

FEELINGS OF SUBJECTIVE EMOTIONAL LONELINESS: AN EXPLORATION OF ATTACHMENT

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This study examines the relationships between parental attachment, peer attachment, and subjective feelings of emotional loneliness. Three alternative models were tested in a group of 440 graduating psychology students at Ghent University in Belgium. The first hypothesis explored the linear causal relationship between parental attachment, peer attachment, and feelings of emotional loneliness. The second hypothesis tested the direct relationship between parental attachment and feelings of emotional loneliness, and the third hypothesis examined the reciprocity between feelings of emotional loneliness and peer attachment. Using Structural Equation Modeling, results showed that peer attachment mediates strongly between parental attachment and feelings of emotional loneliness. The direct contribution of parental attachment to feelings of emotional loneliness was rather weak. Finally, feelings of emotional loneliness did not contribute significantly to the explanation of peer-attachment style.

Keywords: subjective emotional loneliness, parental attachment, parental bonding, Structural Equation Modeling

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In literature distinctions have been made between *loneliness*, *aleness*, and *solitude*, whereby aleness and solitude have been described as *developmentally important experiences in the process of developing a secure self-identity* (Buchholz & Catton, 1999; Rokach, 2004). Loneliness, on the other hand, refers to *a negative psychological experience that conceptually has always been related to interpersonal experiences and interpersonal trust during middle childhood* (Rotenberg, MacDonald, & King, 2004). In line with Peplau and Perlman (1982), Larose, Guay, and Boivin (2002, p. 684), for example, define loneliness as *a subjective distressing and unpleasant state in which individuals perceive deficiencies in their social world*. Loneliness refers to experiences of isolation and to feelings of deprivation in relation to others, which coincide with either qualitative or quantitative deficiencies in one's interpersonal network (Weiss, 1973; Perlman & Peplau, 1981).

Little research focuses on the distinction between emotional and social loneliness, despite the fact that social loneliness specifically indicates a lack of companionship and is related to the number of close friends. Emotional loneliness, in its turn, indicates a lack of intimacy with close friends and has nothing to do with the number of friendships (Clinton & Anderson, 1999; Qualter & Munn, 2002; Rokach, 2004; van Tilburg, Havens, & Gierveld, 2004). Qualter and Munn found that individuals can be socially isolated without feeling lonely, while other individuals feel lonely without being socially isolated. It is evident that objective and subjective feelings of isolation are not as clearly related. The quantitative and qualitative aspects of social relationships are distinct (Badoux-Levy, Robin, Lavarde, & Grygielski, 2004; Hughes, Waite, Hawkey, & Cacioppo, 2004). In other words, the lack of specificity in the concept of loneliness has been discussed, and more research is needed to distinguish the different aspects of loneliness throughout the process of aging (Hughes et al., 2004; Russell, 1996). In this paper, we focus specifically on perceived subjective emotional loneliness. Developing a close relationship implies self-disclosure as a first step in establishing a confidant relationship, which is scary because of the potential rejection factor. Generally it has been agreed upon that the subjective situation of loneliness entails negative consequences at the level of both physical and mental health (DiTomasso & Spinner, 1997; Ernst & Cacioppo, 1999).

In his approach to the topic, Weiss (1973, 1989) suggested a clear link between loneliness and attachment. He described loneliness as separation distress without an object, and thus as a true lack at the level of close attachment relations with significant others. In this context, he also differentiated between emotional loneliness and social loneliness. *Social loneliness* refers to *a lack of integration in social networks that could provide a sense of connection with others*, and *emotional loneliness* to *the affective state of feeling isolated*. In this paper we simultaneously take into account attachment in relation to parents and attachment

in relation to peers. After all, both types of attachment can be thought of as closely related (Deniz, Hamarta, & Ari, 2005).

Attachment theory starts from the premise that in childhood, parents or primary caregivers are the most important figures with whom a child bonds (Bowlby, 1969). Attachment and caregiving are central, interrelated components of love relationships (Feeny & Noller, 1996). During adolescence parents become relinquished as primary attachment figures. Through experimentation and learning, adolescents and young adults search for a partner with whom to engage in a close relationship. This development process is quite similar to the period of early childhood: on the one hand, the absence of an attachment figure creates separation distress and feelings of pain, and on the other hand, separation distress entails the development of a motivation to return to the optimum level (Ainsworth, Blehar, Waters, & Wall, 1978; Fonagy, Gergely, Jurist, & Target, 2002; Shaver & Hazan, 1989). Attachment theory claims that early attachment experiences result in the creation of working models. These are basic mental representations of self and others that determine the way in which a person effectively interacts and binds with others. Working models provide a schema about what expectations one should have with regard to attachment figures and one's own abilities (Bartholomew, 1990). The type of working model an individual possesses therefore influences the degree to which he or she is able to establish intimacy and emotional closeness, and thus also the degree to which he or she experiences loneliness. Hazan and Shaver (1987) proposed a popular typology of working models and attachment styles, in which they differentiate between *secure attachment*, *anxious-avoidant attachment*, and *avoidant attachment*. Bartholomew and Horowitz (1991) argued for a 4-type conceptual scheme that included the Hazan/Shaver styles and added a second kind of avoidance attachment style (*dismissing-avoidant*). Underlying the four types or styles are two dimensions: Model of Self and Model of Other (or Partner). Secure 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. Shaver and Hazan (1989, p. 119) suggest that these individuals are "too eager to self-disclose" and quite possibly self-disclose inappropriately. Finally, avoidant individuals try to avoid close intimate relationships, probably out of fear of getting hurt (Shaver & Hazan, 1989). The expectations about self and others affect the quality of relationships, and can be thought of as causal in relation to loneliness (Buss, 1999; Matsushima & Shiomi, 2001; Rook, 1984, Sharabany, 1994). Based on these insights, we argue that people who suffer from persistent feelings of loneliness can be characterized by typical working models that entail an impaired ability to form and maintain attachment relations with others. Since working models are not unified and should be thought of as multiple, for adults

we can differentiate between working models based on the historically rooted relationship with one's parents, and those based on current relationships with peers.

Concerning working models based on parents, previous studies indicate that experiences of loneliness cohere with insecure (representations of) attachment (Ernst & Cacioppo, 1999; Goossens, Marcoen, Van Hees, & Van de Woestijne, 1998; Larose et al., 2002). In terms of specific insecure attachment styles, dismissing attachment coheres most strongly with loneliness (Kobak & Sceery, 1988). In line with what Bowlby (1969) suggested, research by McCloskey and Stuewig (2001) indicates that working models with respect to parents are direct reflections of the actual attachment history with the mother and the father. Research on working models of adult attachment to peers also indicates that insecure attachment patterns cohere strongly with loneliness (DiTommaso, Brannan-McNulty, Ross, & Burgess, 2003; Lambert, Lussier, & Sabourin, 1995; Leondari & Kiosseoglou, 2000; Man & Hamid, 1998). Man and Hamid, for example, found that fearfully attached individuals in particular feel lonely, followed by preoccupied and dismissingly attached persons. Other studies with respect to loneliness (e.g., Lambert et al.) did not find significant differences between different types of insecure attachments.

Those authors that simultaneously took into account working models on parents as well as working models on peers did not end up with univocal results. Some studies conclude that the effect of working models on parents disappears by taking into account attachment to peers (Chipuer, 2001; Moller, McCarthy, & Fouladi, 2002). Others, on the contrary, conclude that the effect of peer attachment disappears if one takes into account parental attachment (Kerns & Stevens, 1996).

Moreover, it remained rather unclear how the causal relation between the feeling of emotional loneliness, on the one hand, and working models of parental attachment and working models of peer attachment, on the other hand, can best be thought of. According to authors working from a psychoanalytic approach (Buchholz & Catton, 1999; Fromm-Reichmann, 1959; Sullivan, 1953; Verhaeghe, 1999; Zilboorg, 1938), feelings of emotional loneliness can be traced back to early experiences in relation to parental figures, and consequently to the working model of parental attachment. Within this view, current attachment relations are not causal in relation to loneliness, but can, rather, be thought of as a domain in which loneliness is manifested. Other authors, who more explicitly work from an attachment perspective (Buchholz & Catton, 1999; Chipuer, 2001; Weiss, 1973), argue that working models on current attachment relations with peers can indeed be thought of as causal in relation to loneliness.

Subjective feelings of emotional loneliness are central in this study. First we examined how both working models of parental attachment and attachment with

peers relate to subjective feelings of emotional loneliness. More specifically, we explored the causal relation between the variables at hand. Three hypothetical models were tested (see Figure 1, 2, and 3). The first model examines linear causality and posits that the working model of parental attachment is the primal causal variable. It situates the working model of attachment with peers as intermediate and posits emotional loneliness as a direct effect of this working model. The two other models are network models. Just like the first model, the second model (causal relation 2) considers the working model on attachment with peers as the intermediate variable between the working model on parental attachment, and emotional loneliness. It also adds a direct link between parental attachment and emotional loneliness. The third model is more directly connected to the psychoanalytic perspective. The working model on attachment with parents is seen as the primal causal variable for both the working model on attachment with peers, and for loneliness. Attachment with peers and emotional loneliness are thought of as simultaneous effects of the primal causal variable, and both variables are correlated.

Secondly we examined how experiences of attachment relations have a discriminative value in relation to experiences of emotional loneliness in a group of respondents who never felt lonely and a group who felt lonely most of the time.

METHOD

PARTICIPANTS

A population of graduating psychology students at Ghent University (Belgium) was studied. Four hundred and forty students (346 females; 94 males) volunteered to participate by completing questionnaires at the end of the regular class period. The mean age of the students was 22 years and 2 months ($SD=3.30$). Two hundred and eighty-five students were currently engaged in a relationship and 155 students were single. The duration of the relationship was longer than 2 years for close to 50% and more than 6 months and less than 2 years for 35%. Only 28 students had not had a relationship in the past.

INSTRUMENTS

In making operational the working model of recalled attachment relations with parents, we made use of the Parental Bonding Instrument (PBI; Parker, Tuplin, & Brown, 1979). The PBI measures the parental contribution to bonding, or a person's recollections of parental behavior and attitudes. This instrument consists of 25 items and must be filled out separately for the mother and the father. The items of the Flemish version¹ (Verschuere & Marcoen, 1993) are scored on a

¹ Verschuere and Marcoen translated the Adult Attachment Scale and The Parental Bonding Instrument in Dutch, 1993.

4-point scale, ranging from (1) *My mother/father was not at all like that...* to (4) *My mother/father was like that....* Two dimensions are measured: “care” and “overprotection”. The care scale measures how much warmth the respondents experienced in the relationship with their father and mother during childhood and adolescence. The overprotection scale measures how much autonomy the respondents experienced in the relationship with their mother and father during childhood and adolescence (Verschuere & Marcoen). Alpha coefficients for the Dutch PBI scales ranged from .87 to .94.

The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) was used to measure the operational working model of current adult attachment to peers. The instrument is a single-item measure made up of four short paragraphs, each describing a prototypical attachment pattern as it applies in close adult peer relationships. Participants are asked to rate their degree of correspondence to each prototype on a 7-point scale on which the level of secure, fearful, preoccupied, and dismissing attachment can be marked. As shown by Brennan, Shaver, and Tobey (1991), Styles A, B, and C correspond respectively to Hazan and Shaver’s (1987) Secure, Avoidant, and Anxious/Ambivalent styles. Bartholomew’s measure adds the Adult Attachment Interview’s (AAI) dismissing-avoidant category (style D) and places the four categories into a two-dimensional model, something that neither AAI researchers nor Hazan and Shaver did initially. The RQ can either be worded in terms of general orientations to close relationships, orientations to romantic relationships, or orientations to a specific relationship (or some combination of the above).

In line with Krauss (1993), in the context of this study we preferred to measure feelings of emotional loneliness by means of a single item: the question: “Do you ever feel lonely?”, which was scored on a 4-point scale ranging from (0) *Never*, (1) *sometimes*, (2) *often* to (3) *very often*. This single item was used as we were specifically interested in subjects’ attitudes towards the idea of *feeling* lonely. The UCLA Loneliness Scale was not used, as it primarily assesses subjective feelings of social isolation (Russell, 1996).

DATA ANALYSIS

In this study we first examined three hypothetical causal models that contain both manifest (measured) and latent variables. These models were examined using the LISREL Structural Equation Modeling program (Jöreskog & Sörbom, 1986, 1993). In our use of LISREL we started from maximum likelihood estimation. The latent variables are connected to each other through paths (for the three causal models: see Figures 1, 2, and 3).

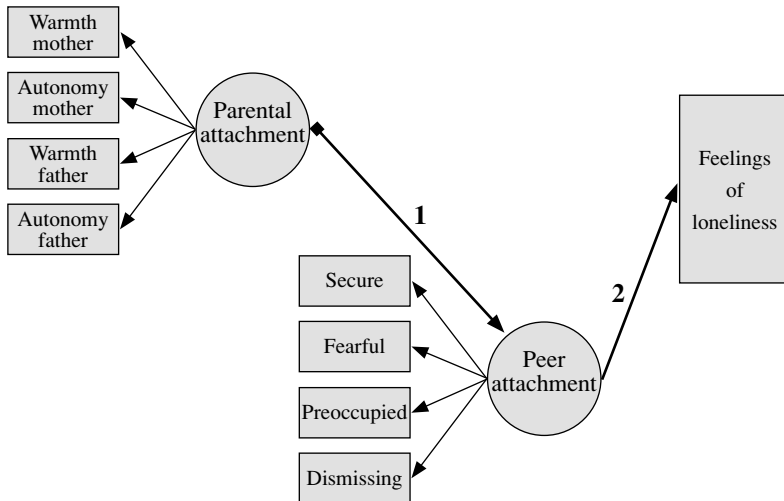


Figure 1: The construction of the first hypothetical model: Peer attachment in the explanation of feelings of loneliness.

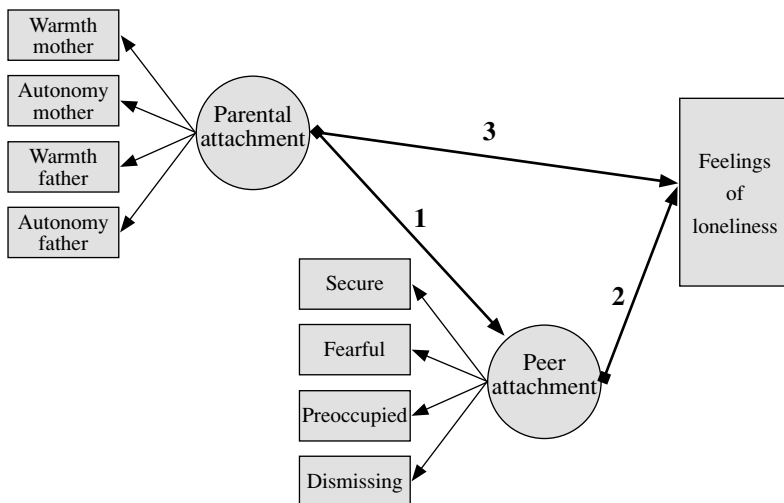


Figure 2: The construction of the second hypothetical model: Parental attachment and peer attachment in the explanation of feelings of loneliness.

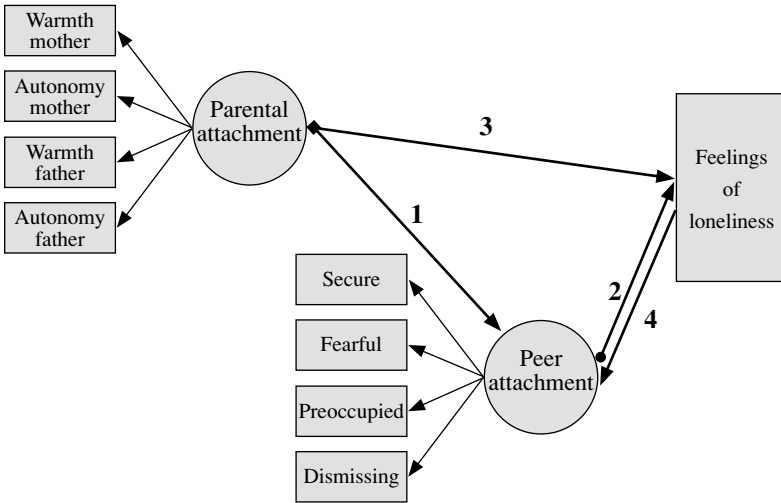


Figure 3: The construction of the third hypothetical model: Parental attachment and peer attachment in the explanation of feelings of loneliness and the effect of peer attachment on feelings of loneliness.

The first causal model that has been tested (see Figure 1) contains two paths: a causal path from parental attachment to attachment with peers and a path from peer attachment to the dependent variable feelings of loneliness (no feelings of loneliness). The second model (see Figure 2) examined the same two initial paths, but included an additional path (Path 3) from parental attachment to feelings of loneliness. The third causal model we tested (see Figure 3), examined the same three paths as in the second model, but hypothesized that the relationship between peer attachment and feelings of loneliness was correlational in nature, and not causal (Path 4).

LISREL offers different fit indices to examine the fit between the hypothetical model and the observed model. The most frequently used indices for indicating the quality of a model are the Standardised Root Mean Square Residuals (SRMR), the Root Mean Square Error of Approximation (RMSEA), and the Comparative Fit Index (CFI). Concerning the SRMR and RMSEA, Hu and Bentler (1999) use a cut-off value lower than 0.08 for the SRMR and 0.06 for the RMSEA. For the CFI, Hu and Bentler (1999) use a cut-off value close to 0.95. In this study we will use these cut-off values; for more detailed information about fit indices, see Bentler (1990), Hu and Bentler (1999), and Shelvin and Miles (1997).

Reliability of the variables in the 3 models (Warmth by the Mother, Warmth by the Father, Autonomy by the Mother, Autonomy by the Father, secure, fearful, preoccupied, and dismissing peer attachment) was examined by means

of internal consistency analysis of the subscales. The dimension parental attachment was constructed with the variables Warmth by the Mother, Warmth by the Father, Autonomy by the Mother, and Autonomy by the Father. The internal consistency of the 4 variables was .82. Factor loadings ranged from .67 (Warmth by the Father) to .89 (Warmth by the Mother). The dimension peer attachment was constructed with the variables secure, fearful, preoccupied, and dismissing adult attachment. The alpha coefficient of the 4 variables was .94. Factor loadings ranged from .93 (insecure) to .98 (fearful).

RESULTS

Firstly, we estimated the causal models depicted in Figures 1, 2, and 3 using Structural Equation Modeling. Figures 4, 5, and 6 display the estimated paths between the latent variables and the dependent variable. In Figure 4 (model 1), a significant positive association ($r=0.31$, $t=4.59$) was found between parental attachment and peer attachment (Path 1), and peer attachment was significantly negatively related to feelings of loneliness (or not; $r^1=-0.08$, $t=-2.69$) (Path 2), accounting for 12% of the variation in the dependent variable. The fit between the hypothetical and observed model was very good, as indicated by an SRMR of 0.040, an RMSEA of 0.032, and an CFI of 0.98.

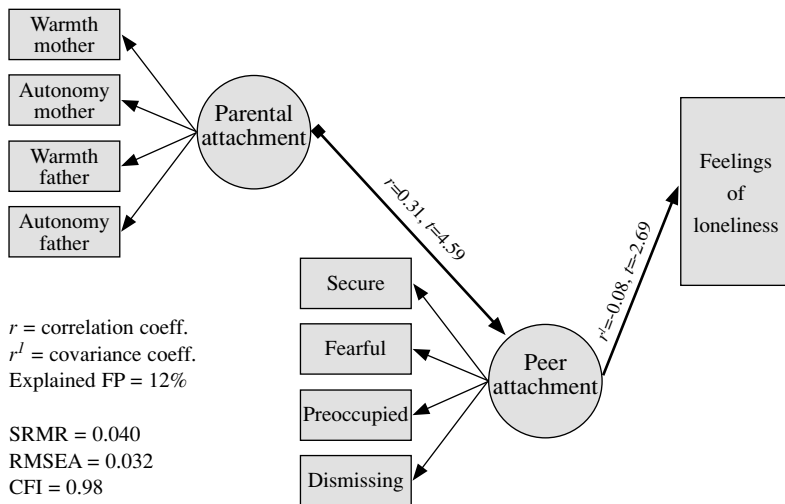


Figure 4: Peer attachment in the explanation of feelings of loneliness.

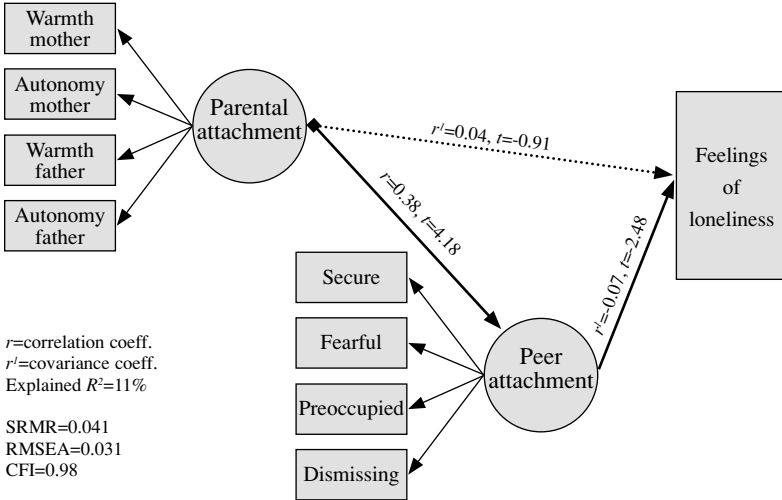


Figure 5: Parental attachment and Peer attachment in the explanation of feelings of loneliness.

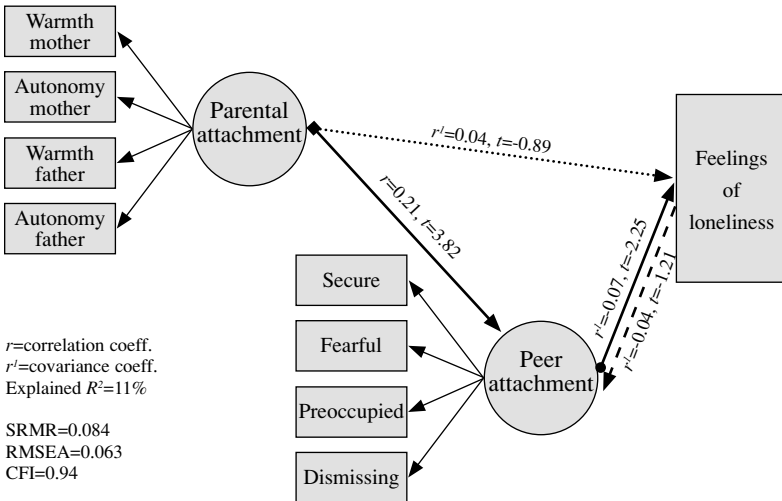


Figure 6: Parental attachment and Peer attachment in the explanation of feelings of loneliness and the effect of feelings of loneliness on peer attachment.

The second model (Figure 5) additionally examined the direct relationship between parental attachment and feelings of loneliness. The path between parental attachment and peer attachment was positive and significant ($r=0.38$, $t=4.18$) (Path 1). Peer attachment was negatively and significantly associated with the feelings of loneliness variable ($r^1=-0.07$, $t=-2.48$) (Path 2), accounting for 11% of the variation in the dependent variable. The relationship between peer attachment and the dependent variable was very weak and certainly not significant ($r^1=-0.04$, $t=-0.89$) (Path 3). For model 2, the fit between the hypothetical and observed model was also very good, as indicated by an SRMR of 0.041, an RMSEA of 0.031, and a CFI of 0.98.

The third model (Figure 6) examined the effect of peer attachment on feelings of loneliness and reciprocity between peer attachment and feelings of loneliness. The path between parental attachment and peer attachment was positive and significant ($r=0.21$, $t=3.82$) (Path 1), the path between parental attachment and feelings of loneliness was not significant ($r^1=-0.04$, $t=-0.89$) (Path 3), and peer attachment correlated significantly with the feelings of loneliness variable ($r^1=-0.07$, $t=-2.25$) (Path 2) accounting for 11% of the variation in the dependent variable. The hypothesized reciprocity between peer attachment and feelings of loneliness was not significant ($r^1=-0.04$, $t=-1.21$) (Path 4). The fit between the hypothetical and observed model was not good, as indicated by an SRMR of 0.084, an RMSEA of 0.063, and an CFI of 0.94.

TABLE 1
PARENTAL ATTACHMENT AND PEER ATTACHMENT: DIFFERENCES BETWEEN TWO GROUPS (NEVER LONELY AND (VERY) OFTEN LONELY: MEANS AND STANDARD DEVIATION

Background variables	Never lonely ($n=53$)		(Very) often lonely ($n=51$)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parental attachment				
Care mother	31.01	2.22	31.38	2.68
Autonomy mother	34.11	4.34	33.40	4.51
Care father	29.67	2.99	29.93	2.68
Autonomy father	35.13	3.44	34.70	4.08
Peer attachment				
Secure AAS	5.15	1.37	3.25	1.67*
Fearful AAS	2.50	1.35	4.66	1.79*
Preoccupied AAS	2.38	1.22	3.92	1.63*
Dismissed AAS	2.92	1.63	2.41	1.28

* $p<.001$

Secondly, a paired sample *t*-test procedure was used to compare whether parental attachment and peer attachment differ between individuals who never or most of the time felt lonely. As seen in Table 1, results for the respondents who felt lonely most of the time were significantly different on 3 of the 4 peer attachment variables examined in this model. They reported less secure, more fearful, and more preoccupied attachment styles than did respondents who never felt lonely. Notice that parental attachment did not significantly differ between both groups.

DISCUSSION

This study supports previous findings and suggests the possibility of using attachment theory as a generic frame for examining feelings of emotional loneliness in young adults. There is a general human need to establish close, enduring emotional bonds with others to feel secure and explore the world with confidence (Ainsworth et al., 1978; Bowlby, 1973). Before discussing the results of this study, two issues have to be emphasized. Firstly, young adults are particularly vulnerable to feelings of emotional loneliness, due to the developmental changes in the attachment organization and to the consequent transformation of parent-child relationships. It remains rather unclear whether attachment style is a relatively stable trait of the young person, or is more a feature of the current intimate relationship (Feeney & Noller, 1996; Vetere & Myers, 2002). Secondly, in the setting of a study such as ours feelings of emotional loneliness are temporary and express subjects' appreciation at the time. It does not indicate chronic feelings of loneliness, which are strongly related to a large variety of psychological disorders, such as anxiety, depression, and alcohol and drug abuse (Orzeck & Rokach, 2004; Perlman & Landor, 1999). We intentionally measured emotional loneliness just by using the question "Do you ever feel lonely?" We were especially interested in general feelings of emotional loneliness. We did not use the UCLA Loneliness Scale (e.g. Richardson, 2004; Russell, 1996) because our study did not measure how often respondents experience a range of feelings concerning social isolation. In general, people who suffer from feelings of emotional loneliness can be characterized by insecure adult attachment styles and the inability to form and maintain close relations to others. In line with Weiss (1989), social loneliness provides a sense of disconnection with others caused by inadequate adult relational attitudes. In this study, three hypothetical models were tested. The first hypothesis has been confirmed. We found a linear causal relationship between parental attachment as primary causal variable and feelings of loneliness, with peer attachment as intermediate variable. The positive relationship between parental attachment and adult attachment confirms the theory that the quality of

a child's attachment relationship is rooted in the degree and quality of parental responsiveness. It confirms the hypothesis that child-parent relationships continue to be important throughout life (Bowlby, 1973). The second hypothesis could not be confirmed. We found no direct and linear relationship between parental attachment in childhood and feelings of loneliness in young adulthood. The relationship went indirect over peer attachment as intermediate variable. On a bivariate level, no difference was found between lonely and nonlonely respondents concerning parental attachment. This finding does not correspond with previous research indicating that a positive relationship with the parents during the first years of life implies fewer feelings of loneliness later in life (Kerns & Stevens, 1996). Our findings are consistent with previous research that demonstrates the relationship between insecure attachment and feelings of loneliness (Buss, 1999; DiTommaso et al., 2003; Matsushima & Shiomi, 2001). On a bivariate level, the secure, fearful, and preoccupied adult attachment styles differentiate between lonely and nonlonely respondents. It underlines the results of Man and Hamid (1998), who found that fearful and preoccupied attached individuals feel more lonely than do dismissingly attached persons. We must take into consideration the fact that individuals can devalue or exaggerate the importance of child-parent relationships without actual memories of empathic or loving episodes and downplay the influence of childhood experiences (Vetere & Myers, 2002). We must also consider the influence of coping mechanisms when considering the fact that recalled parental bonding did not differentiate between young adults who never felt lonely and those who (very) often felt lonely. In our third hypothesis, attachment with peers and loneliness were thought of as simultaneous effects of the primary causal variable that mutually correlate. Feelings of loneliness were rather weak and did not help explain the quality of peer attachment styles.

The analysis, however, left almost 90% of the variance unexplained. Clearly, other factors that were not included in the analysis play a significant role in the etiology of subjective feelings of loneliness. More research is needed concerning the mediate position of coping style between parental attachment and relationships in adulthood.

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