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Abstract

Objectives: The present study aimed at examining the actor, partner and similarity effects of optimism on relationship satisfaction in young adult couples. Additionally, the relationship of love biography with optimism and relationship satisfaction was also investigated.

Method: A total of 78 Hong Kong Chinese young adult couples completed a questionnaire that accesses their optimism, relationship satisfaction and love biography. Actor-Partner Interdependence Model (APIM) was used to examine the actor and partner effect, while multiple regression analysis with absolute difference scores of optimism as similarity coefficient was used to examine the similarity effect.

Results: Optimism and length of relationship were found to be significantly correlated with positive relationship satisfaction. There were also significant and equally strong actor and partner effects of optimism on relationship satisfaction. However, the similarity effect was found to be insignificant.

Conclusions: The association between optimism and relationship satisfaction was robust. Within couples, One’s optimism could greatly affect both partners’ satisfactions on their relationship. It indicated that optimism plays an important role in relationship functioning. But, having a similar optimism level with relationship partners is not necessarily a key ingredient for a satisfying romantic relationship.
Acknowledgement

I would like to thank Dr. Julian Lai for his guidance and kind advice in data analyses throughout this study. I would also like to thank all anonymous participants who have taken part in this survey. Without their help, the completion of this study would not have been possible.
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Optimism in Romantic Relationship:
Predicting Relationship Satisfaction from Optimism in Hong Kong Young Adult Couples

Optimism, one of the hottest topics in positive psychology field, is always believed that it has a mystical and fantastic power supporting people in their worst situations and defending people from the greatest difficulties. It gives people health and happiness in the quiet. Several researches have concluded that optimism has a very strong association with people’s subjective well-being (e.g. Scheier & Carver, 1992). Undoubtedly, optimism contributes to a happy life. A number of studies have even revealed that it has associations with many different positive outcomes. However, only a few studies have been concerned about its effects on people’s romantic relationships. Being in romantic relationships is a substantial phase of a complete human life. Is optimism one of the core determinants of a happy romantic relationship? Do optimists and their partners have a more satisfying romantic relationship than pessimists? Does the couple similarity in optimism matter at all? To answer these questions, this article presents a detailed investigation on the relationship between optimism and relationship satisfaction.
1.2 Dispositional Optimism

Dispositional optimism, a positive psychological trait, has been defined as the cognitive disposition to expect favorable outcomes (Scheier & Carver, 1985). To be specific, this is the conviction of expecting the best possible outcomes from any given situations. Meanwhile, Seligman (1991) has defined optimism in terms of the explanatory styles of people. Optimists believe good events are due to their internal factors, and bad events are due to external causes, and vice versa for pessimists. Regardless of either expectation or explanation approach is used, several studies have revealed optimism is significantly linked to positive psychological and physical health (e.g. Scheier et al., 1989; Scheier, Carver, & Bridges, 2001; Seligman, 1991). Pessimists, who have negative perceptions on life, were found not as healthy as optimists. Moreover, optimism directly and indirectly facilitates one’s life satisfaction, in which positive cognitive bias could influence how one perceives his (her) own life, others’ behaviors and even the world (Cummins & Nistico, 2001). In achieving goals, optimists keep gain satisfaction throughout the progress and after the achievements (Snyder, 1994). Because of its strong influences to people, dispositional optimism became one of the most outstanding personality factors keeping researchers continuously examine.

There are several instruments invented to measure optimism. The Attributional
Style Questionnaire (ASQ; Peterson et al., 1982), based on the explanatory style approach of optimism, measures optimism by how people rate the internality, stability, and globality of their good and bad events. Apart from it, the Life Orientation Test (Scheier & Carver, 1985), an inventory measuring optimism with the future-oriented definition, focuses on how people expect positive outcomes. Although the LOT is widely used in optimism studies, different views on its construct of optimism, whether it is unidimensional or multidimensional, do exist (e.g. Marshall and Lang, 1990). Nevertheless, by examining the dimensionality of the Life Orientation Test (LOT) in Hong Kong Chinese, Lai (1997) revealed that the idea of unidimensionality is more favorable.

1.3 Romantic Relationships and Relationship Satisfaction

Romantic relationships are an integral part of people’s live. It can affect people’s lives in a number of ways. If adolescences lack romantic relationships in their lives, they could build a negative self-appraisal, feel inadequate or rejected, and lead to later adult adjustment problems (Bagwell, Schmidt, Newcomb & Bukowski, 2001). Even if people are involved in a relationship, it could also be problems if both partners are not getting along well, like having conflicts frequently and not feeling care from the partners. A number of studies concluded that good quality of
romantic relationships is contributed to a high level of subjective well-being (e.g. Kamp Dush & Amato, 2005). Since the relationship quality is so important for people’s lives, it is always the focus of psychological and relationship researchers. The quality is usually evaluated from both partners’ relationship satisfactions. The Relationship Assessment Scale (RAS), created by Hendrick (1988), is one of the popular instruments measuring relationship satisfaction. Many previous researches exhibited that the relationship satisfaction could be affected by different variables.

1.4 Factors Affecting Relationship Satisfaction

Undeniably, there are plenty of factors contributing to relationship satisfaction. These factors could be about people’s past or present experience (e.g. number of past love experiences), personality characteristics, values and beliefs, or interpersonal issues (e.g. communications).

About the love biography, the duration of the relationship was found to be associated with the relationship satisfaction. Levinger and his colleagues (1979) suggested that relationship satisfaction is a determinant of relationship stability based on the interdependence theory (Kelley & Thibaut, 1978). And, Sacher and Fine (1996) showed that the long-term relationship caused high relationship satisfaction, especially in females as they may be more invested in their
relationships than males by time. Apart from the current relationship status, previous relationships could also affect people emotionally and cognitively. People keep suppressing the negative thoughts of previous relationships could negatively affect the present relationship (Wegner & Gold, 1995). The Love Relationships Biography (LRB; Hendrick & Hendrick, 1991) was made to comprehend people’s love and relationship histories. In fact, other experiences irrelevant to relationship experiences could also have an impact on the quality of romantic relationship, like attachment styles (Bartholomew, 1990).

In addition to personal history, personality is another critical factor determining relationship satisfaction. By the intrapersonal approach, personality attributes involved in marriage help shaping the relationship quality (Kelly & Conley, 1987). Within Big Five personality traits, emotional stability, agreeableness and conscientiousness could significantly affect the relationship satisfaction (Heller, Watson & Ilies, 2004). Meanwhile, neuroticism was found related to marital dissatisfaction (Russell & Wells, 1994). Dispositional optimism, found negatively related with neuroticism by Darvill and Johnson (1991), was further discovered that it could predict high relationship satisfaction and reduce the chances of relationship dissolution (Helgeson, 1994; Murray & Holmes, 1997). The association of optimism and relationship satisfaction were particularly explained in paragraphs later.
Besides intrapersonal issues, the effects on relationship satisfaction by the interpersonal variables could not be neglected too. Different love styles within couples contribute to different levels of relationship satisfaction. The three key factors in the triangular theory of love: intimacy, passion and commitment, both contribute to relationship satisfaction (Hendrick, 1981; Sternberg, 1986). High relationship satisfaction was found in passionate love and selfless love (Frazier & Esterly, 1990). Also, trust, communication and self-disclosure are essential in maintaining relationship satisfaction (Parks & Adelman, 1983; Hendrick, 1981). These elements help resolve relationship conflicts, enhance the closeness and hence make relationship longer lasting and more satisfying. Last but not least, the similarity of partners was also established that it is closely related to relationship satisfaction. By Gonzaga et al. (2007), “being similar to a partner at a moment in time, or converging toward a partner across time, seems to have positive effects on relationship functioning”. In recent years, there is a rise of researchers’ interests in understand how couple similarity is related to relationship satisfaction.

1.5 Optimism and Relationship Satisfaction

As stated previously, optimism is associated with relationship satisfaction. Studies have found that optimists’ relationships are less likely breaking up, and
optimists enjoy greater relationship satisfaction in romantic relationships (e.g. Abend & Williamson, 2002; Srivastava et al. 2006). Nevertheless, the behind mechanisms are still under investigation. Possible ways were shown in following.

From popular views, the correlation is directly formed by the actual behaviours (especially during conflicts with partners) and thoughts of the optimists (Assad, Donnellan & Conger, 2007). According to the behavioral self-regulation model proposed by Scheier and Carver (1988), while people are facing difficulties, optimism helps sustain goal attainment behaviors. An expectancy-value model (value of the goal refers to its desirability to the individual; expectancy refers to beliefs about the attainability of the goal) also explained similar ideas (Srivastava & Angelo, 2009). As optimists have a generalized positive expectancy that facilitates the pursuit of goals in facing obstacles, during the relationship conflicts, they will expect conflicts could be resolved successfully. Withdrawal from conflicts is thought to largely harm the relationship. Instead of withdrawal, optimists will solve the problems in more flexible, constructive and cooperative manners with partners, which enhances the satisfaction.

Thoughts inside optimists’ minds could directly influence the relationship satisfaction as well. The positive illusions inside optimists might sometimes unrealistically raise or exaggerate their partners’ positive images (like “My partner is
really good. I feel so satisfied with my partners in all dimensions”) or the beauty of their romantic relationships (Murray & Holmes, 1997). Proper positive illusions are adaptive to maintain a good romantic relationship. But too much or too unrealistically optimistic beliefs might lead to increased tangible disappointments and then harm the relationship in return. By Fowers, Lyons, and Montel (1996), positive marital illusions were found to be correlated with marital satisfaction. Nonetheless, it should be noticed that in their finding, positive illusions were not the same with optimism, and actually they were more strongly correlated with relationship satisfaction instead.

Aside from the above directive approaches, relationship satisfaction is also thought to be increased by optimism through indirect paths. Optimists are perceived as more favorable and likeable than pessimists (Carver, Kus, & Scheier, 1994; Helweg-Larsen, Sadeghian, & Webb, 2002). Optimism is socially desirable, so optimists tend to be liked by others. As a result, the large social network benefits optimists to receive more support from people during his difficulties. Likewise, optimists’ partners could be more willing to offer support to them. Thus, they become more satisfied with their lives and their romantic relationships. Therefore, it could be concluded that the actual support from optimists’ partners role as the mediator to mediate the effect of optimism on relationship satisfaction.
Despite the above conclusion, Srivastaya and his colleagues (2006) evaluated that the effects of optimism on relationship satisfaction are in fact mediated by the optimists’ perceived support. In romantic relationships, optimism influence how individuals attend to and interpret others’ behaviours and intentions in a positive way. Indeed, the actual support from optimists’ partners is not necessarily equal to and even highly less than the optimists’ perceived support from their partners (Srivastav, McGongal, Richards, Butler & Gross. 2006; Vollmann & Antoniw, 2007). Optimists tend to view their partners more supportive. Fortunately, the perceived support, even the amount is not as true as optimists believe, does benefit their relationships as well as the actual support. Perceived support lets optimists feel that their relationship facilitates their personal and collective goals (Kaplan & Maddux, 2002). Therefore, how optimism boost the satisfaction might be due to the mediation effect of perceived support. In views of the conclusions from all these studies, in this present study, it is predicted that for people in the relationships, optimism is positively correlated with the relationship satisfaction.

Besides optimists’ own relationship satisfaction, the optimism also benefits their partners’ relationship satisfaction magically. In fact, relationship satisfactions of both partners within couples are nonindependent. It means that the two relationship satisfaction scores of the two partners within the couple are more
similar to one another than are two scores from two people who are not member of the same couple (Kenny, Kashy & Cook, 2006). This phenomenon happened because a partner effect exists within the couple. Most importantly, this effect could be observed and explained.

With regard to the expectancy-value framework elaborated previously, the optimists’ partners also engage in the same constructive behaviors as optimists during conflicts, which means their partners will reciprocate the flexible engagement in problem-solving (Srivastava & Angelo, 2009). So, regardless of the optimism level of these partners, they are benefited from the problem-solving process and feel satisfied after resolutions as well as the optimists do. In addition, although the support perceived in partners of optimists is not exaggerated and could not yield a correlation with relationship satisfaction, partners of optimists could feel more satisfied with their relationship due to the higher relationship satisfaction of their optimistic partners (Vollmann & Antoniw, 2007). In view of this partner effect, to clarify our concept clearer, the effect of individuals’ own optimism on their relationship satisfaction is therefore assigned with a more specific name: the actor effect of optimism on relationship satisfaction. Moreover, in this present study, it is hypothesized that both the actor and partner effects are existing in optimism determining the relationship satisfaction. Specifically speaking, in the romantic
relationship, one’s optimism could contribute to his (her) relationship satisfaction and his (her) partners’ relationship satisfaction simultaneously. About the partner effect, it could be examined by the Actor-Partner Interdependence Model (APIM; Kenny, Kashy & Cook, 2006) explained in the methodology.

1.6 Couple Similarity and Relationship Satisfaction

With regard to the similarity of partners within couples, it is always said that people who are similar may be more attracted to one another. The couple similarity could across a variety of different areas. For example, Senchak and Leonard (1992) found there was a trend for similarity in the attachment styles of the partners. Secure people prefer secure people rather than insecure people as their partners. On the other hand, insecure people are more likely to pair up with each other. Most importantly, many recent findings suggested that the couple similarity is associated with the martial and relationship satisfaction.

Regarding the similarity in personality traits, Gonzaga and his colleagues (2007) suggested that people with more similar personalities share more similar emotional experiences during interaction, and these similar emotional experiences can facilitate a successful interaction. This explained the association between couple similarity and relationship success. Besides the findings of Gonzaga and his
colleagues, the couple similarity in personalities, using Big Five Personality Traits, was further found to explain a few variances in relationship satisfaction (Dyrenforth, Kashy, Donnellan & Lucas, 2010). In Gaunt’s study (2006), the couple similarity in gendered personality traits (masculinity and femininity) and religiosity yield significant association with the marital satisfaction. Moreover, marital satisfaction was shown to be dependent on both self, partner characteristics, and couple’s profile shape similarity for both personality and value domains (Luo & Klohnen, 2005; Luo et al., 2008). Nevertheless, there were also some researches revealing that the association between couple similarity and relationship satisfaction was not significant (e.g. Gattis, Berns, Simpson & Christensen, 2004; Donnellan, Assad, Robins & Conger, 2007). In spite of these results, the couple similarity is still worth for investigation again.

Dispositional optimism is one big personality trait. Comparing it with Big Five Personality Traits, extraversion has been found correlated with optimism, while negatively related with neuroticism (Darvill & Johnson, 1991; Eysenck, 1970). In light of the results of some studies concluding that there was an association between couple similarity for personality domains and the relationship satisfaction, it could be questioned whether the similarity in optimism within couples could also yield a similar result. For the close friendships, in a research conducted by Geers, Reilley
and Dember (1998), a hypothesis that pessimists have pessimistic friends and optimists have optimistic friends was investigated. Although the study only yielded significant correlations in pairs of male friends, it could be still interesting to examine whether the optimism levels of both partners in a couple are similar or moderately correlated, and find out the truth of our core doubt: whether this couple similarity is correlated with the relationship satisfaction. For example, in an extreme case, is it possible that both the pessimistic partners can be actually satisfied with their relationship in certain degrees as both partners are so much alike and can get along well? Oppositely, if the partners have a great difference in their optimism levels, would this negatively affect their relationship satisfaction?

A research having a similar hypothesis had been conducted once (Dicke, 1997). The statistic analysis method used in Dicke’s study was using categorical grouping, which classified participants into high optimism group and low optimism group, followed by a factorial ANOVA analysis. Disappointingly, the result was unlike the expectation. In fact, apart from this analysis method, in order to computing the similarity score, most previous studies have mainly adopted one of two different kinds of similarity coefficients: difference scores and profile correlations (Dyrenforth, Kashy, Donnellan & Lucas, 2010). The former is simply taking the absolute difference value between both partner’s scores on the traits to
provide an overall index of personality discrepancy in terms of the difference in trait level between partners. The latter uses correlations to capture similarity in the configuration of personality traits across dyad members, and therefore index how well the dyad members “match” across a set of personality traits. In this present study, the difference score approach was chosen to use to compute the similarity coefficient. In the methodology, the calculating method would be fully elaborated. In sum, based on several studies, it is believed that in romantic relationship, there is a similarity effect of optimism within couples on the relationship satisfaction, in addition to the actor and partner effects. Thus, in this present study, it is hypothesized that the couple similarity in optimism is associated with the relationship satisfaction, and the variances of relationship satisfaction could be predicted by this couple similarity.

### 1.7 Conclusion and Formulation of Hypotheses

Through detailed literature reviews, it was believed that the association between optimism and relationship satisfaction does exist. In the actor approach, optimism was investigated to influence the relationship satisfaction through optimists’ constructive behaviors in resolving relationship conflict, their positive illusions on their partners and relationship, their actual support from people in their
large social network and their perceived support on their partners. In the partner approach, since optimists and their partners share the same reality, and both engage in the constructive problem-solving behaviors, optimists’ partners are also benefited from the optimism. Next, the couple similarity in optimism might share similar emotional experience during their interaction, which facilitates their relationship.

In light of the above conclusion, this present study was designed to investigate the three core effects of optimism on relationship satisfaction in Hong Kong Chinese young adult couples: the actor effect, the partner effect and the similarity effect. The hypotheses in this study were formulated and stated in below:

\( H_1: \) In the romantic relationship, individuals’ optimism is positively correlated with their own relationship satisfaction;

\( H_2: \) Individuals’ own optimism could partially predict their own relationship satisfaction (the actor effect);

\( H_3: \) Individuals’ own optimism could partially predict their partners’ relationship satisfaction (the partner effect);

\( H_4: \) The couple similarity in optimism could partially predict the individuals’ relationship satisfaction (the similarity effect).
Methodology

2.1 Participants

A convenient sample of 78 heterosexual couples of Hong Kong Chinese young adults with ages ranging from 20 to 31 (m = 22.15, N = 150, SD = 1.65) voluntarily participated in the present study. The mean ages of male and female participants were 22 (N = 75, SD = 2.00) and 21 (N = 75, SD = .98) respectively. Of all participants, 82.7% received education of bachelor degree or above, and 14.1% received education of diploma or associate degree. About half of the participants (51.3%) were from City University of Hong Kong, while 41.5% were from other local and foreign universities.

Briefly speaking, about their romantic relationships biography, 79.5% participants admitted they were being in love deeply. Three quarters of participants (75.7%) had their relationships lasting at least three months. Also around three forth (76.3%) expected their relationships would last forever. In addition, 66% participants had previous romantic relationships. Most participants (89.1%) were not living with their partners. One forth of participants (25.6%) said their relationships were sexual.

2.2 Materials
The questionnaire (Appendix A) was separated into four main parts: The first three included Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994), Love Relationships Biography (LRB; Hendrick & Hendrick, 1991) and Relationship Assessment Scale (RAS; Hendrick, 1988), which measured dispositional optimism, love relationships biography and relationship satisfaction respectively. The last part was personal demographic information requiring participants to indicate their personal background (like gender, age and education level). Besides, an identification number was assigned on each questionnaire for matching information from the same couples.

The Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994) is an inventory used for measuring dispositional optimism. LOT-R was revised from The Life Orientation Test (LOT; Scheier & Carver, 1985) for focusing more on outcome expectations and being balanced in terms of positively worded versus negatively worded items. LOT-R includes 10 items with a five-point Liken scale ranging from zero (strongly disagree) to four (strongly agree), four of which are filler items. Of the six scored items, three are worded in positive direction (e.g. “In uncertain times, I usually expect the best”), and another three are negatively worded items (e.g. “I rarely count on good things happening to me”), which reverse scoring is needed. These six item scores are summed to yield the overall optimism score.
ranging from zero to 24, with higher scores indicating greater optimism. This inventory has yielded good internal consistency (Cronbach’s alpha = .78) and consistently good test-retest reliability. For the reliability statistics of this present sample, there was a Cronbach’s alpha of .58 exhibiting an acceptable internal consistency.

The Love Relationships Biography (LRB; Hendrick & Hendrick, 1991) is an inventory to investigate current love status of participants and their prior love history. There are totally 16 items, but first item, which is related to marital status, was removed for this study as participants were assumed to have never married. All of the items are multiple choice questions. Most are yes-no questions with ordinal choices (e.g. “Are you currently in a relationship? If ‘Yes’, how long? (A) No, (B) Yes, one month or less, (C) Yes, one to three months, (D) Yes, three months to one year, (E) Yes, over one year”), and a few are simply yes-no questions (e.g. “Have you fallen out of love within the past few months? (A) No, (B) Yes).

The Relationship Assessment Scale (RAS; Hendrick, 1988) is a measure of relationship satisfaction. It contains seven items with a five-point Liken scale ranging from one to five that deals with a single factor. Five of the items have higher scoring with more positive answers (e.g. “How well does your partner meet your needs? 1 = poorly, 5 = extremely well”), while two are reverse coded (e.g. “How
many problems are there in your relationship? 1 = very few, 5 = very many), which reverse scoring are needed. The overall relationship satisfaction score is the mean of these scores, with higher scores representing higher relationship satisfaction. It has demonstrated good internal reliability also (Cronbach’s alpha = .86), with item-total correlations ranging from .57 to .76. The test-retest reliability was found to be .85 (Hendrick, Dicke, & Hendrick, 1998). In this present sample, Cronbach’s alpha was found to be .85, which was closed to the original examination.

2.3 Procedures

Participants who were currently in a romantic relationship were invited to take part in this study and complete a self-administered questionnaire. The invitations were forwarded to their love partners by participants themselves or the researcher. The purpose of the study was described to participants first. Also, consents in written form (Appendix B), which assured all the information they provided were anonymous, confidential and used for research purposes only, were obtained from participants before they complete the questionnaires. Participating couples then came filling questionnaires together. Or, participants took one more set of materials, forwarded it to their partners for them to complete at quiet places, and later returned it to the researcher. Participants were instructed explicitly not to
discuss the questionnaire items with their partners or refer their partner’s answers. And participants were given help by the researcher if they have problems about the questions insides.

2.4 Statistic Analyses

Actor-Partner Interdependence Model

Actor-Partner Interdependence Model (APIM; Kenny, Kashy & Cook, 2006) were used to test the actor and partner effects of optimism to relationship satisfaction in this study. APIM is a model of interpersonal influence, which suggests that the attributes of both partners in a dyad are associated with each individual’s outcome. In this model, ideas of actor effects and partner effects are brought to investigate the interpersonal influence in dyads. An actor effect occurs when a person’s score on a predictor variable affects that same person’s score on an outcome variable; while a partner effect occurs when a person’s score on a predictor variable affects his or her partner’s score on an outcome variable (Kenny, Kashy & Cook, 2006).

The APIM is increasingly being used in the social sciences, especially in romantic relationships, as it was acknowledged one partner’s attributes and behaviors can affect the other partner’s outcomes. In this current context, actor effects capture the associations between an individual’s optimistic level and his or
her own level of relationship satisfaction; partner effects capture the association between an individual’s optimistic level and his or her partner’s level of relationship satisfaction.

In the APIM, each couple was viewed as a single data unit called dyad. Prior to this dyadic data analysis, the data was organized in dyad structure, which one couple (dyad) occupied one record in the file. This meant, for a couple, all male partner’s data (e.g. relationship satisfaction) and female partner’s data were packed together in one row with specific naming (e.g. m_ras; f_ras). Therefore, each record contains two measurements of the outcome variable (relationship satisfaction), one for the male partner (m_ras) and another for the female partner (f_ras). The optimistic scores of participants were considered as a mixed independent variable varying both between and within dyads, which meant it can vary on average from dyad to dyad, and at the same time vary from person to person within each dyad. Hence, two sources of variation could be characterized: the between-dyads source (variation in the dyad means) and the within-dyads source (variation in the deviations of each participant’s optimistic score from the dyad mean).

The pooled regression approach to the APIM was adopted in this study with the use of SPSS 17.0. Based on the above two sources of variation, two regressions were computed: The between-dyads regression, having two variables predicting the
dyad average on relationship satisfaction (ras_avg), including the dyad average on optimistic level (lotr_avg) and the dyad average on the optimism-by-gender interaction (inter_avg); The within-dyads regression with no intercept, having three variables predicting the dyad difference in relationship satisfaction (ras_diff), including the dyad difference in optimistic level (lotr_diff), the dyad difference in gender (gender_diff) and the dyad difference in the optimism-by-gender interaction (inter_diff). Their equations were listed below:

Between-dyads regression:

\[ ras_{avg} = b_0 + b_{bl} (lotr_{avg}) + b_{bi} (inter_{avg}) + E_b \]

Within-dyads regression:

\[ ras_{diff} = b_0 + b_{wl} (lotr_{diff}) + b_{wg} (gender_{diff}) + b_{wi} (inter_{diff}) + E_w \]

The actor and partner effects were then estimated from the unstandardized regression coefficients derived from these two regressions (Kenny, 1996):

Actor effect: \( (b_{bl} + b_{wl})/2 \)

Partner effect: \( (b_{bl} - b_{wl})/2 \)

Finally, to estimate the significances of these effects, they were divided by the pooled standard error to yield a t-test with the calculated degrees of freedom as following:

\[ \text{Pooled standard error} = \sqrt{\frac{S_{bl}^2 + S_{wl}^2}{4}} \]
To estimate the actor and partner effects of the optimism-by-gender interaction, the same procedures were used with $b_{bi}$ and $b_{wi}$ instead. It should be noticed that this pooled-regression method for the APIM must be based on assumption that the males and females in sample have the same variance in their relationship satisfaction score.

Extracting Controlling Variables from the Love Relationships Biography

With regard to the Love Relationships Biography (LRB), based on the categorical coding in each question item, One-Way ANOVA for each item, putting optimism and relationship satisfaction as the dependent variables separately, was conducted. It aimed at searching one or more meaningful independent variables which could predict the relationship satisfaction and at the same time did not overlap the effect of optimism. These variables would then be extracted as controlling variables to enter into following analyses examining the net effect of optimism on relationship satisfaction to yield additional information and validity to the study.

Dummy Variable Coding

Since items in LRB were categorical coding, it was necessary to conduct the dummy variable coding in order for these items to enter regression for analysis. In
this type of coding, one group is considered to be the reference group, and new variables are created to identify which condition the other participants are in (Miles & Shevlin, 2001). If there are three groups, two dummy variables are needed to be created. Dummy variables are usually dichotomous (either one or zero). Using regression with dummy variables or using One-Way ANOVA would yield the equal result, but the former has an advantage that multiple regression analysis could be performed to have a more complicated analysis.

Multiple Regression Analysis Examining Similarity Effect of Optimism within Couples on Relationship Satisfaction

Prior to this analysis, the dataset was reorganized in pairwise structure, which each participant occupied one data unit, unlike the dyad structure. In this structure, each participant’s partner’s data was copied into the participant’s data unit, which means each row contained two sets of data: one for the participant; and one for his (her) partners.

In order to examine the similarity of optimism within couples, the absolute difference of optimism between both partners within the couples (called dyad difference of optimism in following) was used to represent this similarity. Furthermore, the main effect of optimism on relationship satisfaction must be
controlled first to observe the net effect of the similarity. So, dyad sum of optimism of couples was calculated and representing the couple’s optimism.

After these procedures, multiple regression analysis predicting relationship satisfaction was able to be performed. Several predictors as controlled variables were sequentially entered into the regressions, including demographic information (gender and age), LAS items (using dummy variable coding) and couple’s optimism (the main effect of optimism on relationship satisfaction). Lastly the dyad difference of optimism was entered to verify the similarity effect. The effect size and $F$-value would indicate the effects’ significances.
Results

3.1 Descriptive Statistics of Optimism and Relationship Satisfaction

The descriptive statistics of the two major variables, optimism and relationship satisfaction, were shown in Table 1. Participants’ Optimism was measured by the Revised Life Orientation Test (LOT-R), while their relationship satisfaction was measured by the Relationship Assessment Scale (RAS). Of the present sample, the mean of optimism scores was found to be 14.38 (SD = 3.09), where males had a lower optimism (Mean = 13.76, SD = 3.35) than females (Mean = 15.01, SD = 2.67).

For the relationship satisfaction, there was a mean of 3.92 (SD = .684). Males had a slightly higher relationship satisfaction (Mean = 3.96, SD = .70) than females (Mean = 3.88, SD = .67).

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age</td>
<td>150</td>
<td>22.15</td>
<td>1.65</td>
</tr>
<tr>
<td>Optimism</td>
<td>156</td>
<td>14.38</td>
<td>3.09</td>
</tr>
<tr>
<td>Relationship</td>
<td>156</td>
<td>3.92</td>
<td>.684</td>
</tr>
</tbody>
</table>

a. Optimism was measured by LOT-R, ranging from 0 to 24
b. Relationship Satisfaction was measured by RAS, ranging from 1 to 5
3.2 Correlations between Optimism and Relationship Satisfaction

Pearson Correlation between optimism and relationship satisfaction was performed to examine $H_1$: In the romantic relationships, individuals’ optimism is positively correlated with their own relationship satisfaction. It was indicated that there was a significant moderate positive correlation between these two variables ($r = .35, p = .000$), which meant the higher the optimism score is, the higher the relationship satisfaction is. Nonetheless, by splitting the sample by gender, the correlation coefficients were found to be different between males and females. In males’ sample, there was a significant strong correlation ($r = .50, p = .000$). But the correlation was not significant in females ($r = .17, p = .131$), which was unexpected. The two-tailed independent $t$-test was further performed to find the gender differences in optimism and relationship satisfaction. The results showed that there was a gender difference in optimism ($t(146) = -2.59, p = .011$), which males have lower optimism, but gender difference was not existed in relationship satisfaction. Thus, $H_1$ suggesting that optimism is positively correlated to relationship satisfaction in couples was only partially supported.

3.3 Actor and Partner effects of Optimism on Relationship Satisfaction
About the actor and partner effects of optimism on relationship satisfaction, the pooled-regression approach of APIM was used, which the within-dyads regression and the between-dyads regression were pooled together to yield the results of these effects. The results were displayed in Table 2.

By performing pooled regression with optimism as the predictor, both actor effect and partner effect were found to be equally strong and significant (Actor effect: \( B = .07, t(110) = 4.25, p = .000 \); Partner effect: \( B = .07, t(110) = 4.31, p = .000 \)). Thus, both \( H_2 \) and \( H_3 \) suggesting that one’s relationship satisfaction was predicted by his (her) own optimism and also his (her) partner’s optimism were confirmed (the null hypotheses were rejected). To gain additional information, further analysis was hold to view whether a gender difference existed in these effects by performing another pooled regression with optimism-by-gender interaction as the predictor. Coherent to previous univariate ANOVA testing, the actor effect was found to be related with gender (\( B = .04, t(95) = 2.22, p = .029 \)), which illustrated that predicting relationship satisfaction by optimism was not applicable in female. In contrast, the partner effect of optimism-by-gender interaction as the predictor was not significant, meaning that no gender difference was being in partner effect of optimism on relationship satisfaction.
Table 2

Pooled-Regression Approach of APIM Examining Actor and Partner Effects of Optimism on Relationship Satisfaction

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>( B )</th>
<th>( SE )</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Within-dyads regression</strong></td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dyad difference in gender</td>
<td></td>
<td>-.29</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Dyad difference in optimism</td>
<td></td>
<td>-.00</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Dyad difference in optimism-by-gender interaction</td>
<td></td>
<td>.02</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td><strong>Between-dyads regression</strong></td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td>2.03</td>
<td>.41</td>
<td></td>
</tr>
<tr>
<td>Dyad average on optimism</td>
<td></td>
<td>.13</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>Dyad average on optimism-by-gender interaction</td>
<td></td>
<td>.05</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td><strong>Pooled regression with optimism as the predictor</strong></td>
<td>110.29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor effect</td>
<td></td>
<td>.07</td>
<td>.02</td>
<td>4.25***</td>
</tr>
<tr>
<td>Partner effect</td>
<td></td>
<td>.07</td>
<td>.02</td>
<td>4.31***</td>
</tr>
<tr>
<td><strong>Pooled regression with optimism-by-gender interaction as the predictor</strong></td>
<td>95.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actor effect</td>
<td></td>
<td>.04</td>
<td>.02</td>
<td>2.22*</td>
</tr>
<tr>
<td>Partner effect</td>
<td></td>
<td>.02</td>
<td>.02</td>
<td>0.88</td>
</tr>
</tbody>
</table>

* \( p < .05 \), *** \( p < .001 \)

a. Dependent variable: dyad difference in relationship satisfaction measured by RAS
b. Linear Regression through the origin (No intercept)
c. Male coded as 1; female coded as -1
d. Optimism measured by LOT-R
e. Dependent variable: dyad average on relationship satisfaction measured by RAS
f. Degree of freedom:

\[
\frac{(S_b^2 + S_w^2)^2}{\frac{S_b^4}{df_b} + \frac{S_w^4}{df_w}}
\]
g. Actor effect: \( (b_b + b_w)/2 \)
h. Partner effect: \( (b_b - b_w)/2 \)
i. Pooled standard error:

\[
\sqrt{\frac{S_b^2 + S_w^2}{4}}
\]
3.4 Relationships between Love Relationships Biography, Optimism and Relationship Satisfaction

One-Way ANOVA putting optimism and relationship satisfaction as the dependent variables separately, was conducted for each item in LRB. Among all 15 question items, the result of the length of the romantic relationship was appeared to be most interesting to this present study. There was a significant difference on relationship satisfaction between different groups of relationship lengths (categorized into 1. within one month, 2. one to three months, 3. three months to one years, and 4. above one year) \( (F(3,138) = 3.61, p = .015) \). A post-hoc Tukey test was performed to observe the relationship between relationship lengths and relationship satisfaction (refer to Figure 3) and a graph was plotted (refer to Figure 1). A significant difference was found between the group with length of three months to one year and the group of length of above one year (mean difference = .33, \( p = .044 \)). It suggested in a long-lasting romantic relationship, the longer the length of relationship is, the greater the relationship satisfaction is. On the contrary, the relationship length was found not significantly related to or predict the optimism, which means the relationship length and optimism were separated with each other. Therefore, in following analysis, the relationship length was added as a controlling variable to examine the net effect of optimism on relationship satisfaction.
Table 3

*Post-hoc Tukey Test Examining the Effect of the Length of Relationship on the Relationship Satisfaction*

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>The Length of Relationship</th>
<th>Mean Difference</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(I)</td>
<td>(J)</td>
<td>(I-J)</td>
<td></td>
</tr>
<tr>
<td>Relationship</td>
<td>&lt;1 month</td>
<td>1-3 months</td>
<td>.06</td>
<td>.33</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3 months - 1 yr</td>
<td>&gt;1 yr</td>
<td>-.02</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>&gt;1 yr</td>
<td>1-3 months</td>
<td>-.02</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>1-3 months</td>
<td>&lt;1 month</td>
<td>-.06</td>
<td>.33</td>
</tr>
<tr>
<td></td>
<td>3 months - 1 yr</td>
<td>&gt;1 yr</td>
<td>-.08</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>&gt;1 yr</td>
<td>1-3 months</td>
<td>-.08</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>1-3 months</td>
<td>&lt;1 month</td>
<td>-.41</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>3 months - 1 year</td>
<td>&gt;1 yr</td>
<td>-.41</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>&gt;1 yr</td>
<td>1-3 months</td>
<td>-.33*</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>1-3 months</td>
<td>&lt;1 month</td>
<td>.35</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>3 months - 1 yr</td>
<td>&gt;1 yr</td>
<td>.41</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>&gt;1 yr</td>
<td>3 months - 1 yr</td>
<td>.33*</td>
<td>.13</td>
</tr>
</tbody>
</table>

* * p < .05

*Figure 1. Graph of the mean of relationship satisfaction against categorized length of relationship.*
3.5 Similarity Effect of Optimism within Couples on Relationship Satisfaction

Examined by Multiple Regression Analysis

Multiple regression analysis predicting relationship satisfaction was performed to examine the similarity effect of optimism within couples. Several predictors as controlled variables were sequentially entered into the regressions. The results were displayed in Table 4.

Table 4

Multiple Regression Analysis Predicting Relationship Satisfaction

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$t$</td>
<td>$\beta$</td>
<td>$t$</td>
</tr>
<tr>
<td>Demographic Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Gender</td>
<td>.02</td>
<td>.21</td>
<td>.02</td>
<td>.23</td>
</tr>
<tr>
<td>2. Age</td>
<td>.10</td>
<td>1.07</td>
<td>.08</td>
<td>.95</td>
</tr>
<tr>
<td>Length of Relationship $^a$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Dummy Variable 1</td>
<td>-.09</td>
<td>-1.07</td>
<td>-.06</td>
<td>-.71</td>
</tr>
<tr>
<td>4. Dummy Variable 2</td>
<td>-.21</td>
<td>-2.43**</td>
<td>-.13</td>
<td>-1.64</td>
</tr>
<tr>
<td>5. Dummy Variable 3</td>
<td>-.22</td>
<td>-2.51**</td>
<td>-.17</td>
<td>-2.12*</td>
</tr>
<tr>
<td>Optimism in Couples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Dyad Sum of Scores</td>
<td></td>
<td></td>
<td>.38</td>
<td>4.80***</td>
</tr>
<tr>
<td>Optimism Similarity in Couples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Dyad Diff in Scores</td>
<td></td>
<td></td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>$R^2$</td>
<td>.01</td>
<td>.08</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>$F$</td>
<td>.74</td>
<td>2.36*</td>
<td>6.13***</td>
</tr>
<tr>
<td></td>
<td>$R^2$ Change</td>
<td>.07</td>
<td>.14</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>$F$ Change</td>
<td>3.42*</td>
<td>23.03***</td>
<td>.05</td>
</tr>
</tbody>
</table>

*$p < .05$, **$p < .01$, ***$p < .001$

a. Data was obtained from LRB item 8. As data was coded in categories, dummy coding was needed for entering regressions.
In Step 2, it was found that, by controlling the demographic information, there
was a significant effect of relationship length on relationship satisfaction, and it
accounted for 7% of the variance in relationship satisfaction ($R^2 = .07, F(3,134) = 3.42, p = .019)$. Next, undoubtedly, the change was dramatic when optimism in
couples entered into the regression ($R^2 = .14, F(1,133) = 23.03, p = .000$). Both
partners’ optimisms accounted for 14% of the variance in relationship satisfaction.
Meanwhile, the effect of relationship length was weakened but still yielded
significance (dummy variable 3, representing group with relationship length of three
months to one year: $\beta = -.17, t(133) = -2.12, p = .035$). Ultimately, from step 4, no
any significant effect of optimism similarity in couples on relationship satisfaction
was detected ($\beta = .02, t(132) = .23 p = .819$), and the main effect of optimism remain
significant strong ($\beta = .38, t(132) = 4.76 p = .000$). The results violated $H_4$ which
stated that the similarity of optimism between partners in couples predicted
relationship satisfaction. To verify the disappointed results, another statistical
approach with categorical grouping method was carried out impromptu and
explained in the following sections.

3.6 Descriptive Statistics with Categorical Grouping by Optimism
The present sample was split into high optimism group and low optimism group using the median of optimism score of 15.00 as the cutting point. The descriptive statistics of optimism and relationship satisfaction after sample splitting were listed in Table 5. 70 of all participants were categorized into the low optimism group with a mean of optimism of 11.67 (SD = 2.17) and a mean of relationship satisfaction of 3.73 (SD = .74). Remaining 86 participants were categorized into the high optimism group (optimism: Mean = 16.59, SD = 1.66; relationship satisfaction: Mean = 3.73, SD = .74). Particular statistics by gender could be referred to Table 5 as well. By two-tailed independent t-test, there was a significant difference on relationship satisfaction found between the high and low optimism groups (t(154) = 3.27, p = .001) The results lend further support to H₁.

Table 5

Descriptive Statistics of Optimism and Relationship Satisfaction with Categorized Grouping

<table>
<thead>
<tr>
<th>Categorized Groups</th>
<th>Optimism a</th>
<th>Relationship Satisfaction b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>Low Optimism Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>41</td>
<td>11.29</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>12.21</td>
</tr>
<tr>
<td>High Optimism Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37</td>
<td>16.49</td>
</tr>
<tr>
<td>Female</td>
<td>49</td>
<td>16.67</td>
</tr>
</tbody>
</table>
Categorized Couple Groups

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Optimism Mean</th>
<th>Optimism SD</th>
<th>Relationship Satisfaction Mean</th>
<th>Satisfaction SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Low Optimism Group</td>
<td>36</td>
<td>11.75</td>
<td>2.10</td>
<td>36</td>
<td>3.53</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>11.28</td>
<td>2.40</td>
<td>18</td>
<td>3.53</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
<td>12.22</td>
<td>1.70</td>
<td>18</td>
<td>3.52</td>
</tr>
<tr>
<td>High-Low Optimism Group</td>
<td>68</td>
<td>14.12</td>
<td>3.28</td>
<td>68</td>
<td>3.93</td>
</tr>
<tr>
<td>Male</td>
<td>34</td>
<td>13.06</td>
<td>3.48</td>
<td>34</td>
<td>3.97</td>
</tr>
<tr>
<td>Female</td>
<td>34</td>
<td>15.18</td>
<td>2.72</td>
<td>34</td>
<td>3.90</td>
</tr>
<tr>
<td>High-High Optimism Group</td>
<td>52</td>
<td>16.56</td>
<td>1.41</td>
<td>52</td>
<td>4.18</td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>16.38</td>
<td>1.58</td>
<td>26</td>
<td>4.26</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>16.73</td>
<td>1.22</td>
<td>26</td>
<td>4.11</td>
</tr>
</tbody>
</table>

a. Optimism was measured by LOT-R, ranging from 0 to 24
b. Relationship Satisfaction was measured by RAS, ranging from 1 to 5

Likewise, all participants were assigned into corresponding categorized couple groups based on both their optimism group and their partner’s optimism group. Hence, three categorized couple groups were formed: low-low ($N = 36$), high-low ($N = 68$) and high-high ($N = 52$) optimism groups. Descriptive statistics of optimism and relationship satisfaction by categorized couple grouping were also shown in Table 5. The means of optimism of low-low, high-low and high-high groups were 11.75 ($SD = 2.10$), 14.12 ($SD = 3.28$) and 16.56 ($SD = 1.41$) respectively. The means of relationship satisfaction of low-low, high-low and high-high groups were 3.53 ($SD = .68$), 3.93 ($SD = .72$) and 4.18 ($SD = .48$) respectively. Clearly, participants in
low-low and high-high groups had a less difference of optimism with their partners, while participants in high-low group had a greater difference of that. Based on this approach, $H_4$ was adjusted into: Couples with both partners in high optimism group have the greatest relationship satisfaction, followed by couples with both partners in low optimism group, while couples with both partners in different optimism groups have the least relationship satisfaction. To simplify, it was hypothesized that, among three groups, the relationship satisfaction of high-high optimism group is the greatest, while that of high-low optimism group is the lowest.

3.7 Similarity Effect of Optimism within Couples on Relationship Satisfaction by factorial ANOVA

A 2 (gender) X 4 (length of relationship) X 3(categorized couple group) factorial ANOVA was performed on the relationship satisfaction to again examine the similarity effect of optimism within couples. In this model, only the main effects of these factors were included, while their interactions were excluded because of the irrelevance to the hypotheses. The analyzed result was displayed in Table 6.

Table 6

Univariate factorial ANOVA Predicting Relationship Satisfaction by Gender, Length of Relationship and Categorized Couple Groups
The model illustrated a significant difference on relationship satisfaction ($R^2 = .17, F(6,135) = 4.44, p = .000$). The difference was only explained by categorized couple groups, but not gender and length of relationship. Categorized couple groups explained 10% of the variance in relationship satisfaction ($F(2,135) = 7.23, p = .001, \eta^2 = .010$). To examine whether the effect was as expected, the post-hoc Tukey test was performed afterwards (shown in Table 7) and a graph illustrating their relationship was plotted in Figure 2, and. It found that the relationship satisfaction of high-low group was not significantly different from that of high-high group, and was significantly larger than that of low-low group (mean difference = .47, $p = .002$).
Therefore, although categorized grouping yielded significant effect in relationship satisfaction in the model, the source was not as expected that high-low optimism group has the lowest relationship satisfaction. The result found was coherent to previous multiple regression analysis, which meant, $H_4$ was totally rejected.

Table 7

*Post-hoc Tukey Test Examining the Effect of the Categorized Couple Groups on the Relationship Satisfaction*

<table>
<thead>
<tr>
<th>Categorized Couple Groups</th>
<th>Mean Difference (I-J)</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Low Group</td>
<td>High-Low Group</td>
<td>-.47*</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>High-High Group</td>
<td>-.63*</td>
<td>.14</td>
</tr>
<tr>
<td>High-Low Group</td>
<td>Low-Low Group</td>
<td>.47*</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>High-High Group</td>
<td>-.16</td>
<td>.12</td>
</tr>
<tr>
<td>High-High Group</td>
<td>Low-Low Group</td>
<td>.63*</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>High-Low Group</td>
<td>.16</td>
<td>.12</td>
</tr>
</tbody>
</table>
Figure 2. Graph of the mean of relationship satisfaction against categorized couple groups.
Discussion

Major Findings of this Study

Fundamentally, it was evidenced that there was a very strong significant association between optimism and positive relationship satisfaction. The result was consistent with the literature. Optimism might affect the relationship satisfaction through a number of ways, like the optimists’ own constructive problem-solving behaviors in conflicts, their positive illusions, their perceived and actual support and etc.

However, a gender difference was found in the association unexpectedly. The significant correlation existed only in males, but not in females. This might suggest that while males’ relationship satisfaction is highly predicted by their optimism level, females’ satisfaction might be predicted by factors other than their optimism level contrarily. In the study conducted by Mirfardi, Edalati and Redzuan (2010), females’ marital satisfaction was related to many different variables, like their age, their education level, their number of children and etc. Besides, it was revealed that women’s relationship satisfaction was more influenced by their partners’ relationship awareness while males did not (Acitelli, 1992). Frazier (1990) discovered that men and women differed in their relationship beliefs, and relationship experience was also found more strongly associated with relationship beliefs in women than in men.
This relationship beliefs may be somewhat related with the relationship satisfaction. In sum, as women’s degree of satisfaction was judged by more variables compared with males, the effect of optimism may become relatively small, so insignificant result was found.

The actor and partner effects examined by using APIM were found to be significant and equally strong. \( H_2 \) and \( H_3 \) were supported. Optimism plays an important role in relationship functioning. It enhances one’s relationship satisfaction and at the same time enhances his (her) partner’s relationship satisfaction. Optimists’ partners’ degree of satisfaction might be influenced by optimists’ own relationship satisfaction, optimists’ constructive behaviors and etc. Therefore, the power of optimism could not be underestimated. Not only can it benefit the optimists’ own status, but it can also benefit their surrounding people, especially their romantic partners.

Nonetheless, there was no evidence that the couple similarity of optimism could predict the relationship outcomes in these data. The significance of the absolute difference score of optimism used to represent the similarity index was terribly small in the regression analysis. \( H_4 \) was totally rejected. Similar to the studies about personality similarity and relationship satisfaction, the similarity effect was found to be generally weak (e.g. Dyreforth, Kashy, Donnellan & Lucas, 2010).
Through the categorized couple grouping approach, the results were replicated like the regression analysis. According to the results, the more optimism found in the relationship, the more satisfied the relationship partners, whether the optimism was split between the two partners, or mostly contained within one partner. Similarity in low-low optimism group did not lead the partners in this group to be more satisfied than those in high-low optimism group at all. In short, having similar optimism is not necessarily a key ingredient for happiness in romantic relationship.

By investigating the relationships of love biography with optimism and relationship satisfaction, it was found that the length of relationship was also one of the predictor of relationship satisfaction. In a long-term romantic relationship, the longer the relationship is, the more satisfying relationship is. This result showed consistence with the previous studies (Levinger et al., 1979; Sacher & Fine, 1996). In contrast, some other factors were found to be unrelated to relationship satisfaction, like whether it is sexual relationship, whether they are living together and etc. Nonetheless, these insignificances are worth to be further examined.

**Limitations and Suggested Improvements**

The sample size is a big limitation in this study. The results analyzed from 78 couples were actually not sufficient to be generalized to the whole young adult
couple population. The problem was even enlarged when the sample was split into different categorized groups (e.g. only 18 couples representing the low-low group). Also, it was recommended to conduct a more systematic sampling method instead of convenient sampling to screen out the imbalance in participants’ backgrounds. In this study, most participants were receiving tertiary education or above. Studies showed that there was a positive significant relationship between years of education and marital satisfaction (Mirfardi, Edalati and Redzuan, 2010; Alder, 2010). Therefore, the study could be improved by enlarging the sample size to minimize the sampling errors and bias, and hence generate more confident results.

There were also errors existing in data collection. In an attempt to maintain a good number of participants, the questionnaires were allowed for participants to complete in places without supervision to make the collection process friendlier. The most problematic issue concerned was the insufficient control of the environment for questionnaire taking. Even partners were instructed not to discuss the questionnaire issue with each other, it was still risky that they answered some questions dishonestly (like exaggerating their positive feelings on their relationships). To avoid this happening, most straightforward solution would be providing a quiet venue under surveillance and with clear instructions for participants. If not, giving
envelopes to participants might also reduce the chances of answer manipulation as information provided becomes more secured and confidential.

In addition, deficiency in English reading ability did exist in some participants, which leaded harm to the validity of inventories. To enhance the readability, LOT-R could be replaced by the Chinese Revised Life Orientation Test (CRLOT), which is an adapted Chinese version of LOT-R (Lai, Cheung, Lee & Yu, 1998). CRLOT also has a good reliability ($\alpha = .73$) (Chan, Lai & Wong, 2006). The language problem was also found in the LRB. Participants confused “in love” with “in relationship”. Hence, question items including these wordings might become invalid for the study. So, Chinese translation for this measurement was needed.

Apart from the linguistic problems, the multiple-choices questioning in the LRB caused loss in data. Besides, One-Way ANOVA and dummy variable coding must be taken, which made the analyses more complicated. To improve, it was suggested to give up using the LRB. Similar questions written in Chinese should be installed. And it would be more appropriate to obtain the exact data (i.e. in interval or ratio scale) so as to get data with a higher level of measurement.

With regard to the statistic analyses used, there were some limitations too. First of all, for the Actor-Partner Interdependence Model (APIM), the pooled-regression approach used in the present study was complex and inconvenient. And most
importantly, it has a drawback that the men and women in the sample must be assumed to have the same variance in their scores. From Kenny, Kashy and Cook (2006), alternative methods could be the multilevel modeling (MLM) and the structural equation model (SEM). Besides, with SAS (another statistic software), the results calculated would be more informative as it could further give the proportions of variance explained by the actor and partner effects.

Secondly, computing the similarity coefficient in the present study also had its limitations. The computing method was not as standard as most previous studies conducted. Most of the updated studies chose to use the more advanced profile correlations approach. In fact, these previous studies usually considered a number of variables contributing to the similarity effect, which meant they simultaneously examine the couple similarity for different domains unlike this present studies. To make analyses more convenient and provide more information about similarity that could not be obtained from difference scores, profile correlations were used by reflecting similarity over the entire profile of scores. To this present study, actually more variables could be involved into investigating the similarity effect instead of just the optimism, like the love biography already found from the study (e.g. whether similar in number of love experiences could yield more satisfaction in relationship) or the background information as said in the beginning. For future
study direction, this idea could be included and the profile correlations approach could be used.

Besides, even if not introducing more factors to involve in the similarity, for this study, more factors should be controlled before the analyses. Although optimism could predict the relationship satisfaction, there were still several factors influencing relationship satisfaction, for instance, the Big Five Personality Traits, attachment styles and etc. By controlling more variables, the true power of relationship satisfaction could be observed more clearly. Moreover, the results about the three different effects examined could then be more reliable and accurate.

Implications of the study

With regard to the practical implications, as the evidence of the significant associations between positive relationship satisfaction, individuals’ optimism level and their partners’ optimism level found were so robust in this study, optimistic thinking is recommended and promoted to every couple. More awareness on their optimism could facilitate their relationship quality. Besides, psychologist and counselors could give more advices related to optimism for couples with dissatisfying relationships. Introducing optimistic cognitive thinking into these couples may effectively heal their unhappiness of their relationships. Constructive
problem-solving skills could be taught to them in order for them to peacefully resolve their conflicts, which lead to more satisfying relationship.

**Future Research Directions**

In addition to practical implications, this study also gave insight for future research directions. There were some suggested future directions for researches in this domain. The further investigation could focus on their mediators or moderators. Except for the perceived or actual support or the positive illusions mentioned in literature, the idea could be extended to other aspects, like the relationship length (which was found having an association with relationship satisfaction) or other interesting factors. With regard to the relationship length, dedicated study might be required to find the answers about if it is the cause or the consequence of a happy relationship, and if it is related to optimism also. About the similarity effect, even it was found insignificant, clarification of the most appropriate index of computing similarity must be taken through further studies, as contradictory evidences based on different indices still exist.

Moreover, cross-cultural differences should not be neglected too. This study only included Hong Kong Chinese in the sample. From a cross-cultural comparison conducted by Yum and Hara (2006), there was a cultural difference of factors
affecting relationship qualities (e.g. the breadth and depth of self-disclosure) between Eastern and Western people. It could be believed that optimism also yield a cultural difference. In order to generalize into a greater population or specify the cultural differences, cross-cultural researches related to the same hypotheses were recommended.

Asides from these, the investigation of relationship between optimism and romantic relationships could go broader, like between optimists and pessimists, who would be more likely to have extramarital affairs, or who would be more dependent on their partners. These interesting aspects could probably give more insights of future researches in this field.

Conclusions

To conclude, it appears that there was a significant robust association between optimism and relationship satisfaction. Individuals’ optimism could partially predict their own relationship satisfaction and their partner’s relationship satisfaction as well. The actor and partner effects of optimism are found to be very impressive, which supports that optimism plays an important role in relationship functioning. Generally speaking, not only in the individual aspect, optimism can benefit people in the relationship aspect also. Additionally, the relationship length was also found to be
able to predict relationship satisfaction. In contrast, the similarity effect predicting relationship outcomes based on the difference score approach was insignificant, which means that having similar optimism levels is not necessarily a key ingredient for a satisfying romantic relationship. Lastly, though the presence of limitations did exist in the study, it provided insights related to the domain of optimism and romantic relationship. Hopefully it could provoke more researches to find out more specific answers underlying their relationships.
References


Kaplan, M., & Maddux, J. E. (2002). Goals and marital satisfaction: Preceived
support for personal goals and collective efficacy for collective goals.


Appendix A - Questionnaire

Couple No._____

Part A. The Revised Life Orientation Test (LOT-R)

Using the scale below, circle the appropriate number beside each statement. Answer according to your own feelings, rather than how you think most people would answer. There are no correct or incorrect answers.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) In uncertain times, I usually expect the best</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>2) It’s easy for me to relax</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>3) If something can go wrong for me it will</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>4) I’m always optimistic about my future</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>5) I enjoy my friends a lot</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>6) It’s important for me to keep busy</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>7) I hardly ever expect things to go my way</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>8) I don’t get upset too easily</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>9) I rarely count on good things happening to me</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>10) Overall, I expect more good things to happen to me than bad</td>
<td>0 1 2 3 4</td>
<td></td>
</tr>
</tbody>
</table>

Part B. The Love Relationships Biography (LRB)

The following questions are related to your love experiences. Please read each question carefully and circle the appropriate letter according to your own experiences. There are no correct or incorrect answers.
1) At what age did you first fall in love?
   - (A) Never in love
   - (B) < age 12
   - (C) Age 12 - 14
   - (D) Age 15 - 16
   - (E) ≥Age 17

2) How many times have you been in love?
   - (A) None
   - (B) 1
   - (C) 2
   - (D) 3-5
   - (E) >5

3) Have you ever been in love with more than one person at the same time?
   - (A) No
   - (B) Yes

4) Are you in love now? If "Yes," how long?
   - (A) No
   - (B) Yes, ≤1 month
   - (C) Yes, 1-3 months
   - (D) Yes, 3 months - 1 year
   - (E) Yes, ≥1 year

5) If you are in love now, how deeply are you in love?
   - (A) Not in love now
   - (B) Slightly
   - (C) Moderately
   - (D) Deeply
   - (E) Very deeply in love

6) Have you fallen out of love within the past few months?
   - (A) No
   - (B) Yes

7) How important is romantic love to you as part of your life?
   - (A) Not important
   - (B) Slightly important
   - (C) Moderately important
   - (D) Very important
   - (E) Very important—one of the most important things in life

8) Are you currently in a relationship? If "Yes," how long?
   - (A) No
   - (B) Yes, ≤1 month
   - (C) Yes, 1-3 months
   - (D) Yes, 3 months - 1 year
   - (E) Yes, ≥1 year

9) If you are currently involved in a relationship, is your relationship a sexual relationship?
   - (A) Not in a relationship
   - (B) No, it is not sexual
   - (C) Yes, it is sexual

10) Are you in love with your relationship partner?
    - (A) Not in a relationship
    - (B) No
    - (C) Yes

11) Are you currently in love with someone in addition to or instead of your relationship partner?
    - (A) Not in a relationship
    - (B) No
    - (C) Yes
12) Do you live with your relationship partner?  
(A) Not in a relationship  (B) No  (C) Yes

13) How many previous romantic relationships have you had?  
(A) None  (B) 1  (C) 2  (D) 3  (E) ≥4

14) How many previous sexual relationships have you been involved in?  
(A) None  (B) 1  (C) 2  (D) 3  (E) ≥4

15) Have you had a relationship breakup (or divorce) within the past year?  
(A) No  (B) Yes

16) Did your parents divorce?  
(A) No  (B) Yes

17) How long do you think your current relationship will last?  
(A) It will be over within the next few months  
(B) 4-6 months  (C) 6 months - 1 year  
(D) ≥ one year, but not forever  (E) Forever

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**Part C. Relationship Assessment Scale (RAS)**

The following questions are related to your current love relationship satisfaction. Please read each question carefully. Using the scale below each question, **circle** the appropriate letter according to your own feelings. There are no correct or incorrect answers.

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1) How well does your partner meet your needs?  
(A) Poorly  (B) Average  (C) Extremely well

2) In general, how satisfied are you with your relationship?  
(A) Unsatisfied  (B) Average  (C) Extremely satisfied

3) How good is your relationship compared to most?  
(A) Poor  (B) Average  (C) Excellent
4) How often do you wish you hadn’t gotten in this relationship?

A          B          C         D          E
Never      Average    Very often

5) To what extent has your relationship met your original expectations:

A          B          C         D          E
Hardly at all Average Completely

6) How much do you love your partner?

A          B          C         D          E
Not much   Average    Very much

7) How many problems are there in your relationship?

A          B          C         D          E
Very few   Average    Very many

Part D. Personal Information

1) Gender:  □ Male  □ Female

2) Age: ____________________

3) Level of Education:
□ High Diploma / Associate Degree  □ Bachelor Degree
□ Master or above

4) Year study:
□ Year 1  □ Year 2  □ Year 3  □ Year 4 or above

5) University:
□ BU   □ CityU  □ CU  □ HKU  □ LU  □ OU
□ PolyU  □ SYU  □ UST  □ Others: ____________________

6) College / Faculty / School:
□ Arts  □ Business  □ Creative Media
□ Education  □ Humanities and Social Sciences  □ Law
□ Medicine  □ Science and Engineering  □ Others: ____________________

7) Programme study: ____________________

***This is the end of this questionnaire, thank you***
Appendix B - Consent Form

Optimism in Romantic Relationship: Predicting Relationship Satisfaction from Optimism in Hong Kong Young Adult Couples

We are year 3 psychology students in City University of Hong Kong. We are inviting you to participate in a study of predicting relationship satisfaction from optimism in Hong Kong young adult couples. If you decide to participate in the study, you will involve in this research questionnaire. Your participation is completely voluntary and you are free to refuse to enter or to withdraw from the study at any time without having to give a reason. All information collected for the purpose of study will be stored anonymously and be treated as confidential. Please feel free to ask about anything you do not understand or if you would like more information about the study, you are welcome to contact us.

Contact person: Kevin Chan Man Lok Email:

Participant Consent Form

I, the undersigned, agree to take part in the above study. I have been informed in sufficient details about the nature and purpose of the study and what I will be expected to do. I understand that I may withdraw from the study at any time. I understand that the information I provide will be kept confidential and the use of the information will be restricted to the purpose of study.

Signature: _________________________ Date: ___________________________