



rijksuniversiteit
groningen

The Role of Romantic Attachment in Grief Responses and Coping Strategies Following Romantic Breakups

Christianne Evasco

Master Thesis - Applied Social Psychology

S4849930

August 2023

Department of Psychology

University of Groningen

Examiner/Daily supervisor: Kai Epstude

.....

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate, but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Acknowledgements

The completion of my thesis project would not have been possible without the expertise of my supervisor, Dr. Kai Epstude. I convey my gratitude to his openness to my research idea and patience with my progress. In addition, I want to extend my thanks to my second evaluator, Sabine Otten. Thank you both for taking the time to read my paper and for contributing to my future in academia and psychology at large.

I would also like to give thanks to Christine Barnett, with whom I shared both the dataset and a friendship. Thank you for being a steady source of support both academically and personally. I am also sincerely grateful to my internship supervisor, Anouk van Duinkerken. The reach of your consistent guidance and human kindness has extended well past my internship experience, and for that, you have my immense gratitude and respect.

Moreover, I'm grateful to my family for believing in my ability to succeed in my endeavors. Thank you all for your words of encouragement and confidence in me. I'm proud to add something that is uniquely me to our family heritage. Mahal ko kayong lahat.

I'm especially grateful to my mother for all her hard work to allow me the opportunity to pursue higher education overseas and to (re)discover parts of myself in the process. I see your sacrifices and know that it is your bright hopes for me that fuel your perseverance. Thank you for leading by example and teaching me the value of dedication. I love you, Mama.

Finally, I want to express my deepest gratitude to my friends—my chosen family—whose friendships have nurtured my soul and ignited my spirit when I needed it the most. It is through the safe spaces that we've created together that I've been consistently reminded of my capabilities and my passions. I thank you from the very bottom of my heart. You know who you are, and I love you dearly.

And to everyone who has offered me words of advice, wished me good luck, or otherwise gifted me with their support during this chapter—thank you, thank you, thank you.

Abstract

Existing research on grief suggests that bereavement and romantic dissolution share similarities in how individuals experience and manage the distress that follows these stressful events. The present research examines the individual differences in the grief responses experienced (i.e., regret behaviors, satisfaction with life) and coping strategies used (i.e., rumination behaviors) after a romantic breakup through the lens of attachment theory. A cross-sectional online questionnaire was distributed in the Netherlands to collect data from 346 participants. In addition to socio-demographic and romantic demographic questions, the questionnaire included the Satisfaction with Life Scale (SWLS), 10-Item Rumination Response Scale (RRS-10), Regret Elements Scale (RES), and Adult Attachment Scale (AAS). The results showed that both attachment anxiety and attachment avoidance are associated with rumination and regret behaviors following a romantic breakup. Contrary to expectations, however, attachment avoidance was found to be positively associated with satisfaction with life while attachment anxiety did not appear to have a significant relationship with life satisfaction. Taken together, the findings suggest that individual differences in adult romantic attachment play a role in the grief responses experienced and coping strategies selected after romantic dissolution, demonstrating the need to consider attachment in the context of romantic grief.

Introduction

Empirical literature and anecdotes alike generally acknowledge a romantic breakup as being a common and severely distressing life event (Heshmati, Zemestani, & Vujanovic, 2022). Importantly, a growing area of research suggests that the dissolution of a romantic relationship shares similarities with experiencing the loss of a loved one in that both are not only stressful but are frequently accompanied by the grieving process—a person’s emotional response to loss (Field, 2011; Mughal et al., 2023). Moreover, both experiences can elicit potentially disruptive symptoms typically associated with grief such as feelings of anxiety and depression as well as difficulties controlling intrusive thoughts (Reimer & Estrada, 2021; Field, 2011). These parallels between bereavement and breakup experiences indicate not only a need to cope with the stress of relationship dissolution but with the grief responses that may follow a romantic breakup (Field, 2011).

Previous studies on stress and loss suggest an association between individual differences, depression or grief(-like) symptoms, and coping strategies following stressful life events (Verhallen et al. 2019; Marshall, Bejanyan, & Ferenczi, 2013). Namely, respective research regarding complicated grief and breakup reactions posits that these individual differences—including gender, age, and attachment style—are associated with different types of coping strategies (e.g., emotion-focused, problem-focused), which in turn are differentially associated with grief management and mental health outcomes in general (Davis et al., 2003; Huh et al., 2018; Caparrós & Masferrer, 2021). Yet, despite these similarities between the processes following bereavement and romantic breakups, there is still a dearth in the literature with few models examining these individual differences in coping strategies and grief responses in the context of relationship dissolution.

Attachment theory is one such framework that may offer a more nuanced understanding of the individual differences in the symptoms and reactions that follow a

romantic breakup. Extant research investigating the role of attachment in responding to and coping with romantic grief suggests that attachment style not only appears to impact the choice of coping strategies following a breakup but the personal and well-being outcomes of individuals after romantic dissolution (Marshall, Bejanyan, & Ferenczi, 2013; Davis et al, 2003). These findings imply the importance of considering individual attachment differences when studying the multifaceted experience of romantic grief.

An Overview of Attachment Theory

Attachment theory derives from the work of John Bowlby and Mary Ainsworth with infants and young children and is based on the idea of an evolutionary adaptation “whose function is to maintain a relatively steady state between an individual and his or her environment” (Bretherton, 1992; Bretherton, 1985, p. 7). According to this evolutionary basis, the attachment system is both a biological and behavioral system that motivates vulnerable individuals to engage in proximity- and support-seeking behaviors when exposed to distress (Bosmans & Borelli, 2022). This system serves to ensure that one’s needs for sufficient care and protection are met, therefore increasing the likelihood of surviving the perils of childhood (Simpson & Rholes, 2017).

Attachment is often conceptualized as different types, commonly referred to as attachment styles or attachment orientations (Marshall, Bejanyan, Ferenczi, 2013). These attachment orientations are typically mapped along two dimensions of attachment insecurity: anxiety and avoidance. Based on varying dispositions in this two-dimensional model of attachment, research has historically distinguished between attachment orientations (Bowlby, 1980; Griffin & Bartholomew, 1994). While there are many terms by which these dispositions are discussed, literature most commonly distinguishes between secure and insecure attachment (Simpson & Rholes, 2017). That is, individuals who exhibit greater attachment anxiety, attachment avoidance, or a combination of the two are typically considered to be

more insecurely attached and those who demonstrate lower attachment anxiety and lower attachment avoidance are considered to be more securely attached (Rossi et al., 2023).

These attachment orientations are associated with different developmental paths as well as unique patterns of emotion regulation and behavior in response to certain types of threatening and distressing situations (Bretherton, 1992; Simpson & Rholes, 2013). For example—compared to individuals who are more insecurely attached—those who are more securely attached appear to be more likely to appraise stressful situations as less threatening, hold optimistic expectations about their coping abilities, and engage in support-seeking behaviors in the face of distress (Belsky, 2002). Furthermore, individuals who exhibit greater attachment insecurity (e.g., attachment anxiety, attachment avoidance) often appear to experience more difficulties in adaptively coping with and processing negative emotions than individuals with greater attachment security (Huh et al., 2017). Namely, those who are more anxiously attached tend to engage in coping strategies that often exacerbate distress and those who are more avoidantly attached tend to adopt deactivation strategies to distance themselves emotionally and cognitively from the source of the distress (Belsky, 2002).

Attachment Theory and Romantic Breakups

Although literature maintains an evolutionary basis for attachment theory, research shows that the mechanisms of attachment function in relationship domains apart from that of the parent-child relationship (e.g., romantic partnerships, friendships) (Simpson & Rholes, 2002). That is, over time and through increased attachment experiences, individuals develop mental records—or working models—of the way they are treated by various attachment figures (Lai & Carr, 2018; Simpson & Rholes, 2017). This implies that the development, regulation, and functionality of these attachment orientations are not limited to one's immediate caregivers but extend to other significant others later in life such as romantic partners (Marshall, Bejanyan, & Ferenczi, 2013). Importantly, Bowlby himself posited that

these working models impact the relationship expectations, attitudes, and beliefs of an individual and that these cognitions guide how the individual thinks, feels, and behaves, especially in the face of interpersonal distress (Simpson & Rholes, 2017). Moreover, contemporary research suggests that attachment may predict various aspects of the way an individual functions in a romantic relationship including the breakup strategies employed by the partner that initiates the breakup as well as the coping strategies adopted to manage the distress following the breakup (Marshall, Bejanyan, & Ferenczi, 2013; Collins & Gillath, 2012; Simpson & Rholes, 2017).

To illustrate, in a series of five studies examining the predictive role of attachment orientations with regards to the selection of breakup strategies, Collins and Gillath (2012) found that attachment avoidance was associated with greater use of indirect breakup strategies (e.g., distant/mediated communication) which may reflect the tendency of avoidantly attached individuals to avoid and disengage during relational conflict as well as maintaining emotional distance from close others. On the other hand, attachment anxiety was associated with greater use of strategies like positive tone, self-blame and de-escalation strategies which may reflect the tendency of anxiously attached individuals to try to maintain a relationship with their ex-partners (Collins & Gillath, 2012).

Attachment Theory and Grief Management

Previous research suggests that different attachment orientations are linked to different emotional and cognitive grief responses that individuals experience after romantic dissolution (Kho et al., 2015; Simpson & Rholes, 2017; LeRoy et al., 2020). Regret is one such grief response that may follow romantic loss and can be conceptualized as comprising two components: affect and cognition, each relating to distinct mechanisms underlying the emotion of regret (Buchanan, et al., 2016). The affective component relates to the typically maladaptive affective experience resulting from the distress, while the cognitive component

relates to a functional and preparatory cognitive experience often involving counterfactual thoughts (Epstude & Roese, 2008; Buchanan, et al., 2016). Studies have found that attachment orientation may influence the experience and outcomes of regret such that attachment anxiety may be predictive of higher levels of relationship regret and regret proneness in close relationships (Saffrey & Ehrenberg, 2007; Joel, MacDonald, & Plaks, 2011). Furthermore, life satisfaction—one component of subjective well-being, which can be described as an individual's cognitive judgments of satisfaction and fulfilment in life—has not only been shown to generally decrease after a romantic breakup but also appears to be influenced by one's attachment disposition in that attachment insecurity is associated with lower levels of life satisfaction (Karataş, Uzun, & Tagay, 2021, Diener et al., 1985; Rhoades et al., 2011; Lavy & Littman-Ovadia, 2011).

The influence of attachment can also be seen in how different individuals engage in specific coping strategies such as rumination, a common coping tactic that may be used following loss of other stressful life events (Saffrey & Ehrenberg, 2007). Rumination refers to the repetitive or recurrent thoughts about a past event, including different subtypes—namely brooding, considered to be a more negative and maladaptive form of rumination, and reflection, considered to be a more positive and adaptive form of rumination (Marshall, Bejanyan & Ferenczi, 2013; Kho et al., 2015). Research suggests that attachment insecurity, namely attachment anxiety, is strongly associated with more engagement in negative forms of rumination compared to other attachment orientations, indicating that attachment differentially affects the personal and interpersonal outcomes of rumination (Saffrey & Ehrenberg, 2007).

Aims of the Present Study

The current research investigates the differences in how individuals respond to and cope with the grief and distress following romantic breakups through the lens of attachment

theory. That is, the present study seeks to bridge the gap in the literature on romantic grief by examining how attachment anxiety and attachment avoidance impact regret behaviors and life satisfaction experienced as well as the rumination behaviors individuals engage in following a romantic breakup.

In accordance with existing attachment research, and considering the parallels between the experiences of bereavement and romantic loss, the following hypotheses were investigated: 1) High attachment anxiety leads to more engagement in rumination behaviors in comparison to high attachment avoidance, 2) Attachment anxiety is associated with negative cognitive and emotional grief responses such that high attachment anxiety leads to decreased SWL and increased regret, in comparison to high attachment avoidance, and 3) Attachment avoidance is associated with emotionally maladaptive coping strategies such that high attachment avoidance leads to increased engagement in rumination behaviors, and more specifically, brooding behaviors.

Methods

Study Design and Procedure

The present study was part of a larger project on individuals' reflections on past romantic relationships. This research used a cross-sectional design in which a voluntary and anonymous online questionnaire was conducted in the Netherlands between 1 and 20 June 2023. Ethics approval was provided for the study by the Ethics Committee of the Faculty of Behavioural and Social Sciences at the University of Groningen (PSY-2223-S-0433).

Individuals who had experienced a romantic relationship that resulted in a breakup were invited to participate. A targeted ad with information regarding the research was distributed via the online Dutch research panel, Panel Inzicht. The sample size was determined upon reviewing similar studies and conducting a power analysis. Specifically, a sample size calculation was

computed, and based on this, an approximate number of 300 participants was determined as the minimum sample size needed for the present study.

The inclusion criteria for the study required that participants were aged 18 years old or older and indicated their willingness to share their reflections regarding a previous romantic relationship. Participants were first asked to provide their informed consent to participate in the study, after which they started the questionnaire. Those who completed the questionnaire were compensated 3 EUR for their time. Data were collected by the research team at a single time point while participants' information was managed by the research panel, which also provided compensation for participating.

The questionnaire took participants an estimated 20 minutes to complete. Information collected included socio-demographics, romantic demographics, romantic regrets, satisfaction with life, rumination behaviors, regret behaviors, and adult attachment. Romantic regrets related to the target relationship were examined using open-ended questions which were dichotomously coded by two coders. However, this data was not relevant to the hypotheses in question and were therefore not included in the present analysis. Moreover, the Satisfaction with Life Scale (SWLS) (Diener et al., 1985), 10-item Ruminative Response Scale (RRS-10) (Treynor, Gonzalez, & Nolen-Hoeksema, 2003), Regrets Elements Scale (RES) (Buchanan et al., 2016), and Adult Attachment Scale (AAS) (Collins & Read, 1990) were used to measure satisfaction with life, rumination behaviors, regret behaviors, and adult attachment, respectively.

Measures

Socio-demographic and romantic demographic information

Information regarding participants' socio-demographic characteristics were collected by asking age, gender (i.e., male, female, non-binary/third gender, prefer not to say), and sexual orientation (i.e., straight, gay/lesbian, bisexual, other). Romantic demographic characteristics were collected by asking participants to answer questions regarding the most

recent romantic breakup that occurred in their life (e.g., “What were your expectations for the relationship?”, “How emotionally involved were you at the time of the breakup?”). The romantic demographic questions used in the present study were derived from the relationship characteristics questionnaire from Saffrey & Ehrenberg (2007). The questions regarding relationship length (i.e., “How long did your relationship last?”) and time since the relationship ended (i.e., “How long ago did the relationship break up?”) were answered by participants in number of months while the other questions were answered using 5-point Likert scales with the exception of “Who ended the relationship?” which was answered using a 7-point Likert scale (Saffrey & Ehrenberg, 2007) (see Appendix A).

Cognitive and Emotional Grief Responses – Satisfaction with Life and Regret

Satisfaction with life was measured with the SWLS, a widely used measure of global life satisfaction consisting of five items for which respondents rate their agreement on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) (Diener et al., 1985) (see Appendix B). Life satisfaction is a factor under the umbrella construct of subjective well-being and is a more cognitive-judgmental process compared to other more emotionally driven factors (Corrigan et al., 2013; Diener et al., 1985). In the present research, the SWLS showed good reliability ($\alpha = .887$), and final scores were computed as the mean of all items.

Regret behaviors were measured with the RES which is a tool developed for researchers to measure post-decisional regret. The RES conceptualizes regret as comprised of two distinct components—*affect* and *cognition*—and consists of ten items divided into two corresponding 5-item subscales each requiring a rating on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) (Buchanan, et al., 2016) (see Appendix C). The reliability of the entire scale was good ($\alpha = .926$) as well as both the *affect* ($\alpha = .898$) and *cognition* subscales ($\alpha = .903$). The final scores were computed as the mean of the of all the RES items and the means of the subscale items.

Coping Strategies – Rumination

Rumination behaviors were measured by short version of the RRS derived from the original 22-item scale developed by Nolen-Hoeksema & Morrow (1991). To address concerns regarding items that overlapped with depressive symptoms, Treynor and colleagues (2003) created the shorter 10-item version of the RRS (RRS-10). The RRS-10 conceptualizes rumination as comprised of two factors—brooding and reflection—and asks participants to indicate their agreement on a 4-point Likert scale (1 = almost never, 4 = almost always) (see Appendix D). The current study found the reliability of the scale to be good ($\alpha = .881$) as well as those of the brooding ($\alpha = .826$) and reflection subscales ($\alpha = .792$). The final scores were computed as the mean of all RRS items as well as the means of the subscale items.

Romantic Attachment

Romantic attachment was measured by the AAS, a tool used to examine the different dimensions underlying adult romantic attachment and was developed to replace previous discrete categorical measures of attachment (Collins & Read, 1990; Hazen & Shaver, 1987). The AAS is comprised of two subscales which measure the attachment dimensions of anxiety and avoidance; the Anxiety subscale consists of 6 items while the Avoidance subscale consists of 12 items making a total of 18 items, each to be rated on a 5-point Likert scale (1 = Not at all characteristic of me, 5 = Very characteristic of me) (Collins, 2008) (see Appendix E). In the current research, the reliability was fair for both the avoidance ($\alpha = .709$) and anxiety subscales ($\alpha = .708$). The final scores were computed as the means of the subscale items.

Data Analysis

Data analysis was performed using IBM SPSS Statistics 28.0. In all statistical tests, a p-value below 0.05 was considered significant.

Socio-demographic and romantic demographic characteristics are reported descriptively. A correlational analysis was done for the questionnaire responses to examine

correlations between the independent variable of adult attachment and the dependent variables of regret behaviors, satisfaction with life, and rumination behaviors. Specifically, a Pearson's correlation test was conducted to reveal the relationships of the mean scores of the AAS subscale scores for attachment avoidance and attachment anxiety with the mean scores of the SWLS as well as the RES and RSS along with their subscales.

Moreover, a series of multiple linear regression tests was conducted to explore the independent association of select socio-demographic and romantic demographic characteristics with the outcome variables of satisfaction with life, rumination behaviors, and regret behaviors as well as with adult attachment.

Results

Demographics

A total of 433 participants responded to the questionnaire. The final sample consisted of 346 individuals from whom complete data were collected. Information regarding participants' socio-demographic characteristics is displayed in Table 1. Participants' ages ranged from 18 to 72 years ($M = 39.92$, $SD = 10.38$).¹ Table 2 displays information regarding participants' romantic demographic characteristics.

Correlational Analysis

Romantic Attachment and Grief Responses

The results of a Pearson's correlation test displayed in Table 3 reveal a positive significant relationship between SWLS mean scores and the mean score on attachment avoidance ($r = .13$, $p < .05$) but no significant relationship with attachment anxiety. This finding indicates that high attachment avoidance may lead to increased life satisfaction. The Pearson's correlation also demonstrates positive significant relationships between total RES mean scores and the mean scores on both attachment avoidance ($r = .40$, $p < .001$) and attachment anxiety ($r = .42$, $p < .001$). Likewise, mean scores of both the RES Affect and

¹ The ages of two participants were excluded from the mean age calculation due to a likely error in their typed responses.

Table 1. Socio-demographic characteristics

	Frequency n (%)
Gender (n = 346)	
Male	157 (45.4)
Female	188 (54.3)
Non-binary/third gender	0 (0)
Prefer not to say	1 (0.3)
Sexual Orientation (n = 346)	
Straight	301 (87.0)
Gay/Lesbian	13 (3.8)
Bisexual	23 (6.6)
Other	9 (2.6)

Cognition subscales are positively and significantly correlated with those of attachment avoidance ($r = .39, p < .001$; $r = .34, p < .001$) and attachment anxiety ($r = .47, p < .001$; $r = .30, p < .001$). Taken together, this suggests that high insecurity in both dimensions relates to increased engagement in regret behaviors generally as well as in both affect- and cognition-specific regret behaviors.

Romantic Attachment and Coping Strategies

The Pearson's correlation shows positive significant correlations between total RSS mean scores and the mean scores on the dimensions of attachment avoidance ($r = .44, p < .001$) as well as attachment anxiety ($r = .49, p < .001$). Furthermore, the results show that the mean scores for the RSS Brooding and Reflection subscales also share positive significant relationships with the mean scores on both attachment avoidance ($r = .37, p < .001$; $r = .43, p < .001$) and attachment anxiety ($r = .44, p < .001$; $r = .47, p < .001$). These findings imply that high attachment avoidance and high attachment anxiety relate to increased engagement in rumination behaviors generally as well as brooding and reflection behaviors.

Table 2. Romantic demographic characteristics

	Frequency n (%)
What were your expectations for the relationship? (n = 346)	
Short-term involvement	13 (3.8)
Somewhat short-term involvement	24 (6.9)
Moderate involvement	80 (23.1)
Somewhat long-term involvement	106 (30.6)
Long-term involvement	123 (35.5)
How emotionally involved were you in the relationship at the time of the breakup? (n = 345)	
Superficially involved	14 (4.0)
Minimally involved	25 (7.2)
Somewhat involved	97 (28.0)
Moderately involved	85 (24.6)
Seriously involved	124 (35.8)
Who terminated the relationship? (n = 343)	
Me	78 (22.5)
Mostly me	25 (7.2)
Somewhat me	42 (12.1)
Mutual	75 (21.7)
Somewhat partner	37 (10.7)
Mostly partner	37 (10.7)
My partner	49 (14.2)

Multiple Linear Regression

For exploratory purposes, a series of multiple linear regression models were run to predict the outcome variables of SWLS scores, RSS and subscale scores, and RES and subscale scores, as well as AAS subscale scores from select socio-demographic and romantic demographic variables. That is, for the purposes of the current study, only the socio-demographic variable of gender as well as the romantic demographic variables pertaining to

Table 3. Descriptive Statistics and Correlations for Attachment Insecurity Dimensions and Dependent Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Avoidance	344	3.13	.53	—								
2. Anxiety	343	2.96	.72	.57**	—							
3. SWL	343	4.37	1.28	-.13*	.002	—						
4. Total Rumination	346	2.23	.62	.46**	.49**	-.15**	—					
5. Brooding	345	2.25	.68	.37**	.44**	-.23**	.93**	—				
6. Reflection	346	2.20	.65	.43**	.47**	-.04	.92**	.71**	—			
7. Total Regret	343	3.91	1.33	.37**	.42**	-.10	.56**	.55**	.48**	—		
8. Regret (Affect)	343	3.71	1.45	.39**	.47**	-.11*	.59**	.58**	.52**	.92**	—	
9. Regret (Cognition)	343	4.12	1.45	.34**	.30**	-.07	.43**	.43**	-.36**	.92**	.68**	—

*Correlation is significant at the 0.05 level (2-tailed)

**Correlation is significant at the 0.01 level (2-tailed)

Table 4. Multiple Linear Regression Analysis Predicting Total RES Scores

Variable	<i>B</i>	<i>SE</i>	β	<i>T</i>	<i>P</i>
Constant	3.64	.70	-	5.26	<.001
Gender	-.11	.14	-.04	-.74	.46
Expectations for the relationship	.02	.08	.02	.24	.81
Emotional involvement	.07	.08	.06	.88	.38
Who ended the relationship?	.11	.04	.18	3.14	.002

Note. *B*, *SE* = unstandardized coefficients; beta (β) = standardized coefficients.

Table 5. Multiple Linear Regression Analysis Predicting RES Affect Subscale Scores

Variable	<i>B</i>	<i>SE</i>	β	<i>T</i>	<i>P</i>
Constant	4.13	.76	-	5.45	<.001
Gender	-.16	.16	-.06	-1.02	.31
Expectations for the relationship	-.06	.09	-.04	-.68	.50
Emotional involvement	.03	.08	.02	.33	.74
Who ended the relationship?	.112	.04	.16	2.84	.01

Note. *B*, *SE* = unstandardized coefficients; beta (β) = standardized coefficients.

Table 6. Multiple Linear Regression Analysis Predicting RES Cognition Subscale Scores

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>
Constant	3.14	.75	-	4.17	<.001
Gender	-.05	.16	-.02	-.34	.74
Expectations for the relationship	.10	.09	.07	1.13	.26
Emotional involvement	.11	.08	.08	1.29	.20
Who ended the relationship?	.11	.04	.16	2.90	.004

Note. *B*, *SE* = unstandardized coefficients; beta (β) = standardized coefficients.

Table 7. Multiple Linear Regression Analysis Predicting AAS Anxiety Subscale Scores

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>
Constant	3.76	.38	-	10.00	<.001
Gender	-.13	.08	-.09	-1.61	.11
Expectations for the relationship	-.03	.04	-.04	-.65	.52
Emotional involvement	-.06	.04	-.09	-1.38	.17
Who ended the relationship?	.02	.02	.07	1.22	.22

Note. *B*, *SE* = unstandardized coefficients; beta (β) = standardized coefficients.

Table 7. Multiple Linear Regression Analysis Predicting AAS Avoidance Subscale Scores

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>P</i>
Constant	3.50	.28	-	12.63	<.001
Gender	-.09	.06	-.09	-1.64	.10
Expectations for the relationship	.04	.03	.09	1.40	.16
Emotional involvement	-.06	.03	-.13	-2.01	.05
Who ended the relationship?	.03	.01	.13	2.28	.02

expectations for the relationship, emotional involvement, and relationship termination were included as predictor variables in the exploratory multiple regression analysis tests.

For the model predicting total RES scores, a significant regression equation was found ($R^2 = .04$, $F(4, 337) = 3.37$, $p = .01$). Specifically, relationship termination significantly predicted total RES scores ($\beta = .18$, $p = .002$). Table 4 illustrates the details of the multiple linear regression test predicting total RES scores. Moreover, the models predicting RES Affect subscale scores ($R^2 = .04$, $F(4, 337) = 3.12$, $p = .02$) and RES Cognition subscale scores ($R^2 = .05$, $F(4, 337) = 4.20$, $p = .002$) were also found to be significant. It was found that relationship termination was a significant predictor of both RES Affect subscale scores ($\beta = .16$, $p = .01$) and RES Cognition subscale scores ($\beta = .16$, $p = .004$). Table 5 shows the details of the model predicting RES Affect subscale scores; Table 6 shows the details of the model predicting RES Cognition subscale scores. Furthermore, the model predicting AAS Anxiety subscale scores was found to be significant ($R^2 = .03$, $F(4, 337) = 2.73$, $p = .03$), yet all of the predictors appear to be non-significant. Table 7 shows the models predicting AAS Anxiety subscale scores. Finally, the model predicting AAS Avoidance subscale scores was

also found to be significant ($R^2 = .04$, $F(4, 338) = 3.10$, $p = .02$). Namely, emotional involvement ($\beta = -.13$, $p = .046$) and relationship termination ($\beta = .13$, $p = .02$) were found to significantly predict AAS Avoidance subscale scores. Table 8 displays the details of the multiple linear regression analysis predicting AAS Avoidance subscale scores. The models predicting SWLS scores as well as RSS and subscale scores were found to be non-significant.

Discussion

The present study examined the interplay between adult romantic attachment, grief responses, and coping strategies following romantic dissolution. The results suggest that different attachment dispositions may affect the way that individuals emotionally and cognitively respond to as well as cope with the grief experienced after a breakup.

Namely, the findings support the hypothesis that attachment anxiety is positively and more strongly correlated with rumination behaviors than attachment avoidance. Moreover, both attachment insecurity dimensions were found to be significantly associated with

Note. B, SE = unstandardized coefficients; beta (β) = standardized coefficients.

brooding-specific rumination behaviors, thereby confirming both the first and third hypotheses regarding rumination. That is, the results suggest that both individuals with high attachment anxiety and high attachment avoidance tend to engage in rumination behaviors to cope with the end of a romantic relationship. This is in line with previous research which demonstrates that anxiously attached individuals may spend more time emotionally processing a situation in ways that may exacerbate rather than diminish distress (e.g., brooding) (Marshall, Bejanyan, & Ferenczi, 2013; Saffrey & Ehrenberg, 2007). Importantly, the findings align with studies showing that, despite their tendencies to emotionally distance themselves from distress, avoidantly attached individuals—like their anxiously attached counterparts—also engage in dysfunctional rumination behaviors (Marshall, Bejanyan, & Ferenczi, 2013; Lanciano et al., 2012).

However, contrary to expectations, the results do not support the hypothesis that attachment anxiety is negatively correlated with satisfaction with life. Rather, the study did not find a significant relationship between attachment anxiety and life satisfaction. However, attachment anxiety was found to be positively correlated with regret behaviors. Rather, the results suggest that individuals who score highly on attachment avoidance may experience increased levels of life satisfaction. This contradicts existing research which demonstrates that both dimensions of insecure attachment are negatively linked with satisfaction with life while attachment security is more positively associated with satisfaction with life following stressful life events (Lavy & Littman-Ovadia, 2011; Temiz & Cömert, 2018). Importantly, while this study found that both dimensions of attachment insecurity hold significant relationships with each of the measured variables, attachment anxiety is more strongly correlated with all measured variables with the exception of satisfaction with life, with which attachment avoidance shares a significant positive correlation. This implies that, compared to attachment anxiety, attachment avoidance may be associated with even greater life satisfaction, a finding which supports existing literature suggesting that avoidantly attached individuals experience less emotional distress than those who are anxiously attached (Simpson & Rholes, 2017). Future studies may find it of interest to further examine the differences between attachment orientations in terms of life satisfaction and other dimensions of subjective well-being.

Additionally, the current study explored the predictive relationships between specific socio-demographic and romantic demographic variables and the outcome variable measures of SWLS scores, total RSS and subscale scores, total RES and subscale scores, as well as AAS subscale scores. The socio-demographic variable of gender was chosen as a predictor variable in line with established literature suggesting that it may be helpful to consider the consequences of romantic attachment within the context of gender roles (Pietromonac & Carnelley, 1994). The results of the present study did not with this literature in that a

significant predictive relationship was not found between gender and any of the outcome variables, which indicates that there does not appear to be a gender difference. One possible reason for this is that the gender differences in attachment may be less robust than other sociocultural factors such as the cultural context and social roles by which the participants function (Schmitt, 2003). In line with this, future research may find it helpful to consider additional sociocultural factors.

The romantic demographic variables of expectations for the relationship, emotional involvement, and relationship termination were chosen in line with the work of Saffrey & Ehrenberg (2007) on attachment and romantic post-relationship adjustment. There appeared to be no predictive relationship between expectations for the relationship and any of the outcome variables. However, relationship termination appeared to be a significant predictor of total RES scores as well as both RES subscale scores, suggesting that the perceived initiator of the breakup—that is, which partner individuals perceive as having ended the relationship—may predict engagement in regret behaviors as well as attachment avoidance. Another noteworthy finding of this exploratory analysis is the predictive relationship that was found between AAS Avoidance subscale scores and both emotional involvement and relationship termination. This is of particular interest since established literature posits that attachment plays a predictive role in the experience and reactions of an individual following a romantic breakup (Davis et al, 2003), yet the present research suggests an inverse relationship. Future research may find it worthwhile to further examine these relationships.

Limitations

Firstly, while the cross-sectional design of the present study allowed for greater ease in recruiting participants and collecting data, cross-sectional studies are limited in their ability to establish causal relationships; therefore, only correlational information can be derived from the results (Wang & Cheng, 2020). Preferably, the study's hypotheses would be investigated

by means of an experimental design which comprises conditions based on attachment orientations. Moreover, given that the inclusion criteria for the study was general in that the questionnaire was made open to individuals who 1) are 18 years or older, 2) experienced a romantic breakup and 3) indicated that they were willing to reflect upon this romantic breakup experience, the time that had passed since the breakup was not controlled for. Along with the nature of a self-report questionnaire, this may pose limitations in terms of the participants' responses to the romantic demographic questions as well as the Likert scale questions, since the human memory is fallible and subject to the influence of one's experiences over time as well as gradual change and degradation (Lomas, Ayodeji, & Brown, 2023).

Furthermore, this study was conducted in the Netherlands, and while the population from which the participants were recruited largely speaks English, Dutch remains the predominantly spoken language in the country. This being so, because the questionnaire was created and distributed only in English, it is possible that there were participants who did not fully understand the questions that were asked due to barriers in language and understanding of the content. Creating and distributing the questionnaire in both languages may have remedied this issue. Additionally, in terms of the demographics of the sample, the majority of participants reported a heterosexual orientation, and therefore, the results may not be as relevant to non-heterosexual individuals and romantic partnerships. The existing gap in the literature centered around attachment in non-heterosexual partnerships and its implications on romantic grief demonstrate a need for future studies focused on this demographic.

Finally, with regards to the materials used, the current research used the original Adult Attachment Scale as developed by Collins & Read (1990) rather than the revised Adult Attachment Scale whose questions utilize language that is more specific to romantic relationships than that of the former (Collins, 1996). In addition, the present study found the reliability of the AAS subscales to be merely fair which may be in part due to the decision to

compute only two attachment dimensions—attachment anxiety and attachment avoidance—rather than to score according to the three original subscales of CLOSE, DEPEND, and ANXIETY. While the alternative scoring based on only two dimensions allows for insight on the two-dimensional characterization of attachment popular in the literature, the original scoring has been shown to be more sensitive to differences in attachment and decreases the chance of false positives (Collins & Read, 1990).

Conclusion

In the present study, attachment avoidance was significantly correlated with life satisfaction while both dimensions of attachment avoidance were significantly associated with regret as well as rumination, suggesting that attachment insecurity may differentially lead to grief responses and may result in increased engagement in maladaptive coping strategies after a romantic breakup. Considering the methodological limitations of the study in addition to the inconsistent findings in the existing literature, future research should continue examining the implications of an attachment-based framework for romantic grief. That is, the current findings demonstrate a need to further investigate the possible predictive relationships between the different dimensions of attachment, grief management, and mental health outcomes as well as the respective effects of attachment anxiety and attachment avoidance on these measures.

References

- Belsky J. (2002). Developmental origins of attachment styles. *Attachment & human development*, 4(2), 166–170. <https://doi.org/10.1080/14616730210157510>
- Bosmans, G., & Borelli, J. L. (2022). Attachment and the Development of Psychopathology: Introduction to the Special Issue. *Brain sciences*, 12(2), 174. <https://doi.org/10.3390/brainsci12020174>
- Bretherton, I. (1985). Attachment Theory: Retrospect and Prospect. *Monographs of the Society for Research in Child Development*, 50(1/2), 3–35. <https://doi.org/10.2307/3333824>
- Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology*, 28(5), 759–775. <https://doi.org/10.1037/0012-1649.28.5.759>
- Buchanan, J., Summerville, A., Lehmann, J., & Reb, J. (2016). The Regret Elements Scale: Distinguishing the affective and cognitive components of regret. *Judgment and Decision Making*, 11(3), 275-286. doi:10.1017/S1930297500003107
- Caparrós, B., & Masferrer, L. (2021). Coping Strategies and Complicated Grief in a Substance Use Disorder Sample. *Frontiers in psychology*, 11, 624065. <https://doi.org/10.3389/fpsyg.2020.624065>
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, 58(4), 644–663. <https://doi.org/10.1037/0022-3514.58.4.644>
- Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, 71, 810-832.
- Collins, N. (2008). Adult Attachment Scale.

https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Flabs.psych.ucsb.edu%2Fcollins%2Fnancy%2FUCSB_Close_Relationships_Lab%2FResources_files%2FAdult%2520Attachment%2520Scale.doc&wdOrigin=BROWSELINK

Collins, T. J., & Gillath, O. (2012). Attachment, breakup strategies, and associated outcomes: The effects of security enhancement on the selection of breakup strategies. *Journal of Research in Personality*, 46(2), 210–222. <https://doi.org/10.1016/j.jrp.2012.01.008>

Corrigan, J. D., Kolakowsky-Hayner, S., Wright, J., Bellon, K., & Carufel, P. (2013). The Satisfaction With Life Scale. *The Journal of Head Trauma Rehabilitation*, 28(6), 489. <https://doi.org/10.1097/HTR.0000000000000004>

Davis, D., Shaver, P., & Vernon, M. (2003). Physical, Emotional, and Behavioral Reactions to Breaking Up: The Roles of Gender, Age, Emotional Involvement, and Attachment Style. *Personality & Social Psychology Bulletin*, 29, 871–884.

<https://doi.org/10.1177/0146167203029007006>

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). Journal of Personality Assessment, 49(1), 71. https://doi-org.proxy-ub.rug.nl/10.1207/s15327752jpa4901_13

Diener, E., Lucas, R. E., and Oishi, S. (2002). Subjective well-being: the science of happiness and life satisfaction. *Handbook Positive Psychol.* 2, 63–73.

Epstude, K., & Roese, N. J. (2008). The functional theory of counterfactual thinking.

Personality and Social Psychology Review, 12, 168–192.

Field, T. (2011). Romantic Breakups, Heartbreak and Bereavement—Romantic Breakups.

Psychology, 02(04), Article 04. <https://doi.org/10.4236/psych.2011.24060>

Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67(3), 430–445. <https://doi-org.proxy-ub.rug.nl/10.1037/0022-3514.67.3.430>

- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- Heshmati, R., Zemestani, M., & Vujanovic, A. (2022). Associations of Childhood Maltreatment and Attachment Styles with Romantic Breakup Grief Severity: The Role of Emotional Suppression. *Journal of Interpersonal Violence*, 37(13–14), NP11883–NP11904. <https://doi.org/10.1177/0886260521997438>
- Huh, H. J., Kim, K. H., Lee, H.-K., & Chae, J.-H. (2018). Attachment styles, grief responses, and the moderating role of coping strategies in parents bereaved by the Sewol ferry accident. *European Journal of Psychotraumatology*, 8(sup6), 1424446. <https://doi.org/10.1080/20008198.2018.1424446>
- Karataş, Z., Uzun, K., & Tagay, Ö. (2021). Relationships Between the Life Satisfaction, Meaning in Life, Hope and COVID-19 Fear for Turkish Adults During the COVID-19 Outbreak. *Frontiers in psychology*, 12, 633384. <https://doi.org/10.3389/fpsyg.2021.633384>
- Kho, Y., Kane, R. T., Priddis, L., & Hudson, J. (2015). The Nature of Attachment Relationships and Grief Responses in Older Adults: An Attachment Path Model of Grief. *PLoS ONE*, 10(10), e0133703. <https://doi.org/10.1371/journal.pone.0133703>
- Lai, Y. H., & Carr, S. (2018). A Critical Exploration of Child-Parent Attachment as a Contextual Construct. *Behavioral sciences (Basel, Switzerland)*, 8(12), 112. <https://doi.org/10.3390/bs8120112>
- Lanciano, T., Curci, A., Kafetsios, K., Elia, L., & Zammuner, V. L. (2012). Attachment and dysfunctional rumination: The mediating role of Emotional Intelligence abilities. *Personality and Individual Differences*, 53(6), 753–758. <https://doi.org/10.1016/j.paid.2012.05.027>
- Lavy, S., & Littman-Ovadia, H. (2011). All you need is love? Strengths mediate the negative

- associations between attachment orientations and life satisfaction. *Personality and Individual Differences*, 50(7), 1050–1055. <https://doi.org/10.1016/j.paid.2011.01.023>
- LeRoy, A. S., Gabert, T., Garcini, L., Murdock, K. W., Heijnen, C., & Fagundes, C. P. (2020). Attachment orientations and loss adjustment among bereaved spouses. *Psychoneuroendocrinology*, 112, 104401. <https://doi.org/10.1016/j.psyneuen.2019.104401>
- Lomas, M. J., Ayodeji, E., & Brown, P. (2023). Imagined places of the past: The interplay of time and memory in the maintenance of place attachment. *Current Psychology*. <https://doi.org/10.1007/s12144-023-04421-7>
- Marshall, T. C., Bejanyan, K., & Ferenczi, N. (2013). Attachment styles and personal growth following romantic breakups: the mediating roles of distress, rumination, and tendency to rebound. *PloS one*, 8(9), e75161. <https://doi.org/10.1371/journal.pone.0075161>
- Mughal, S., Azhar, Y., Mahon, M. M., & Siddiqui, W. J. (2023). Grief Reaction. In *StatPearls*. StatPearls Publishing. <http://www.ncbi.nlm.nih.gov/books/NBK507832/>
- Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and post-traumatic stress symptoms following a natural disaster: The 1989 Loma Prieta Earthquake. *Journal of Personality and Social Psychology*, 61(3), 115-121.
- Pietromonaco, P. R., & Carnelley, K. B. (1994). Gender and working models of attachment: Consequences for perceptions of self and romantic relationships. *Personal Relationships*, 1(1), 63–82. <https://doi.org/10.1111/j.1475-6811.1994.tb00055.x>
- Randelović, K., & Goljović, N. (2020). Breakup Grief – The Difference between Initiator and Non-Initiator Depending on Coping Strategies and Attachment. *Zbornik Radova Filozofskog Fakulteta u Pristini*, 50, 47–68. <https://doi.org/10.5937/ZRFFP50-28111>
- Reimer, J. E., & Estrada, A. R. (2021). College Students' Grief Over a Breakup. *Journal of Loss and Trauma*, 26(2), 179–191. <https://doi.org/10.1080/15325024.2020.1757992>

- Rhoades, G. K., Kamp Dush, C. M., Atkins, D. C., Stanley, S. M., & Markman, H. J. (2011). Breaking up is hard to do: the impact of unmarried relationship dissolution on mental health and life satisfaction. *Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, 25(3), 366–374. <https://doi.org/10.1037/a0023627>
- Rossi, R., Ciocca, G., Soggi, V., Jannini, T. B., Gorea, F., Pacitti, F., Rossi, A., Siracusano, A., Jannini, E., & Di Lorenzo, G. (2023). Psychopathological mediators between insecure attachment and psychotic features in a non-clinical sample: The role of depression and interpersonal sensitivity. *Rivista Di Psichiatria*, 58, 160–166. <https://doi.org/10.1708/4064.40478>
- Saffrey, C., & Ehrenberg, M.F. (2007). When thinking hurts: Attachment, rumination, and postrelationship adjustment. *Personal Relationships*, 14, 351-368.
- Schmitt, D. P. (2003). Are men universally more dismissing than women? Gender differences in romantic attachment across 62 cultural regions. *Personal Relationships*, 10(3), 307–331. <https://doi.org/10.1111/1475-6811.00052>
- Simpson, J. A., & Rholes, W. S. (2002). Fearful-avoidance, disorganization, and multiple working models: Some directions for future theory and research. *Attachment & Human Development*, 4(2), 223–229. <https://doi.org/10.1080/14616730210154207>
- Simpson, J. A., & Steven Rholes, W. (2017). Adult Attachment, Stress, and Romantic Relationships. *Current Opinion in Psychology*, 13, 19–24. <https://doi.org/10.1016/j.copsyc.2016.04.006>
- Tepeli Temiz, Z., & tarı cömert, ıtır. (2018). The relationship between satisfaction with life, attachment styles, and psychological resilience in university students. <https://doi.org/10.5350/DAJPN2018310305>
- Treynor, W., Gonzalez, R. & Nolen-Hoeksema, S. Rumination Reconsidered: A Psychometric

Analysis. *Cognitive Therapy and Research* **27**, 247–259 (2003).

<https://doi.org/10.1023/A:1023910315561>

Verhallen, A. M., Renken, R. J., Marsman, J.-B. C., & Horst, G. J. ter. (2019). Romantic relationship breakup: An experimental model to study effects of stress on depression (like) symptoms. *PLOS ONE*, 14(5), e0217320.

<https://doi.org/10.1371/journal.pone.0217320>

Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies: Strengths, Weaknesses, and Recommendations. *CHEST*, 158(1), S65–S71.

<https://doi.org/10.1016/j.chest.2020.03.012>

Appendix A

Romantic demographic questions

What were your expectations for the relationship?

Short term involvement	Somewhat short term involvement	Moderate involvement	Somewhat long term involvement	Long term involvement
1	2	3	4	5

How emotionally involved were you in the relationship at the time of the breakup?

Superficially involved	Minimally involved	Somewhat involved	Moderately involved	Seriously involved
1	2	3	4	5

Who terminated the relationship?

Me	Mostly me	Somewhat me	Mutual	Somewhat partner	Mostly partner	My partner
1	2	3	4	5	6	7

Appendix B

Satisfaction with Life Scale (SWLS)

	1 Strongly disagree	2 Disagree	3 Slightly disagree	4 Neither agree nor disagree	5 Slightly agree	6 Agree	7 Strongly agree
In most ways my life is close to ideal.							
The conditions of my life are excellent.							
I am satisfied with my life.							
So far I have gotten the important things I want in my life.							
If I could live my life over, I would change almost nothing.							

Appendix C

Regret Elements Scale (RES)

	1 Definitely disagree	2 Disagree	3 Somewhat disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Definitely agree
I am experiencing self-blame about the way I made my decision.							
I wish I had made a different decision							
I am experiencing self-blame							
I would have been better off if I had decided differently							
I feel like kicking myself							
Things would have gone better f I had chosen another option							
I feel sorry							
I should have decided differently							
I feel guilty							
Before, I should have chosen differently							

Appendix D

Rumination Response Scale (RRS)

How often do you...?

	1 Never or almost never	2 Sometimes	3 Often	4 Always or almost always
Think "What am I doing to deserve this?"				
Analyse recent events to try and understand why you are bothered				
Think "Why do I always react this way?"				
Go away by yourself and think about why you feel bothered				
Write down what you are thinking and analyse it				
Think about recent situation, wishing it had gone better				
Think "Why do I have problems other people don't have"				
Think "Why can't I handle things better?"				
Try and understand why you are bothered				
Go someplace alone to think about your feelings				

Appendix E

Adult Attachment Scale (AAS)

	1 Not at all characteristic of me	2	3	4	5 Very characteristic of me
I find it relatively easy to get close to others.					
I do <u>not</u> worry about being abandoned.					
I find it difficult to allow myself to depend on others.					
In relationships, I often worry that my partner does not really love me.					
I find that others are reluctant to get as close as I would like.					
I do <u>not</u> worry about someone getting to close to me.					
I find that people are never there when you need them.					
I am somewhat uncomfortable being close to others.					
In relationships, I often worry that my partner will not want to stay with me.					
I want to merge completely with another person.					
My desire to merge sometimes scares people away.					
I am comfortable having others depend on me.					
I know that people will be there when I need them.					
I am nervous when anyone gets too close.					

I find it difficult to trust others completely.					
Often, partners want me to be closer than I feel comfortable being.					
I am not sure that I can always depend on others to be there when I need them.					