

Attachment styles and patterns of self-disclosure during romantic relationship formation

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Abstract

Romantic relationships are of big importance in adulthood. Differences in attachment styles seem to be related to several romantic relationship outcomes, such as relationship satisfaction and self-disclosure. However, research into the association between the relationship formation process and attachment styles falls short compared to research on existing relationship dynamics. By building on the attachment theory, it was investigated whether attachment styles would influence the degree of self-disclosure during relationship formation. It was hypothesized that attachment styles and self-disclosure were associated with relationship formation, and that self-disclosure acted as a mediator in this relationship. A cross-sectional self-reported study (N = 161) was conducted where participants aged 18-29 years old were involved in a romantic relationship at time of participation. Correlations and regression analysis showed that anxious and avoidant attachment in this study were not significantly associated with self-disclosure and relationship formation. Contrary to the expectations, more self-disclosure was associated with slower relationship formation. In addition, self-disclosure did not mediate the relationship between attachment styles and relationship formation. Future research expanding the current findings by including additional contextual and behavioral factors (i.e., earlier relationship experiences, the partner's attachment style) can advance our understanding of mechanisms behind the relationship formation process.

Keywords: attachment style, self-disclosure, relationship formation, working models

Attachment styles and patterns of self-disclosure during romantic relationship formation

Romantic relationships are considered to be one of the most influential social interactions in adulthood (Roberson et al., 2018). Positive romantic relationship interactions positively influence individual well-being, such as life satisfaction and increased self-esteem (Roberson et al., 2018). Research on romantic relationships finds its origins in the 1960s and 1970s, where the focus was mainly on initial romantic attraction. The inception of attachment theory as a framework for studying romantic relationships shifted the focus towards examining existing relationship dynamics by the early 1980s (Finkel et al., 2007). As a result, little is known about how individuals go from the first stages of dating to a committed relationship.

Relationship formation describes the transition from casual dating to an emotionally attached and mutually committed relationship (Knobloch & Carpenter-Theune, 2004). As described by Knapp's (1978) dual staircase model, this process contains five distinct stages; initiating, experimenting, intensifying, integrating, and bonding (Fox et al., 2013). *Initiating* describes the first interaction between two individuals and involved making a first impression. *Experimenting* involves in-depth information seeking as a means of determining the potential of a partner. The *Intensifying* stage is characterized by an increase in self-disclosure and the beginning of commitment. *Integrating* describes the stage where couples form a sense of shared relational identity. Finally, couples publicly announce their relationship in the *bonding* stage (Fox et al., 2013; Knapp, 1978). Despite Knapp's (1978) popular model in the area of interpersonal processes, it remains relatively unknown how attachment styles relate to this romantic relationship formation process.

The strong emotional relation with a caregiver in childhood is called attachment, and has an essential influence on psychological characteristics during life (Honari & Saremi, 2015). Early attachment experiences have great impact on personality and behavior in adulthood. The attachment theory states that internal working models explain how past relational experiences guide behavior and expectations as an adult, creating the basis for romantic attachments in adulthood (Bowlby, 1973; Hazan & Shaver, 1987; Honari & Saremi, 2014; Knee et al., 2013). Adult attachment styles describe the comfort and confidence individuals have in close relationships (Meyer & Pilkonis, 2001). They reflect mental representations of others, oneself in relation to others, and of relations in general. Prior findings identified attachment styles to be associated with several variables in existing

romantic relationships, including relationship satisfaction and self-disclosure (Bippus & Rollin, 2003; Feeney & Noller, 1990; Hendrick et al., 1988; Mikulincer & Nachson, 1991).

Self-disclosure reflects the process in which individuals let themselves be known to others, including any information exchange referring to the self (Mikulincer & Nachson, 1991). Self-disclosure has found to be of crucial importance in the developing stages of a romantic relationship (Willems et al., 2020). However, it remains unclear how self-disclosure influences the relationship between attachment styles and relationship formation. Knowing the underlying motivations of certain behaviors may create a better understanding for both individuals involved in the beginning of a romantic relationship. A better understanding of the partners behavior in turn might contribute to more satisfaction in the relationship interaction (Egeci & Gencoz, 2011; Stackert & Bursik, 2003). Therefore, the current research focusses on attachment styles and patterns of self-disclosure during romantic relationship formation.

Bartholomew (1990) conceptualized adult attachment along two dimensions: anxiety attachment and avoidance of intimacy attachment. These dimensions contain secure, dismissing-avoidant, preoccupied and fearful-avoidant attachment styles (Bartholomew, 1990; Fraley & Shaver, 2000). Individuals high in anxiety score high on the preoccupied and fearful-avoidant style, whereas individuals high in avoidance reflect high scores on the dismissing-avoidant and fearful-avoidant style (Fraley & Shaver, 2000). Attachment anxiety is characterized by excessive worry about rejection and abandonment of the romantic partner, whereas avoidance of intimacy is characterized by uncomfortable feeling with closeness and preferring to remain independent and self-reliant (Fraley & Shaver, 2000). For anxiously attached individuals, the attachment system is hyperactivated as they are overly sensitive to proximity of the attachment figure and cues of possible threat (Li & Chan, 2012). They work hard to maintain closeness with their attachment figure, and experience negative emotions when they fail to do so (Li & Chan, 2012). Anxiously attached individuals are characterized by a high willingness to commit and to fall in love (Schindler et al., 2010). This leads to the first hypothesis:

H1: Anxious attachment is positively associated with relationship formation.

In contrast, the attachment system is deactivated for avoidant individuals, who try their best to keep a distance from others and remain independent and suppress their feelings (Li & Chan, 2012). They deny needs or emotional states that might active the attachment system, and therefore do not allow themselves to become close to their romantic partner (Campbell & Marshall, 2011). Dismissing-avoidance and fearful-avoidance attachment styles, both scoring

high on the avoidance dimension, are characterized by denying the importance of close relationships (Fraley & Shaver, 2000; Li & Chan, 2012). This leads to the second hypothesis:

H2: Avoidant attachment is negatively associated with relationship formation.

As noted before, attachment styles have also been associated with self-disclosure. (Mikulincer & Nachson, 1991). This association likely goes through the mechanism of inner working models and interaction goals, as the internal working models created by early attachment experiences can shape certain goals in social interaction. The inner working models consist of expectations about the availability and responsiveness of attachment figures, and rules that guide the individual's responses to stressful situations (Mikulincer & Nachson, 1991). As a result of these working models, particular attitudes are created towards the individuals with whom one interacts. Therefore, different self-disclosure patterns for the various attachment styles may be the result of differences in the goals they want to attain in social interactions (Mikulincer & Nachson, 1991).

The avoidance of intimacy attachment style is associated with uncomfortable feelings in too much closeness to others (Hammonds et al., 2020). Avoidant individuals tend to reject intimacy as a mechanism of preventing pain of possible rejection, as they have learned that interaction with significant others is painful. Therefore, intimate interaction tends to be highly avoided (Shaver & Hazan, 1988). This goal of keeping distant from others thus may lead to a lack of self-disclosure (Mikulincer & Nachshon, 1991). Dismissive avoidance attachment is associated with a higher level of self-esteem and distrust in others (Bachman & Bippus, 2005). They often reject intimacy, as they are distrusting of others and are not dependent of others for their self-worth (Hammond et al., 2020). The fearful avoidant attachment style is associated with lower levels of self-esteem and low trust in others, which in turn may prevent them from disclosing to others due to fear of rejection (Hammonds et al., 2020). Earlier research findings showed dismissive and fearful avoidant individuals to be less likely to engage in self-disclosure (Hammonds et al., 2020; Milkulincer & Nachshon, 1991). This leads to the third hypothesis:

H3: Avoidant attachment is associated with lower levels of self-disclosure.

Anxious attachment is associated with a heightened proneness towards self-disclosure (Bradford et al., 2002; Stroebe et al., 2006), and with less satisfaction in the self-disclosure they experience from their romantic partners (Campbell & Marshall, 2011). However, the direction of the relation between anxious attachment, self-disclosure and the relationship formation process has not clearly been hypothesized before in the literature. Therefore, the

current study has an explorative aim in investigating a positive the relation between anxious attachment and self-disclosure:

H4: Anxious attachment is associated with higher levels of self-disclosure.

As stated before, self-disclosure is a significant factor in affecting the quality and development of intimate relationships (Cramer, 1990). The ability to reveal personal information and thoughts to another has been found to be a crucial factor in developing close relationships (Mikulincer & Nachson, 1991). Specifically, individuals engaged in intimate relationships are willing to share more intimate information with the other compared to individuals in a non-intimate relationship. As a relationships proceeds to more intimate levels, individuals generally disclose more information about themselves on a personal level (Derlega et al., 1993). Self-disclosure is a reciprocal process which can transform the meaning of a relationship. It makes the development of joint views and goals possible, gradually contributing to the development of a "we-feeling" (Derlega et al., 1993). Therefore, selfdisclosure plays an important role in the relationship formation phase (Attrill & Jalil, 2011; Collins & Miller, 1994; Derlega et al., 2008; Willems et al., 2020). Self-disclosure has great impact on initiating as well as maintaining a relationship, and especially the highly personal disclosed information seems to have important consequences for relationship development and maintenance (Greene et al., 2006). In general, there seems to be a positive linear association between self-disclosure and the development of personal relationships (Greene et al., 2006), leading to the fifth hypothesis:

H5: Self-disclosure is associated with faster relationship formation.

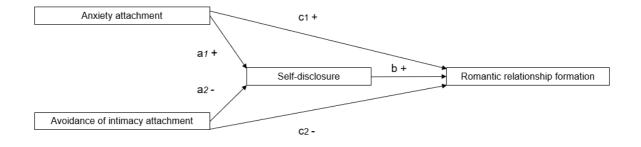
Attachment styles have been studied in relation to romantic relationship dynamics and self-disclosure, however it remains unknown whether attachment styles influence the degree of self-disclosure during relationship formation. A combination of the above-mentioned hypotheses are expected to combine into the mediation model in Figure 1, leading to the sixth hypothesis:

H6: Self-disclosure mediates the relationship between attachment styles and romantic relationship formation.

In conclusion, in the current study it is expected that attachment styles influence the degree of self-disclosure during romantic relationship formation. Specifically, it is expected that attachment styles influence self-disclosure, which, in turn, affects romantic relationship formation (See Figure 1). The insights gained from this study might improve the understanding of the initial relationship dynamics in intimate relationships. As a result, this

study can contribute to the existing literature on attachment styles and romantic relationships, especially in the relatively understudied field of relationship formation. Besides, the insights from this research may benefit couples in the initial stages of intimate relationships by creating a better understanding of the behavior of their romantic partner.

Figure 1Research model visualizing the paths of the proposed hypotheses



Method

Research Design

This study had a cross-sectional and correlational design, using a quantitative questionnaire. The outcome variable was romantic relationship formation. The predictor variables were anxiety attachment and avoidance of intimacy attachment, and the mediating variable was self-disclosure.

Participants

The online questionnaire was responded to by 252 participants who were involved in a romantic relationship at the moment of participation. However, 91 participants were excluded from this study based on not having completed the questionnaire (N = 90), and not mentioning any amount of days in a relationship (N = 1). Thus, the current study included 161 participants aged 18 to 29 years old (M = 22.70, SD = 2.06), of which 83.9 % were women and 15.5 % were men. Less than 1% identified as other. As inclusion criteria, participants had to be in a romantic relationship. Participants were recruited through the network of the researcher and collaborators using a snowball method.

Measures 1

Romantic relation formation

An adapted version of the Relationship Events Scale (RES) was used, consisting of 19 items (King & Christensen, 1983). An example of an item is: "My partner has referred to me as his/her girlfriend/boyfriend". Instead of the Guttman scale used in the original questionnaire, a 5-point Likert scale was implemented which indicated if and when certain milestones were achieved ($0 = happened \ within \ 1 \ month$, $1 = happened \ after \ 1 \ month$, $2 = happened \ between \ 2 \ and \ 3 \ months$, $3 = happened \ after \ more \ than \ 3 \ months$, $4 = has \ not \ (yet) \ happened$). The total score of the RES was measured by adding up all scores, of which a lower score means a faster relationship formation. The Cronbach's Alpha of the RES with the Guttman scale ranged from $\alpha = .17$ to .90 for the different levels (King & Christensen, 1983)². However, as the current study used a Likert scale, the Cronbach's Alpha of this questionnaire ranged from $\alpha = .04$ to .82 for the different levels.

Self-disclosure

The Self-Disclosure Index (SDI) was used, consisting of 10 items on a 5-point Likert scale (1 = discuss not at all to 5 = discuss fully and completely; Miller et al., 1983). An example of an item is: "Things I have done which I am proud of", which indicates topics that have been discussed with a romantic partner. A total score of the SDI was computed by averaging the 10 items, for which a higher total score means more self-disclosure.

The Cronbach's Alpha of this questionnaire ranged from $\alpha = .86$ to .93 (Kito, 2005).

Attachment style

A shortened version of the experiences in close relationships questionnaire – revised (ECR-R) was used, consisting of 10 items on a 7-point Likert Scale (1 = *strongly disagree* to 7 = *strongly* agree; Fraley et al., 2000). Both the anxiety and avoidance dimensions were measured by 5 items each. An example of an item is: "I worry that romantic partners won't care about me as much as I care about them", which measures anxious attachment. A total score of the anxiety and avoidance dimension was computed by averaging the 5 items of each dimension. For both dimensions, a higher average score means a higher anxious/avoidant

¹ The questionnaire was part of a bigger study with multiple researchers. Therefore, other measures were included in the questionnaire not involved in the current study, including online/offline dating, duration of the romantic relationship, after how much time online dating changed to offline dating.

² See King & Christensen (1983) for different levels

attachment. The Cronbach's Alpha of the ECR-R questionnaire for the anxiety and avoidance scale is respectively $\alpha = .94$ and $\alpha = .93$ (Sibley & Liu, 2004).

Procedure

This study was approved by the ethics review board of Utrecht University, with reference number 22-0714. The research was presented as a study about close relationships. Participants first had to give informed consent in order to proceed to the questionnaires (see Appendix A). Participants were informed about anonymous processing of the data and voluntary participation. Besides, participants were told they had the right to withdraw from participation at any point.

After having obtained informed consent, data was gathered with a questionnaire at one timepoint (see Appendix B). The online software of Qualtrics (Qualtrics, 2005) was used for the questionnaire. The questionnaire took approximately 15 minutes. The first part of the questionnaire consisted of demographics about age and gender. In addition, participants were asked about their current relationship duration ("How long have you been together with your partner (in a relationship)?"), and timing of relationship labeling ("After how much time of dating was your relationship with your current partner labeled as 'in a relationship'?"). Next, participants were asked how well they remember the period they first started dating their partner on a scale from 1 to 10. The second part consisted of the Self-Disclosure Index, followed by the Adaptive version of the Relationship Events Scale and the shortened version of the Experiences in Close Relationships questionnaire. The order of the questionnaire was the same for every participant.

Data Analysis

Preliminary analyses

The gathered data was analyzed with IBM SPSS Statistics (version 28). To test the six hypotheses, bivariate Pearson correlations and mediation analysis were conducted. Before conducting the Pearson correlations and mediation analysis, assumptions of linearity, normality, homoscedasticity, and outliers were tested. Then, a mediation analysis via PROCESS by Hayes with model 4 was conducted to investigate the research question and hypotheses. Additional predictors were put in the covariate box and were swapped around in order to allow a mediation analysis with two predictors. Standardized coefficients of bootstrapped indirect effects based on 5000 bootstrap samples were calculated as well as the standard error and 95 % confidence interval (*CI*). Indirect effects were considered statistically

significant when the 95 % CI did not include 0 (Lockhart et al., 2011). Alpha < = .05 was used as cut-off criterion for significance.

Results

Descriptive analysis

Participants in this sample scored a little below the midpoint on the anxiety attachment style (M = 15.12, SD = .97) and the avoidance attachment style (M = 16.17, SD = .52), indicating average scores on the attachment dimensions. Participants scored a little bit below the midpoint on self-disclosure (M = 2.36, SD = .72), but overall an average score on the degree of self-disclosure. Lastly, participants scored very average on the duration of relationship formation (M = 55.73, SD = 10.27), and high on remembering the first period of dating the partner (M = 8.05, SD = 1.51).

Explorative analysis

Explorative analysis for gender and age were conducted for the different variables in the study. Men (M=15.04, SD=.75) did not score significantly differently from women (M=15.13, SD=1.00) on the anxious attachment dimension (r(159)=.05, p=.53). Men (M=16.67, SD=.59) also did not score significantly differently from women (M=16.67, SD=.50) on the avoidant attachment dimension (r(159)=-.00, p=.99). Besides, men (M=2.30, SD=.77) did not score significantly differently from women (M=2.37, SD=.72) on self-disclosure (r(159)=.04, p=.64). Average scores on relationship formation did not significantly differ for men (M=53.40, SD=10.54) than for women (M=56.26, SD=10.17), (r(159)=.07, p=.36).

Age did significantly affect anxiety attachment with a weak association (r(159) = -.17, p = .03). This means that the older the age, the less anxious attachment was reported. Age did not affect avoidant attachment (r(159) = .00, p = .91), self-disclosure (r(159) = -.02, p = .77), or relationship development (r(159) = -.0.8, p = .30).

Hypotheses testing

A bivariate Pearson correlation was conducted to test the association between attachment styles and relationship formation. Before interpreting the results, assumptions of correlations were tested manually. The assumption of normality was met, as normal distribution of the scores was visible. A few outliers were found, but nonetheless included in the data as removing the outliers did not result in any other significant results. The assumption of linearity was met, as no non-linear relationships were visible in the graphs.

No significant correlations were found between both attachment styles and

relationship formation (see Table 1). Concluding from the predictor statistics, hypotheses 1 and 2 are rejected. Besides, no significant correlations were found between anxious and avoidant attachment and self-disclosure, thereby hypotheses 3 and 4 are rejected. A significant low correlation was found between more self-disclosure and faster relationship formation (p < .05). As a higher average on the RES was scored as slower relationship development, the fifth hypothesis is rejected.

PROCESS by Hayes was conducted to explore mediation effects of self-disclosure on the relation between attachment styles and relationship formation. The mediation model was conducted twice, as there is no available model in PROCESS for two independent variables. Therefore, independent variables were put in the covariates box and were swapped around. Before interpreting the results, assumptions of regression were tested. Scatter plots showed that the assumptions of linearity, normality and homoscedasticity were met.

A mediation analysis via PROCESS model 4 was conducted to test whether self-disclosure mediates the relationship between avoidant attachment and relationship formation. The overall model was significant (F(3, 157) = 4.04, p = .01), as the path from self-disclosure to relationship development appeared to be significant (see Table 2). Analyzing the indirect effects, no significant indirect effect was found for anxiety attachment on relationship formation through self-disclosure, $\beta = .02$, 95 % CI [-.02, .07]. In addition, no significant indirect effect was found for avoidant attachment on relationship formation through self-disclosure, $\beta = -.00$, 95 % CI [-.05, .04]. As the indirect effects of the mediation were not as hypothesized, the last hypothesis is rejected. Table 2 presents the unstandardized coefficients of the direct effects. The standardized coefficients of the mediation model with the proposed hypotheses are represented in Figure 2.

Table 1Correlations, mean and stand deviations of the variables attachment styles, self-disclosure and relationship formation (N = 161)

Variables	М	SD	1	2	3	4
1. Relationship formation	15.12	.97	-			
2. Self-disclosure	16.67	.52	.25*	-		
3. Anxious attachment	2.36	.72	.09	.08	-	
4. Avoidant attachment	55.73	10.27	06	.00	.10	-

Note. * means p value < .05

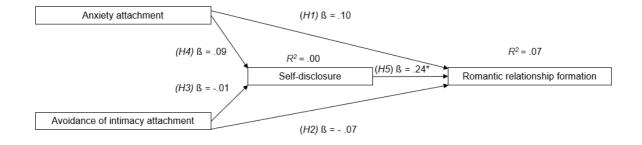
Table 2Direct effects of the mediation between attachment styles, self-disclosure and romantic relationship formation with a 95% confidence interval

Direct effects	Path	b	se	t	р	Lower border	Upper border
						95 % CI	95 % CI
Anxious → RES	c1	1.04	.84	1.23	.22	63	2.71
Avoidant → RES	c2	-1.45	1.58	92	.36	-4.57	1.67
Anxious → SDI	a1	.07	.06	1.12	.27	05	.18
Avoidant → SDI	a2	01	.11	10	.92	23	.21
SDI → RES	b	3.44	1.10	3.14	.00	1.27	5.60

Note. Anxious = anxiety attachment style; Avoidant = avoidance of intimacy attachment style; SDI = self-disclosure; RES = relationship formation; b = unstandardized coefficient; se = standard error. Standardized results are reported in Figure 2.

Figure 2

Coefficients of the research model visualizing the paths of the proposed hypotheses (H stands for hypothesis)



Note. * means p value < .05. All coefficients are standardized with 95% CI detailed between brackets for the indirect effects of attachment style on relationship formation through self-disclosure. R^2 stands for the proportion of variance for a dependent variable explained by independent variables. As the RES is scored reversed, these results show that more self-disclosure is related to slower relationship formation.

Discussion

The aim of the current study was to investigate the working mechanisms behind the romantic relationship formation process. Where previous studies tended to examine mechanisms of dynamics in officially labeled relationships, this study contributes to the

literature by adding a perspective on the process of a relationship formation. A cross-sectional self-reported study was conducted to assess attachment styles, self-disclosure and relationship formation. Based on the attachment theory, it was investigated whether attachment styles would influence the degree of self-disclosure during romantic relationship formation (Bowlby, 1973).

Contrary to the first hypothesis, anxious attachment was not associated with a faster relationship formation. This seemingly contradicts with earlier findings about anxiously attached individuals and their high willingness to commit (Li & Chan, 2012; Schindler et al., 2010). Besides, avoidant attachment was not associated with slower relationship formation. This is contrary to the expectations. The non-significant finding on avoidant attachment and relationship formation were surprising given that avoidant individuals tend to reject intimacy as a mechanism of preventing possible rejection and withdraw from their partners in times of stress and pressure (Shaver & Hazan, 1988; Schindler et al., 2010). One possible explanation for the non-significant findings is that the attachment style of an individual alone may not necessarily translate directly into the formation of a romantic relationship. Instead, interpersonal skills, dating experiences and the partner's attachment style may also play a role in this relationship formation process (Kirkpatrick & Davis, 1994; Schindler, 2010). This is in accordance with an interactionist perspective of attachment styles, which states that within the attachment theory both the variability in the individual and environment predicts behavior (Campbell & Marshall, 2011). With regard to attachment style of the partner, a partner with a similar attachment style likely violates one's expectations of how a romantic partner should behave. For instance, anxious individuals tend to expect their partner to avoid intimacy and be rejecting (Kirkpatrick & Keith, 1994). People feel better when their expectations about themselves and others are confirmed, thus the discrepancy between expectations and a partner's actual behavior may lead to less positive feelings about a relationship with another anxious partner (Pietromonaco & Carnelley, 1994). Perhaps, anxious individuals do seek for faster relationship formation, but the mechanism of these working models prevents them from succeeding in this process.

In addition, anxiously attached individuals often desire an intimate and passionate relationship, however it also seems they are less able to realize this ideal (Mikulincer & Erev, 1991). That is, relationship formation requires reciprocation, and it is possible that stronger experienced negative emotions and impulsive behavior of anxiously attached individuals in social interactions override a reciprocal desire to form a committed relationship for their partner (Campbell & Marshall, 2011; Morgan & Shaver, 1999; Schindler et al., 2010).

Secondly, contrary to the expectation, both anxious and avoidant attachment were not associated with self-disclosure. This may be explained in that disclosure of intimate information is a necessary but not sufficient behavior for creating intimacy (Mikulincer & Nachson, 1991). It is also necessary to be responsive to a partner's communication in order to reinforce the partner's confidence in their intentions, and in turn promote more intimate self-disclosure in the relationship dyad. It is therefore possible that attachment related working models and behaviors relate in different ways to reciprocal self-disclosure in a relationship (Mikulincer & Nachson, 1991). This complex pattern of reciprocity within self-disclosure might account for non-significant findings and thereby needs further investigation. Thus, although attachment styles are well investigated, it may that that they act in concert with other variables to influence self-disclosure.

In addition, contrary to the fifth hypothesis, more self-disclosure was related to slower relationship formation instead of a quicker formation. This is inconsistent with previous studies, where the ability to reveal personal information and thoughts to another seemingly plays a crucial factor in developing close relationships (Greene et al., 2006; Mikulincer & Nachson, 1991). A possible explanation for this is that too much self-disclosure early in the relationship development process may be poorly timed. According to the social penetration theory, self-disclosure passes through a number of phases as a relationship develops (Carpenter & Greene, 2015). In the initial stage, it is expected that partners will avoid certain self-disclosure topics to remain privacy and to protect the relationship from deteriorating. Engaging in high levels of self-disclosure early in the relationship thereby may stagnate the development process, as people wish to gradually develop trust first (Carpenter & Greene, 2015). This also incorporates aspects of the social exchange theory, where undesired experiences lead to costs of the relationship. Too much self-disclosure in the early stages thus might lead the relationship to develop less quickly as there are too many perceived costs (Taylor & Altman, 1987). Further research extending the results of the current study is needed on the transactional nature of self-disclosure and the consequences for the relationship formation process in order to more fully understand the mechanism behind this relation.

Lastly, self-disclosure did not seem to mediate the relationship between attachment styles and relationship formation. The alternative explanations given for the direct paths in the model may also apply for the non-significant finding on the mediation.

Limitations

When generalizing the findings of this study, several limitations must be taken into account. Firstly, the current study relied on a cross-sectional self-reported measurement. Even

though this is an appropriate method, participants are merely providing self-reports referring to their implicit theories linking the different constructs of the study (Hammond & Fletcher, 1991). This might impact the validity of this study, as implicit theories can interfere with the intended measurement (Taherdoost, 2016). Besides, the Alpha of the sixth level of the RES was very low. Perhaps this scale for measuring relationship formation is outdated and needs adjustment to modern times, as in the modern day people tend to live together before getting married and thereby these steps do not necessarily correlate in modern times (Rose-Greenland & Smock, 2013). In addition, the cross-sectional self-reported design might leave open the possibility that participants reported less anxiety and avoidance as a result of currently being involved in a supportive and caring romantic relationship (Holland et al., 2012). That is, self-assessed attachment styles might have been influenced by the quality of the current relationship with a partner.

Secondly, most of the participants had already been involved in their relationship for some time when entering the study, therefore the possibility cannot be excluded that early experiences in the relationship development process might have influenced the self-reported attachment styles of the participants (Kirkpatrick & Davis, 1994). For instance, people can develop relationship-specific attachment styles that can be accommodated to different interpersonal experiences they have (Fraley & Roisman, 2019). This would be consistent with research of Fraley and Roisman (2019), where adult attachment styles seemed to be partly understood with respect to recent interpersonal experiences rather than distal ones per se. Attachment styles might be more malleable than suggested in the literature, and it might be that experiences in adult relationships will alter these early attachment patterns (Hammond & Fletcher, 1991). This is in line with the discussion of attachment working models acting as personality traits on the one hand, and as dynamic representations that can be altered in response to new information and experiences on the other hand (Mikulincer & Nacchson, 1991). It is thus plausible that in the later stages of an intimate relationship, individuals may develop working models of the specific partner and relationship (Bowlby, 1973), thereby reducing the impact of general attachment working models. To avoid results based on interpretation and investigate causal relations, future research needs to investigate relationship dynamics longitudinally. Longitudinal work on the relationship formation process might provide insight at which point in the relationship formation process the attachment styles exert their influence and thereby contributes to a higher validity (Kirkpatrick & Davis, 1994; White & Arzi, 2005). Attachment styles for instance might influence initial attraction, or early relationship dynamics may influence self-reported attachment styles.

Lastly, the current study asked participants currently involved in a romantic relationship to think back of the time they were dating and not yet involved in an officially labeled mutual romantic relationship. It is possible that recall faults resulted in a distorted view of how the situation actually was and thereby threatened the internal validity (Basso et al., 2022).

Contribution of the Study

The current study also has noticeable strengths. Firstly, it expands earlier research in the domain of attachment theory by investigating whether part of the relationship formation process can be explained by different attachment styles, and whether this effect is mediated by self-disclosure. Thereby, this is one of the few studies investigating factors associated with the formation of a relationship instead of dynamics in existing relationships, and also gives direction to future research on the malleability of attachment styles in adulthood (Hammond & Fletcher, 1991). Besides, this is one of the first studies investigating the direction of association between the anxious attachment style and relationship formation. This provides a useful addition to the literature of social psychology within a relatively understudied subject.

Lastly, the insights from this study may benefit couples in the early stage of relationship formation by creating a better understanding of the factors and behavioral mechanisms contributing to the formation of a mutual committed relationship.

Recommendations for Future Research

Future research should be done with a longitudinal design in order to investigate at which point in time the studied variables influence each other and thereby exclude possible alternatives for the current findings. Examining the distinct developmental trajectories based on latent growth mixture models will be useful for identifying patterns of self-disclosure, attachment styles and relationship development (Muthén & Muthén, 2000). In order to measure relationship formation more accurately, the RES should be adjusted by adapting the sequence of relationship events to modern times.

In addition, future research could take earlier relationship experiences and the partner's attachment style into account. Taking into account information on participants' past romantic relationships or experiences in these relationships could add valuable information to the working mechanism within the relationship development process, as social psychological research shows that one of the best predictors for future behavior is past behavior (Schindler et al., 2010). Besides, information on both members of a dyad in a romantic relationship may provide useful information on contextual predictors of relationship formation, as this way a more complete picture will be drawn of the dyadic construct of interest (Schindler et al.,

2010). For instance, this will allow to investigate possible influences of the partner's attachment style on the studied variables. Furthermore, future research should examine interpersonal skills, as prior research indicated that interpersonal skills influence the likelihood of self-disclosure. For instance, *high openers* tend to engage more in reciprocal self-disclosive behavior compared to *low openers* (Derlega et al., 2008). This might be an additional mechanism explaining the relationship between attachment style and self-disclosure.

Lastly, for a deeper understanding of how self-disclosures influences the start of a relationship, the social network of the partners should be examined. The development of a romantic relationship partly depends on the support that the partners receive from their social networks, including friends, family and coworkers (Derlega et al., 2008). Therefore, it would be valuable to examine how revealing information about a new relationship to members of the network impacts the relationship progress. To examine and document cycles in self-disclosure, future research should construct diary methods for collecting data about daily experiences to analyze developmental trajectories (Derlega et al., 2008).

Conclusion

In conclusion, anxious and avoidant attachment styles did not seem to be related to the relationship formation process, and self-disclosure did not mediate the relationship between attachment styles and romantic relationship formation. Contrary to the expectation and earlier studies, a higher degree of self-disclosure was associated with slower relationship formation. Future research should focus on a longitudinal design, and take the additional factors of earlier relationship experiences, the partner's attachment style and interpersonal skills account. This study provided a first step towards investigating the attachment theory framework in relation to the working mechanisms of the romantic relationship formation process. With future research expanding the results of the current study, a deeper understanding of the complex interpersonal processes within relationship formation will be created. This might contribute to a better understanding of the partner's behavior for individuals involved in the initial stages of a romantic relationship, and a possible heightened well-being of the individual as a result of more positive romantic relationship interactions.

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Appendix A

Informed consent

Hello.

We are Anouk van Leeuwen and Benthe Meurs, master students at the University of Utrecht. For our thesis, we are doing research on close relationships. You are being asked to take part in this study. Before you participate in this study, it is important to know what the study entails, what the conditions are for participating and what rights you have as a participant. Please read the following information carefully.

If you are between 18 and 30 years of age and you are currently in a relationship, we would really appreciate it if you would help us with our research.

First you will be asked some demographic information and the dating setting in which you met your current partner. Then we will ask you to think back to the time you started dating your current partner and then answer some questions about the extent to which you exposed yourself to your partner. There will also be questions about your attachment style, the comfort and confidence you have in your close relationship with your partner, and then questions will be asked regarding the formation of your relationship. Filling out the questionnaire will take 10 to 15 minutes and you will not receive a fee for participating.

Participation in this research is entirely voluntary and you may withdraw your participation at any point without consequences. Your answers will be handled with care, which means that the data will be processed anonymously, and your answers will in no way be traceable to third-party respondents. The anonymized data will be stored according to the UU data storage protocol. This means that the data will be stored securely for ten years and used only for this study where only Karst-Jan, Anouk and I have access to the data. You can withdraw your participation at any time without further consequences.

For questions, comments or complaints, please email <u>a.m.f.vanleeuwen@students.uu.nl</u> or b.meurs@uu.nl.

I have read the above mentioned information and understand what the purpose of the research is. The research has been explained to me clearly and I have been able to ask questions.

By signing this form, I,

- O Consent to participate in this research
- O Confirm that I belong to the age group 18-30 year old
- O Understand that participating in this research is completely voluntary, and
- O Understand that my data will be anonymized for publication.

Appendix B

Questionnaire

Demogra	phics
*What ge	nder do you identify with?
O	Male
O	Female
O	Non-binary/third gender
O	Prefer not to say
*What is	your age? ³
The answ	er must lie between 18 and 30 years old.
*I met my	current partner
О	Online (for example on an online dating app such as Tinder, Badoo, Happn)
O	Offline (face-to-face such as at the bar, at school, in the supermarket)
When you	indicated that you met your partner online, it is important that you have met on an
online dat	ing app or site and not through (paid) relationship mediation such as PartnerSelect.
After how	much time of online dating did you and your current partner meet offline? (Please
fill in the	number of days, weeks, or months it took) ⁴
If you hav	re not met your partner online you do not have to complete this question
days	
week	S
mont	hs

³ If respondents did fill in an age under 18 or above 30, they were redirected to the end of the survey.

⁴ If respondents indicated they met their partner offline, they were redirected to the next question and did not have to fill in this one.

*After how much time of dating (whether that was online or offline) was your relationship with your current partner labeled as "in a relationship"? (Please fill in the number of days, weeks, or months it took)⁵

If your relationship is not yet 'officially confirmed' then type in 'yes' in the last box.

weeks
months
years
not yet officially confirmed, then type in 'yes'
*How long have you been together with your partner (in a relationship)?
days
weeks
months
year

Now, we want you to think back to the time when you first started dating your current partner. We can imagine that it can be difficult to remember everything you said or did at that time, because it may have been a long time ago. Nevertheless, we would like to ask you to think carefully about the feelings, thoughts and conversations you had when you and your partner started dating, so that you can answer the following questions as truthfully as possible.

*On a scale from 1 to 10, how well do you remember the time you started dating your partner?

0.1

O 2

O 3

0 4

05

O 6

O 7

⁵ If respondents filled in 'yes' at the last option, they were redirected to the end of the survey.

O 8

09

O 10

To what extent did you disclose things about yourself to your current partner during the time you were dating (i.e. before your relationship was officially confirmed by both of you)? Please indicate below which of the 5 answer options fits best.

I discuss to my partner:

	Discuss fully and completely	Discuss often and moderate	Discuss sometimes and somewhat	Discuss rarely and slightly	Discuss not at all
My personal habits					
Things I have done which I feel guilty about					
Things I wouldn't do in public					
My deepest feelings					
What I like and dislike about myself					

What is important to me in life			
What makes me the person I am			
My worst fears			
Things I have done which I am proud of			
My close relationships with other people			

You will find 19 statements that are about the relationship with your partner. We want you to indicate how long it took before the event that is mentioned happened.

For instance, if your partner said: "I love you" three months after you started dating, then you indicate "Happened between two and three months".

Happened	Happened	Happened	Happened	Has not
within one	after one	between	after more	(yet)
month	month	two and	than three	happened
		three	months	
		months		

My partner has called me an affectionate name (sweetheart, darling, etc.)			
I have called my partner an affectionate name (sweetheart, darling, etc.)			
We have spent a whole day with just each other			
We have arranged to spend time together without planning any activity			
We have felt comfortable enough with each other so that we could be together without talking or doing an activity together			
We have received an invitation for the two of us as a couple			

	1	T	T	1
My partner has referred to me as his/her girlfriend/boyfriend				
I have referred to my partner as my girlfriend/boyfriend				
My partner has said "I love you" to me				
I have said "I love you" to my partner				
My partner does not date anyone other than myself				
I do not date anyone other than my partner				
We have discussed the possibility of getting married				
We have discussed living together				
I have lent my partner more than €20 for more than a week				

My partner has lent me more than €20 for more than a week			
We have spent a vacation together that lasted longer than three days			
We are or have been engaged to be married			
We have lived together or we live together now			

The next section will contain questions about your attachment style with your romantic partner. Please indicate on a scale from 1-7 how much the statement relates to you.

	Strongly disagree						Strongly agree
	1	2	3	4	5	6	7
I worry a lot about my relationships.							
I prefer not to show my partner how I feel deep							

	<u> </u>		1	
down.				
I often worry that my partner doesn't really love me.				
I feel comfortable sharing my private thoughts and feelings with my partner.				
When my partner is out of sight, I worry that he or she might become interested in someone else.				
I worry that romantic partners won't care about me as much as I care about them				
I find it relatively easy to get close to my partner.				
I find it difficult to allow myself to depend on romantic partners				
I feel comfortable opening up to romantic partners.				
I rarely worry about my partner leaving me.				

Thank you for participating in our research. We really appreciate your participation. Perhaps needless to say again, your responses are strictly anonymous and will be handled with care. If

you still have any questions, comments or complaints, you can email to a.m.f.vanleeuwen@students.uu.nl or b.meurs@uu.nl