

**The Moderating Effect of Emotion Dysregulation on the Relationship between Avoidant Attachment Style and Dissociation**

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**Abstract**

An insecure attachment style is positively related to dissociative symptoms, meaning that an insecure attachment increases the likelihood of dissociation. The two variables are both related to the inability to use effective emotion regulation strategies, i.e., emotion dysregulation. However, available literature is inconsistent regarding the relationship between the presented variables. The current study suggests a moderating role of emotion dysregulation on the relationship between avoidant attachment and dissociation. More specifically, it was hypothesized that the relationship between avoidant attachment and dissociation would become stronger when levels of emotion dysregulation were higher since the ability to cope with negative affect decreases. To investigate the hypothesis, first-year psychology students ( $N = 128$ ) filled in three questionnaires examining the three variables. The moderation analysis yielded insignificant results. Therefore, the hypothesis was not supported. Future research could investigate the three variables while considering the different dimensions of emotion dysregulation and increasing the sample size.

*Keywords:* Avoidant Attachment, Emotion Dysregulation, Dissociation

## **The Moderating Effect of Emotion Dysregulation on the Relationship between Avoidant Attachment Style and Dissociation**

A wide variety of research is dedicated to the development of psychological disorders. When analyzing the current literature, the attachment styles of individuals can be considered a recurrent theme. A systematic review of literature showed that there is an association between attachment and mental health difficulties (Mullen, 2019). More specifically, Adams and McWilliams (2015) suggest that attachment styles have an influence on several sleep disturbances. In addition, considering the anxiety disorders, the majority of studies provide support for the importance of attachment styles in the maintenance and development of psychological disorders (Zalaznik et al., 2019). Hence, the investigation of attachment styles is shown to be relevant in clinical psychology.

### **Attachment styles**

The Attachment Theory as described by Bowlby (1969) postulates that development of an individual's emerging social, psychological, and biological competence is related to one's relationship with the caregiver. Moreover, starting at an early age, one acquires an attachment style based on the quality of these experiences (Bowlby, 1969). An attachment style can be defined as a collection of expectations or mental representations of the individual in relationship with others (Bowlby, 1969). The theory was refined, and attachment styles were said to be divided along four dimensions, namely, anxious attachment, avoidant attachment, disorganized attachment, and secure attachment (Allen, 2023). As described in the research by Allen (2023), Ainsworth suggests that attachment styles are activated under certain circumstances, for instance, as shown by the Strange Situation Paradigm, when a stranger arrives. In elaboration, the Strange Situation Paradigm measures the infant's reaction to the absence of the caregiver and the presence of the stranger. The procedure is developed

to induce distress in the infant which activates the attachment behavior (Allen, 2023).

Furthermore, an infant learns the most effective behavior for gaining a sense of security and proximity to the caregiver, meaning that the attachment behavior is a conditioned response to such environmental cues, and it is goal-oriented behavior (Allen, 2023). Hence, insecure attachment style develops due to caregiver's perceived availability, their response to distress, and their incoherent behavior and mood (Allen, 2023). Moreover, when the child-parent relationship lacks security, the development of an insecure attachment style is likely. To further specify, anxious attachment is characterized by intensive worry about separation and rejection combined with a negative self-perception. Whereas avoidant attachment is described as weakening or dismissal of the value of close relationships due to the pessimistic perception of others (Taylor et al., 2015). Finally, disorganized attachment behavior is characterized by the lack of a behavioral goal and one displaying a sequence of contradicting behavior (Allen, 2023).

Attachment styles developed in childhood influence one's attachment behavior in adulthood. Li and Chan (2012) postulate that the two-dimensional model reflects adulthood attachment between parent and peer, or between romantic partners. The model, introduced by Brennan et al. (1998), states that, in adulthood, the anxiety and avoidant attachment dimensions can be used to describe one's attachment style. Furthermore, current literature emphasizes the role of attachment in the quality of romantic relationships in adolescence and adulthood. An avoidant attachment style in adolescence was found to be negatively correlated with connectedness, general support in the relationships, and general satisfaction (Li & Chan, 2012). Additionally, anxious attachment showed a positive association with general conflict in relations (Li & Chan, 2012). Hence, Li and Chan (2012) suggest that avoidant attachment style is more negatively correlated to positive indicators of relationship quality compared to

anxious attachment. In addition, more recent studies suggest that avoidant attachment could be a better predictor of romantic quality in daily life compared to anxious attachment when using self-report measures (Sheng et al., 2022). The available evidence suggests that anxious and avoidant attachment have a different role regarding the quality of relationships.

Therefore, investigating the two different dimensions, rather than just an insecure attachment, is of importance.

### **Dissociation**

Looking at the available literature, one of the associates of insecure attachment is dissociation. In the context of the present study, dissociation is defined as a theoretical construct involving disruptions in memory, identity, and perception of self and environment (Powers et al., 2015). Additionally, dissociation could be used as a mechanism by which one protects the mind from overwhelming experiences, while passively disengaging from reality and compartmentalizing behaviors, memories, thoughts, and feelings (Schimmenti et al., 2021). However, extensive use of dissociation as a response to distressing situations might hinder the capacity of mental integration of experiences, possibly leading to psychopathology, such as post-traumatic stress disorder (PTSD; Schimmenti et al., 2021).

As mentioned before, an insecure attachment style is shown to have a relation with possible psychological impairment. Research suggests that dissociation plays a significant role in the development of symptoms observed in non-psychotic mental disorders (Iskanderova & Vasilyev, 2021). Nilsson et al. (2011) showed a significant relation between dissociation and attachment styles, both anxious and avoidant, in an adolescent sample. In research done by Coe and colleagues (1995) among American students, this relationship is described as positive, insecure attachment is associated with an increase in dissociation. However, the evidence indicates that an anxious attachment style, rather than an avoidant

attachment style, shows the most predictive value regarding dissociation. Moreover, Simeon and Knutelska (2022), found that only anxious attachment style significantly predicted both pathological and non-pathological dissociation in participants with depersonalization disorder, hence a clinical sample. In studies done by Coe et al (1995) and Simeon and Knutelska (2022), attachment was measured by looking at one's relationship to peers or their romantic relationships. Contrarily, research done by Ogawa et al. (1997) suggest that if the mother-child relationship is classified as avoidant attachment, one is more likely to show dissociative symptoms in adolescence. Based on the available literature, it seems that the two insecure attachment styles, namely, anxious and avoidant, might have differential effects on psychopathology. Due to inconsistent results in previous studies about the role of avoidant attachment, the current study focusses on the relationship between avoidant attachment and dissociation.

### **Emotion dysregulation**

It is worth noting that literature has provided evidence for another factor that may influence the effect of avoidant attachment on dissociation, namely, emotion dysregulation. Emotion regulation accentuates the reduction of emotional arousal and the control one has over an emotional experience and expression (Gratz & Roemer, 2004). More specifically, the definition used in the current study refers to emotion regulation as the ability to perceive, evaluate, and modify emotions (Obeldobel et al., 2023). Gratz and Roemer (2004) suggest that emotion dysregulation is a multi-dimensional phenomenon with separate dimensions, namely, (1) lack of awareness of emotional responses, (2) lack of clarity of emotional responses, (3) nonacceptance of emotional response, (4) limited access to emotion regulation strategies perceived as effective, (5) difficulties controlling impulses when experiencing

negative emotions, and (6) difficulties engaging in goal-directed behaviors when experiencing negative emotions.

As aforementioned, avoidant relationships are characterized by parental rejection and lack of emotion shown by the caregiver. Hence, children with avoidant attachment styles minimize the expression of emotions, which may lead to failure in learning adaptive ways of emotion regulation. Empirical research supports the relationship between attachment styles and emotion regulation. For instance, Obeldobel et al. (2023) found the importance of the parent-child relationship in emotion regulation development. Moreover, evidence indicates that avoidant attached children were poorer at regulation emotions and were less likely to use efficient coping strategies (Obeldobel et al., 2023).

Additionally, emotion dysregulation has shown predictive value regarding psychopathology (McLaughlin et al., 2011). Hence, emotion dysregulation might increase the risk of psychopathology, including dissociative disorders. Therefore, the relationship between emotion regulation and dissociation is worth noting. The evidence on the association between emotion dysregulation and dissociation indicates that high levels of emotion dysregulation could be a possible risk factor for the development of dissociative symptoms (Powers et al., 2015). Similarly, Nester and colleagues (2022), found that emotion dysregulation was associated with increased dissociative symptoms in a clinical sample.

Furthermore, Calamari and Pini (2003) examined attachment styles and dissociation in relation to anger proneness. Results reveal that insecure attached females show heightened dissociative symptoms, and more anger proneness. It is tempting to speculate that anger proneness is an indicator of weakened anger management, which in its turn strongly overlaps with emotion dysregulation. In summary, based on existing literature, evidence shows that avoidant attachment is related to dissociation, this relationship can be developed due to

limited access to emotion regulation strategies. One can argue that individuals presenting avoidant attachment behavior show more dissociative symptoms when one is less able to effectively regulate their emotions, hence, when one has low levels of emotion regulation. Thus, when emotion regulation is increasingly compromised, the relationship between avoidant attachment and dissociation could possibly strengthen. Therefore, emotion dysregulation might moderate the relationship between avoidant attachment and dissociation. Since evidence for this conclusion is limited, further research to examine the potential moderating effect of emotion dysregulation is important.

### **The Present Research**

The present research aimed to investigate whether emotion dysregulation moderates the association between avoidant attachment and dissociation. It was hypothesized that the association becomes stronger when the levels of emotion dysregulation increase. The association would then weaken when levels of emotion dysregulation are low.

### **Method**

#### **Participants**

Initially, 143 first-year psychology students took part in the present study. Of the current sample, 103 participants were female and 29 were male, three choose the option “other”, and eight did not report this information. Considering age, 67 participants indicated to be between the age of 16 and 20, 66 individuals were between 20 and 25-years-old, three people indicated an age above 25, and seven participants did not provide the information. In total, 15 participants were excluded due to incomplete responses. Hence, the final sample contained  $N= 128$  participants, whose answers were included in the final data analysis. Participants were recruited via the first year SONA practicum pool of the University of



Groningen. Due to this non-probability sampling, the sample can be considered a convenience sample.

### **Procedure**

First, participants read the study information provided on the SONA platform. Following the concise introduction, including the risk of the study and the participant's right to withdraw from the study at any point, participants were requested to sign a consent form before beginning the 25-30-minute questionnaire. The online platform Qualtrics was used to make the survey accessible for the participants. One's current relations might be perceived as a sensitive topic due to the individual's possible relational difficulties. Therefore, at the end of the survey, a mood repair was included, participants were asked to report a positive memory with their friends or family to undo possible harm. The study was approved by the ethics committee of the University of Groningen.

### **Measures**

#### ***Demographics***

Demographic information, namely, gender and age, was asked by multiple-choice questions. Participants were asked to indicate their age group (16-20 years, 20-25 years, or above 25 years) and gender was assessed while giving subjects the following options: "female", "male", "other", and "I do not wish to answer".

#### ***Dissociation***

Dissociation was measured using the Dissociative Experiences Scale – II (DES-II), consisting of 28 questions on experiences one might have in daily life without being under the influence of alcohol or drugs (e.g., "Some people have the experience of feeling that other people, objects, and the world around them are not real"). The participants were asked to rank the occurrence of the event on a visual analogue scale, 0% indicating never and 100%

always. The DES-II total scores were computed by adding the scores of all 28 items together. It has been shown that the DES-II is reliable and a valid measure in clinical and non-clinical samples with the Cronbach's alpha being 0.95 (Saggino et al., 2020). In the current study, the Cronbach's alpha measured for the DES-II was the same ( $\alpha = 0.95$ ).

### *Emotion Dysregulation*

A self-report, Emotion Regulation Scale (DERS), was used to assess emotion regulation difficulties. Thirty-six questions were asked using a 5-point Likert scale (1= "Almost never", and 5= "Almost always"). An example of an item is "I am confused about how I feel". The questionnaire assesses difficulties in emotion regulation in the following six dimensions: (1) non-acceptance of emotional responses, (2) difficulties engaging in goal-directed behaviors, (3) impulse control difficulties, (4) lack of emotional awareness, (5) limited access to emotion regulation strategies, and (6) lack of emotional clarity. The sum scores were used for data analysis and obtained by adding the scores of 36 items together. Previous research indicates that the internal consistency of the DERS was within the acceptable range with an alpha of 0.93 (Gratz & Roemer, 2004). Cronbach's alpha in the present study is in line with previous findings, showing high internal consistency ( $\alpha = 0.95$ ).

### *Attachment Style*

Finally, adult attachment was measured using the Experience in Close Relationships-Revised (ECR-R) questionnaire. A 36-item survey measuring two subscales of attachment, avoidance and anxiety, while taking into account participants relationships with their current or previous romantic partner. Questions asked about one's avoidant attachment style (e.g., "I find it difficult to allow myself to depend on romantic partners) are directed towards the individual finding discomfort with intimacy and seeking for independence. Subjects are asked to indicate how much they agree to the statement presented on a 7-point Likert scale (1=

“Strongly disagree”, and 7= “Strongly agree”). In the context of the present study, only the responses to the avoidant statements were used in data analysis. The ECR-R total avoidant score was computed by adding the scores of the 18-items considering avoidant attachment together. Existing literature showed a Cronbach’s coefficient for the anxiety ( $\alpha = 0.91$ ) and the avoidance ( $\alpha = 0.94$ ) subscales, which both indicated high internal consistency (Fairchild & Finney, 2006). The Cronbach’s alpha found in the current study, regarding the avoidance subscale, confirmed high internal consistency ( $\alpha = 0.96$ ).

***Statistical Analysis of the Hypothesis***

The response to the three questionnaires were examined, and the statistical report was established using the software SPSS. Before the analysis, SPSS handled missing values by omitting them from the main analysis, using list wise deletion. The main analysis, i.e., moderation analysis, was performed using an extension in SPSS, namely, Process Macro with 5000 bootstrap samples (Hayes, 2012). Assumptions were checked and the results are discussed in the result section.

**Results**

Moderation analysis was conducted to understand the moderating effect of emotion dysregulation on the relationship between avoidant attachment style and dissociation. The descriptive information about the measures is displayed in Table 1.

**Table 1**

*Descriptive Statistics of the Included Variables*

	<i>N</i>	<i>Mean</i> <i>(SD)</i>	<i>Min-Max</i>	<i>Skewness</i>	<i>Kurtosis</i>
DES	131	667.10 (460.23)	70-1970	.95	-.02

ECR-R	133	58.56 (22.26)	19-120	.377	-.43
DERS	130	91.95 (23.72)	52-158	.60	-.10

*Note:* DES = Dissociative Experience Scale-II total score, ECR-R = Experiences in Close Relationships Scale Revised total score, DERS = Difficulties in Emotion Regulation Scale total score.

**Assumption Check**

Before starting the data analysis, the assumptions for moderation analysis were checked. The linearity assumption was checked by looking at the scatterplot of the relationship between each independent variables and the dependent variable, the linearity assumption was not violated. The multicollinearity assumption was investigated by looking at the collinearity statistics (*VIF* = 1.33, *Tolerance* = 0.75), which were both within acceptable range with regard to the established cut off scores, the *VIF* score was below 10 and the tolerance score was higher than 0.2. Additionally, multicollinearity can be checked by looking at the zero order correlations, see table 2, there were no issues regarding the correlations.

**Table 2**

*Zero Order Correlations between Variables*

	1	2	3
1. DES	.		
2. ECR-R	.27*	.	
3. DERS	.54*	.50*	.

$N = 128$  Note: DES = Dissociative Experience Scale-II total score, ECR-R = Experiences in Close Relationships Scale Revised total score, DERS = Difficulties in Emotion Regulation Scale total score.  $*p < .001$ .

According to the Durbin Watson statistic, which was 2.17, the values of the residuals are shown to be independent, hence, the third assumption is not violated. Considering the homoscedasticity, a scatterplot showing predicted standardised values against the standardised residuals obtained was examined. Accordingly, the homoscedasticity assumption was not violated. However, when looking at the P-P plot for the model, the values of the residuals did not seem normally distributed, violating the normality assumption. Since all other assumptions were met and the sample size is large enough, the planned moderation analysis was deemed appropriate (Ernst & Albers, 2017). However, due to the not entirely normal distribution of residuals, the results ought to be interpreted with caution. Finally, to rule out significant outliers, Cook's distance was calculated, according to this statistic, the dataset did not contain extreme outliers.

### **Moderation Analysis**

The moderation analysis contained the dependent variable dissociation, the independent variable avoidant attachment style, and the moderating variable emotion dysregulation. The results showed that the interaction effect between emotion dysregulation and avoidant attachment style on dissociation was not significant ( $F(1, 124) = 0.48, p = 0.49, R^2 = 0.00$ ). In other words, emotion dysregulation did not moderate the effect of avoidant attachment style on dissociation. Therefore, the results of the analysis were not in line with the hypothesis.

Regarding the relationships between the variables, results indicate that the association between emotion dysregulation and dissociation was significant ( $\beta = 8.43$ ,  $t = 2.11$ ,  $p = .04$ , 95% CI [0.50, 16.36]). Hence, emotion dysregulation showed a significant relationship with dissociation measured in the current sample. Additionally, the main effect of avoidant attachment style and dissociation, was insignificant ( $\beta = -3.95$ ,  $t = -.66$ ,  $p = .51$ , 95% CI [-15.79, 7.88]). Thus, an avoidant attachment style did not have a significant influence on dissociation.

### Discussion

The present study aimed to investigate the moderating effect of emotion dysregulation on the relation between avoidant attachment and dissociation. It was hypothesized that emotion dysregulation showed a moderating effect on the relationship between avoidant attachment and dissociation. The results of the present study provided no evidence supporting the moderating effect. To my knowledge, no study has examined the moderating role of emotion dysregulation on avoidant attachment and dissociation. However, Tran (2023) researched the moderating effect of emotion dysregulation on dissociation and *anxious* attachment. The results of the current study indicated that participants with an avoidant attachment style did not show more dissociative symptoms when they had higher levels of emotion dysregulation. Thus, higher levels of emotion dysregulation did not strengthen the relationship between avoidant attachment and dissociation. The insignificance could be explained by the study conducted by Jansson (2023) investigating the possible mediating effect of emotion dysregulation on the relation between insecure attachment style and dissociation. Jansson (2023) found significant results, implying that emotion dysregulation acts as mediator rather than as moderator. The results suggest that an insecure attachment style, could possibly lead to higher levels of emotion dysregulation, and this in its turn may

lead to more dissociation. However, the indicated mediating effect of emotion dysregulation does not illustrate causality due to the cross-sectional design of the study. In addition, in the research done by Jansson (2023), the different dimensions of attachment, i.e., anxious and avoidant, were not addressed. Current literature suggested different emotion regulation strategies for the two dimensions. Specifically, Brenning and Braet (2013) found that avoidant attached individuals would be more likely to suppress sad emotions and show anger dysregulation, whereas anxious attached people would be more likely to show inefficient emotion regulation strategies considering sadness dysregulation (Brenning & Braet, 2013). Research done by a fellow bachelor thesis student is in line with the prediction that the attachment dimensions are important when considering different dimensions of emotion dysregulation. Moro (2023) investigated the different emotion regulation dimensions and their association with the two insecure attachment styles. The results showed that avoidant attachment showed a strong relationship with the lack of emotional awareness whereas anxious attached individuals did not show a significant relationship with this dimension (Moro, 2023). Thus, there is a difference in emotion regulation difficulties between the two insecure attachment dimensions. The following argument could emphasize the importance of investigating the different dimensions of attachment in future research while considering the mediating role of the different emotion regulation dimensions.

Considering the main effect of avoidant attachment on dissociation, the results indicated an insignificant relationship as well. One could argue that this is inconsistent with expectations since one with an avoidant attachment strives for the dismissal of interpersonal related emotions. The tendency to dismiss attachment, and mistrust others could be a possible motivator to separate oneself from environmental or interpersonal cues. Therefore, one with an avoidant attachment is expected to dissociate when presented with such cues in daily life.

In line with this assumption, Ogawa et al. (1997) showed that avoidant attachment increased dissociative symptoms more than anxious attachment. However, findings in other previous research provided more evidence for the association between anxious attachment and dissociation compared to avoidant attachment (Coe et al., 1995; Simeon & Knutelska, 2022). Shaver & Mikulincer (2002) described anxious attached individuals as one that tends to focus on their own distress by rumination and emotion-focused coping strategies which intensifies the distress. One could argue that repetition of negative affect could lead to an increased sense of detachment from the individual's surroundings. The predictive value of rumination for dissociative symptoms is supported in the research done by Vannikov-Lugassi and colleagues (2021) in which evidence indicated that high levels of rumination were followed by an increase in dissociative symptoms. This could possibly explain the insignificant results in the present sample since the results suggest a weaker and insignificant relationship between avoidant attachment and dissociation. However, Tran (2023) found that in moderation analysis similar to the current study, the main effect of anxious attachment on dissociation was insignificant as well, which is inconsistent with literature mentioned above. The findings of the study conducted by Tran (2023) are in line with the results of the current study.

The relationship between emotion dysregulation and dissociation was shown to be significant in the current sample, these results are in line with previous findings. Cross and colleagues (2015) found a positive relationship between emotion dysregulation and dissociation. Additionally, Nester et al. (2022) showed an association between these variables in a clinical sample. More specifically, higher levels of emotion dysregulation were positively associated with dissociation. The results can be explained by looking at the existing evidence regarding emotion dysregulation. Literature indicated that inefficient emotion regulation



strategies, such as dissociation, is used as a coping mechanism for reducing or avoiding possible distress. When one has limited access to adaptive emotion regulation strategies, one would employ maladaptive strategies to deal with negative emotions. This is illustrated in, for example, PTSD patients and their tendency to dissociate in daily life, which is a possible response to the traumatic event (Powers et al., 2015). Dissociative symptoms can occur after experiencing a traumatic event due to the inability to cope with the emotions and the emotions experienced when being reminded of the event. In the context of the present study, dissociation is not necessarily the result of a traumatic life event. The results of the current research indicated that dissociation can be a possible consequence of the inability to use effective emotion regulation strategies. Thus, the results from the present study, which suggest a positive relationship between emotion dysregulation and dissociation, are in line with existing theories and research. The temporal order of the relationship could not be inferred based on cross-sectional data in the current study.

### **Limitations and Future Directions**

To investigate whether the current sample size could create sufficient power, a power analysis was conducted. Other studies examining the three variables showed a small effect size. The sample size needed to generate sufficient power of 0.80 to detect a small effect size ( $d = 0.20$ ) was equal to 395. In the current sample, only 128 participants fully completed the study, meaning that the current study could possibly be underpowered to detect effects, i.e., an increased risk of type II error. Future research could address the power issue by increasing the sample size.

Furthermore, the present study used self-report measures, which might lead to several limitations. One of which addresses the emotion dysregulation measurement, according to Agako et al. (2022), most measurements capture emotion reactivity or regulation traits, rather

than states. States are defined as the emotional response to a situational stressor, whereas regulation traits are general patterns in the emotional responses that are stable over time. Not measuring the emotional states could be problematic due to the ignorance of environmental factors which influence the emotion regulation process. Future research could benefit from investigating questionnaires that address trait and state emotion dysregulation. Moreover, the questionnaires in the current study did not include an attention check to see whether participants had read the questions with care. Lastly, when looking at the demographics in the present study, the majority of the sample consisted of female participants. This could be a possible limitation since it decreases the generalizability.

As aforementioned, previous literature suggests a difference in effect between avoidant and anxious attachment on dissociation. On the one hand, anxious attachment showed stronger positive relationship with dissociation (Coe et al., 1995; Simeon & Knutelska, 2022). On the other hand, Ogawa et al. (1997) suggested that avoidant attachment led to more dissociation in adolescence. Due to the significant mediating effect measured in the study done by Jansson (2023), future research could further investigate the mediating effect of emotion dysregulation on avoidant or anxious attachment and dissociation, to see whether this possible difference between the insecure attachment styles is transferred to the mediation.

### **Conclusion**

In conclusion, the present findings showed that emotion dysregulation did not have a moderating effect on avoidant attachment style and its relationship with dissociation. The insignificant effect means that different levels of emotion dysregulation do not influence the relationship between avoidant attachment and dissociation. Thus, the hypothesis was not supported. Future research could further examine the relationship between the three variables,

namely, emotion dysregulation, insecure attachment, and dissociation by looking at the different dimensions of insecure attachment, namely, avoidant, and anxious attachment and the different dimensions of emotion dysregulation.

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