over problems" (p. 211). In this way parents can begin to fill the gap within adolescents who do not have adequate social skills to resolve their discrepancy in the levels of social relations.

Social opportunities. Family intervention can also help parents to reduce their adolescents' loneliness by being sources for social opportunities (Perlman, 1988). Perlman (1988) for example, suggests that parents can not only attempt to provide greater social opportunities for

adolescents through such activities as hosting parties and sleep-overs, but also try to be more accepting of adolescents' choice of friends.

Interventions can also take on this role by providing for lonely individuals sources for social opportunities. Rook (1984) argues that communities and other groups can provide opportunities for lonely persons, and also that intervention programs can make lonely persons aware that such opportunities exist within the community. Therefore lonely individuals may get the opportunity to meet new people and establish meaningful relationships.

General Conclusion.

An intervention approach to loneliness needs to be multifaceted (Rook & Peplau, 1982). Lonely individuals can have a combination of internal causes, external causes. Various goals of loneliness intervention programs as put forward by Rook (1984) may be useful to lonely individuals in these different scenarios. Approaches from attachment theory suggest adjusting working models and expectations of failure, and also teaching more effective coping strategies. Systems theory suggests family intervention, geared at changing the family system, and teaching parents to provide social opportunities for their children, can help in reducing loneliness. When combined, these activities can make for an effective loneliness intervention program.

To conclude in the words of Peplau and Perlman (1982): "Few of us have escaped the painful experience of loneliness. In the natural course of growing up our social relationships begin, change, and end. In infancy we first experience the distressing anxiety of being separated, often only temporarily, from loving caretakers. As children, we venture into a wider world of social relations where we try, not always successfully, to gain acceptance and friendships from peers...For teenagers, the exhilarating prospect of first love may in reality include experiences of love spurned or gone sour. As adults, our web of social relationships continues to shift...Social transitions are a basic fact of life in modern society, and so is loneliness. For most of us, intense feelings of loneliness are short-

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lived; for others, loneliness is a persistent aspect of daily life" (p. 1).
The causes of loneliness are as complex as its cures.

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