

The Effect of Rumination on the Stability of Intimate Relationships

Caixin Li^{1,a,*}

¹*School of Psychology, The University of New South Wales, Sydney, 2052, Australia
a. Z5295901@ad.unsw.edu.au*

**corresponding author*

Abstract: The primary purpose of this investigation is to understand the affect of rumination on intimacy and satisfaction. Many previous studies have found that sharing good memories between partners can make their intimate relationships more stable. Therefore, this paper proposes a hypothesis that rumination will destroy the stability of the partnership and reduce intimacy. In this study, Sojump was used to survey 252 Internet users, including 107 males and 145 females. Three questionnaires were used: Rumination Reflection Questionnaire (RRQ), Relationship Assessment Scale and Relationship Closeness Inventory. Correlation analysis and ANOVA were carried out on the data to analyze the relationship between gender, age and 5 variables. The results showed that rumination and future plans with partners showed a significant positive relationship, so it can be considered that rumination and partner intimacy have a positive relationship. In addition, significant negative correlation between age and rumination. The limitation is that the age range of the sample is relatively concentrated, the selected statistical method only shows correlation, and cannot directly reflect its causal relationship, and the questionnaire is based on individual self-report, which may be affected by subjectivity and memory bias. Future research could focus on the reasons for the positive relationship between rumination and partner planning for the future or the relationship between rumination and relationship satisfaction.

Keywords: rumination, reflection, satisfaction, intimacy, future planning

1. Introduction

Intimate relationships are everywhere in society. Dealing with intimate relationships is an essential modern skill. The types of intimate relationships in society are diverse. Family affection, friendship and love are all forms of intimate relationship. During COVID-19, communities around the world have been quarantined, and many relatives and friends have been unable to meet, which may lead to many estranged relationships, and the weakening of relationships has made many people anxious. A study found that recalling past events during COVID-19 when people are alienated by community isolation, could lead to feelings of social support and love [1]. When individuals are satisfied with their social networks, recalling significant social memories can help them feel less lonely [1]. In family affection, talking about the past is importance for children's cognitive development. Fivush and Nelson came up with the concept of "parent-guided reminiscing" [2]. Priddis and Howieson found that children who have the experience of talking about that past with parent can be able to express and describe their emotions more spontaneously and appropriately [3]. Therefore, memories

can be an emotional bond for people, helping them to maintain an intimate connection over a period of time.

Compared with family and friendship, love is more independent, a real intimate relationship between two people, and even includes a part of friendship and family. The study found a concept about couples defining songs (CDSs), which is couples collectively define the connection between a particular song and their relationship [4]. They found that the beginning of CDSs between partners is usually due to a happy common memory, when they hear the music, their happy common memory will be recalled by them, which can improve the cohesion between them and make their relationship more stable [4]. In addition, Barnier et al. conducted an experiment in which 20 elderly couples were asked to recall events together [5]. When couples recall events together, they can recall more content, and because older adults have memory plot deficits, they can get some memory support when recalling events with their partner. However, the same experiment did not work in young couples, possibly because young people do not have memory plot deficits and they can recall without memory support [5]. However, in a romantic relationship, it is easy to argue because of the close contact between two people. When there is an argument, some couples will habitually bring up the experience of past arguments, bringing up bad memories, which may affect the stability of their relationship.

1.1. Rumination and Reflection

Rumination and reflection have gained a lot of attention in recent years. Rumination is repeated and prolonged thinking about some negative worries and annoyances and allows negative emotions to be prolonged and furniture [6]. Rumination can also have an impact on problem solving. Studies have found that rumination impairs problem-solving skills, interferes with positive instrumental behavior, reduces willingness to engage in pleasurable activities, and may lead to decreased confidence and concentration [6]. In addition, a survey has found that men are not as prone to rumination as women, and women are more expressive and more easily to have negative emotions during meditation [7]. A study found that more difficult for women to control their negative emotions, possibly because women are more likely to ruminate [7].

1.2. Relationship Satisfaction and Affinity

In recent years, social changes have led to the increasing popularity of the topic of close relationships, and many studies have begun to discuss the impact of couples' relationship patterns on marriage. It has been shown that the level of intimacy between partners affects their satisfaction, and intimacy and satisfaction are positively correlated [8]. However, in romantic relationships, emotional, communication, and sexual are important manifestations of intimacy, and therefore these are also important correlates of relationship satisfaction [9]. Righetti et al. looked at what helps maintain partner satisfaction, they discovered that trust positively effect on satisfaction, and forgiving a more cooperative partner also positively effect on satisfaction [10].

This study will be conducted to understand whether the mention of old events when couples argue can escalate their arguments and have an impact on their relationship. The effects of rumination on partner satisfaction and intimacy density were analyzed using the evidence that references to the past can affect relationship stability. Therefore, this study will focus on whether rumination and rumination are associated with partner intimacy and satisfaction.

2. Method

2.1. Participant

Participants included 252 Internet users found through Sojump (n = 252). Sojump is a Free Online Survey Creator providing functions equivalent to Google form. Participants were randomly selected, and they all informed and voluntarily recorded their age and gender. In this study, respondents were requested to fill out a survey questionnaire, which was a combination of three scales. In addition, participants in this study had to have been in a relationship.

2.2. Measurements

The research scale contains some basic census questions and also contains the contents of three questionnaires, Rumination-Reflection Questionnaire (RRQ), Relationship Assessment Scale and Relationship Closeness Inventory.

2.2.1. Rumination-Reflection Questionnaire (RRQ)

In this questionnaire, there are two sections, the rumination scale items, and the reflection scale items, both of which have 12 multiple choice questions [11]. The total score of the 12 questions was taken as the mean score for this sub-scale. There are some inverse scoring questions in this questionnaire, which are questions 6, 9, and 10 in rumination section and questions 13, 14, 17, 20, and 24 in reflection section. Two variables, rumination and reflection will be measured.

2.2.2. Relationship Assessment Scale

In this questionnaire, there is a 5-level questionnaire which is designed to measure relationship satisfaction [12]. The responses to each question were scored on a 5-point scale, from 1 manifesting low satisfaction to 5 manifesting high satisfaction. Ratings were maintained on a continuous basis, with higher scores indicating that the respondent was more satisfied with their relationship. Of these, questions 4 and 7 were scored in reverse. The satisfaction variable will be measured.

2.2.3. Relationship Closeness Inventory

In this questionnaire, there are two 7-level questionnaires [13]. The first questionnaire dealt with the extent to which the partner influenced the thoughts, feelings, and behaviors of the respondents. The second questionnaire dealt with how the partner affected the respondent's future plans and goals. Therefore, these two sections will be distinguished when analyzing the questionnaire. Two variables, intimacy and plan will be measured.

2.3. Procedure

The whole procedure was designed to investigate the extent to which participants' rumination affected the closeness of their relationship and their satisfaction with the relationship. Before the start of the study, the three scales were integrated, and the feasibility of the integrated scale was tested. The experiment was conducted in the form of a questionnaire. The researchers used Sojump to randomly distribute questionnaires and asked the subjects to complete the questionnaire according to their personal situation and real thoughts. Participants used electronic devices to scan a QR code or link to the questionnaire web page to answer the questionnaire.

3. Result

Data were analyzed by SPSS statistical software. The sample size was 252 people, including 107 male and 145 female.

Table 1: Frequency analysis of gender and age.

| Items | Categories | N | Percent (%) | Cumulative Percent (%) |
|--------|------------|-----|-------------|------------------------|
| Gender | Male | 107 | 42.46 | 42.46 |
| | Female | 145 | 57.54 | 100.00 |
| Age | Under 18 | 1 | 0.40 | 0.40 |
| | 18-25 | 122 | 48.41 | 48.81 |
| | 26-30 | 117 | 46.43 | 95.24 |
| | 31-40 | 3 | 1.19 | 96.43 |
| | 41-50 | 4 | 1.59 | 98.02 |
| | 51-60 | 5 | 1.98 | 100.00 |
| Total | | 252 | 100.0 | 100.0 |

Table 1 is about the frequency analysis of gender and age of the respondents in this study. According to the analysis, 57.54% of the sample were “Female”. Another 42.46% of the samples were “Male”. 48.41% of the samples were classified as “18-25”. A further 46.43% of the samples were “26-30”. Therefore, the data for ages 18-25 and 26-30 have higher confidence.

Table 2: The relationship between rumination, reflection and intimacy, satisfaction.

| | Reflection | Rumination | Satisfaction | Plan | Intimacy |
|----------------------------|------------|------------|--------------|-------|----------|
| Reflection | 1 | | | | |
| Rumination | 0.299** | 1 | | | |
| Satisfaction | 0.007 | -0.080 | 1 | | |
| Plan | 0.138* | 0.127* | -0.119 | 1 | |
| Intimacy | -0.116 | 0.079 | 0.137* | 0.071 | 1 |
| * $p < 0.05$ ** $p < 0.01$ | | | | | |

Utilizing correlation analysis, the study investigates the correlations among reflection, rumination, relationship intimacy, partner’s influence on plans, and relationship satisfaction, and employs Pearson correlation coefficients to express the correlations (see Table 2).

Through specific analysis, the correlation coefficient among reflection and relationship satisfaction is 0.007, almost 0, with a p-value of $0.907 > 0.05$, manifesting a lack of correlation among reflection and relationship satisfaction. The correlation coefficient among reflection and partner’s influence on the plan is 0.138, significant at the 0.05 level, manifesting a significant positive correlation among reflection and partner’s influence on the plan. The correlation coefficient among reflection and relationship intimacy is -0.116, almost 0, with a p-value of $0.066 > 0.05$, manifesting a lack of correlation among reflection and relationship intimacy.

The correlation coefficient among rumination and relationship satisfaction is -0.080, almost 0, with a p-value of $0.206 > 0.05$, manifesting a lack of correlation among rumination and relationship satisfaction. The correlation coefficient among rumination and partner’s influence on the plan is 0.127, significant at the 0.05 level, manifesting a significant positive correlation among rumination and

partner's influence on the plan. The correlation coefficient among rumination and relationship intimacy is 0.079, almost 0, with a p-value of $0.209 > 0.05$, manifesting a lack of correlation among rumination and relationship intimacy.

Table 3: The relationship between rumination, reflection and gender, age.

| | Gender | Age | Reflection | Rumination |
|----------------------------|--------|---------|------------|------------|
| Gender | 1 | | | |
| Age | 0.004 | 1 | | |
| Reflection | -0.015 | -0.117 | 1 | |
| Rumination | 0.046 | -0.158* | 0.299** | 1 |
| * $p < 0.05$ ** $p < 0.01$ | | | | |

Using correlation analysis, the study examines the correlations among gender, age, reflection, and rumination, and employs Pearson correlation coefficients to express the correlations (see Table 3).

Through specific analysis, the correlation coefficient among gender and reflection is -0.015, almost 0, with a p-value of $0.817 > 0.05$, manifesting a lack of correlation among gender and reflection. The correlation coefficient among gender and rumination is 0.046, almost 0, with a p-value of $0.468 > 0.05$, manifesting a lack of correlation among gender and rumination.

The correlation coefficient among age and reflection is -0.117, almost 0, with a p-value of $0.063 > 0.05$, manifesting a lack of correlation among age and reflection. The correlation coefficient among age and rumination is -0.158, significant at the 0.05 level, manifesting a significant negative correlation among age and rumination.

Table 4: Mean scores for rumination and reflection between gender.

| | Gender (Mean±Std. Deviation) | | F | p |
|----------------------------|------------------------------|----------------|-------|-------|
| | Male (n=107) | Female (n=145) | | |
| Rumination | 22.88±6.53 | 23.46±6.01 | 0.528 | 0.468 |
| Reflection | 19.45±5.40 | 19.31±4.50 | 0.054 | 0.817 |
| * $p < 0.05$ ** $p < 0.01$ | | | | |

To analyse the differences in between gender and contemplation and reflection by ANOVA (see Table 4). From the above table, it can be observed that, with regard to reflection, the differences in reflection among different gender samples do not exhibit significance ($p > 0.05$), manifesting that diverse gender samples demonstrate consistency in both rumination and reflection, without differentiation.

Table 5: Mean scores for rumination and reflection between age.

| | Age (Mean±Std. Deviation) | | | | | | F | p |
|----------------------------|---------------------------|---------------|---------------|-------------|-------------|-------------|-------|--------|
| | Under 18 (n=1) | 18-25 (n=122) | 26-30 (n=117) | 31-40 (n=3) | 41-50 (n=4) | 51-60 (n=5) | | |
| Rumination | 31.03±null | 23.51±6.58 | 23.44±5.42 | 15.36±13.28 | 16.53±6.45 | 19.03±4.30 | 2.827 | 0.017* |
| Reflection | 23.03±null | 19.55±4.71 | 19.39±5.18 | 19.36±2.31 | 18.03±4.69 | 14.63±1.34 | 1.148 | 0.336 |
| * $p < 0.05$ ** $p < 0.01$ | | | | | | | | |

To analyse the difference in between age and rumination and reflection by ANOVA (see Table 5). As observed from the above table, there is lack of significant difference in reflection among different age samples ($p > 0.05$), manifesting that reflection remains consistent across various age samples without variation. In addition, significant differences are evident in rumination among different age samples ($p < 0.05$), manifesting variations in rumination across different age groups. Detailed analysis reveals that age reaches a significance level of 0.05 for rumination ($F=2.827, p=0.017$).

4. Discussion

The reason for conducting this study is that this is a new topic and the general perception in society is based more on the experiences and feelings of the participants themselves than on the results of the laboratory.

Through a series of data analysis and summary, it is concluded that there is no correlation between rumination and partner satisfaction, and there is lack of correlation between rumination and intimacy. That is, reflective rumination had a weak effect on relationship satisfaction and relationship intimacy. However, rumination affected partner impact on planning, with higher scores on rumination indicating more severe partner impact on planning, showing a significant positive relationship. In addition, a significant negative correlation in between age and rumination, but there is lack of correlation between gender and rumination. That is to say, different ages have different rumination, and the younger the age, the more severe the rumination.

Based on the above results, it can be concluded that rumination does not have a long-term impact on the intimacy and satisfaction between couples, but it can affect the partner's future planning, which is one of the items in relationship intimacy. The more rumination, the more likely it is to affect partner's plans for the future. This may be due to emotional support or shared goals in communicating with partners after rumination, a hypothesis that needs further experimental verification. The current study found no association between rumination and relationship satisfaction, however, Ökten discovered that rumination acts as a mediator in partner satisfaction, so future research is needed in this area [14].

However, this study has some limitations. The statistical methods mainly selected were correlation analysis and variance analysis, so different statistical methods may also have different effects on the results. The correlation analysis used in this data analysis, and the results only showed whether they were correlated, but could not directly reflect their causal relationship. The sample age range is concentrated in 18-25 and 26-30, so the sample may affect the generalization of the results. In addition, survey data obtained using questionnaires may be based on individual self-reports and may be subject to subjectivity and memory bias.

In future studies, it also can be carried out in the direction of physiological psychology to understand the changes in brain activity areas, as well as changes in heart rate and blood pressure when people argue, and whether rumination during arguments will bring further changes.

5. Conclusions

The study focused on relationship rumination and partner satisfaction, to see if rumination undermines relationship stability. Happy common memories can improve the cohesion between couples and make the relationship more stable. But bad memories can make people ruminate, especially during arguments, which can cause destabilize relationships. Therefore, less rumination between partners can lead to fewer changes in future plans and a more stable relationship.

References

- [1] Wolf, T., & Nusser, L. (2022). *Maintaining intimacy during the COVID-19 pandemic*. *Applied Cognitive Psychology*, 36(4), 954-961.
- [2] Fivush, R., & Nelson, K. (2006). *Parent-child reminiscing locates the self in the past*. *British Journal of Developmental Psychology*, 24(1), 235-251.
- [3] Priddis, L. E., & Howieson, N. D. (2010). *Parent-child relationships and quality of children's episodic recall*. *Early Child Development and Care*, 180(10), 1299-1309.
- [4] Harris, C. B., Baird, A., Harris, S. A., & Thompson, W. F. (2020). "They're playing our song": *Couple-defining songs in intimate relationships*. *Journal of Social and Personal Relationships*, 37(1), 163-179.
- [5] Barnier, A. J., Priddis, A. C., Broekhuijse, J. M., Harris, C. B., Cox, R. E., Addis, D. R., ... & Congleton, A. R. (2014). *Reaping what they sow: Benefits of remembering together in intimate couples*. *Journal of Applied Research in Memory and Cognition*, 3(4), 261-265.
- [6] Watkins, E. R., & Roberts, H. (2020). *Reflecting on rumination: Consequences, causes, mechanisms and treatment of rumination*. *Behaviour Research and Therapy*, 127, 103573.
- [7] Nolen-Hoeksema, S., & Jackson, B. (2001). *Mediators of the gender difference in rumination*. *Psychology of women quarterly*, 25(1), 37-47.
- [8] Yoo, H. (2013). *Couple intimacy and relationship satisfaction: A comparison study between clinical and community couples*. The Ohio State University.
- [9] Yoo, H., Bartle-Haring, S., Day, R. D., & Gangamma, R. (2014). *Couple communication, emotional and sexual intimacy, and relationship satisfaction*. *Journal of sex & marital therapy*, 40(4), 275-293.
- [10] Righetti, F., Faure, R., Zoppolat, G., Meltzer, A., & McNulty, J. (2022). *Factors that contribute to the maintenance or decline of relationship satisfaction*. *Nature Reviews Psychology*, 1(3), 161-173.
- [11] Trapnell, P. D., & Campbell, J. D. (1999). *Private self-consciousness and the five-factor model of personality: Distinguishing rumination from reflection*. *Journal of Personality and Social Psychology*, 76, 284-304.
- [12] Hendrick, S. S. (1988). *A generic measure of relationship satisfaction*. *Journal of Marriage and the Family*, 50, 93-98.
- [13] Berscheid, E., Snyder, M., & Omoto, A. M. (1989). *The Relationship Closeness Inventory*. *Journal of Personality and Social Psychology*, 57(5), 792-807. <https://doi.org/10.1037/0022-3514.57.5.792>.
- [14] Ökten, M. (2016). *Modeling the relationship among romantic jealousy and relationship satisfaction: the mediator roles of rumination, co-rumination and self-compassion (Master's thesis, Middle East Technical University)*.