Brief report: Intimacy, passion, and commitment in romantic relationships—Validation of a ‘triangular love scale’ for adolescents

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Abstract

This study examined the psychometric properties of an adolescent version of the ‘triangular love scale’ (TLS), which assesses three components of romantic relationships: intimacy, passion, and commitment. Using data from 435 Dutch adolescents aged 12–18 years, we found evidence for convergent validity, showing that dimensions of intimacy, passion, and commitment were all positively correlated with relationship satisfaction and duration. Evidence was also found for divergent validity, as adolescents’ perceptions of the main (dis)advantages of being involved in romantic relationships showed a specific pattern of associations with intimacy, passion, and commitment. Finally, CFA analyses in LISREL showed that a model in which all separate questionnaire items were specified to load on three underlying, correlated factors (intimacy, passion, commitment) fit the data adequately. Overall, this measure seems appropriate for use with adolescents.

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Keywords: Validation; Triangular love scale; Adolescence; Romantic relationships

* A full-length report is available upon request from the first author.
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Introduction

Over the past decades, several measures have been developed to assess different components that make up love relationships, often referred to in the literature as ‘romantic relationships’. In the original triangular theory of love, Sternberg (1986, 1988) defined love as consisting of three components: intimacy, passion, and commitment. Intimacy refers to feelings of closeness and connectedness and represents the emotional component involved in love relationships. Passion is supposed to be a motivational component, and pertains to feelings of romance, attraction, and sexuality. Finally, commitment encompasses the decision to stay involved in a relationship, and to maintain a potential long-term relationship and represents the cognitive aspect.

Lemieux and Hale (1999, 2000, 2002) formulated a measure with only 19 items that captured these three dimensions. Although until now, this measure has been used only in convenience samples of college students or samples of married individuals, its brevity and simplicity makes it an appropriate measure to assess romantic relationships in adolescents as well. In the present study, therefore, we aimed to examine the validity of this ‘triangular love scale’ (or TLS) in a sample of Dutch adolescents. More specifically, we aim to examine the construct validity of the TLS with confirmatory factor analysis (CFA), and the convergent and divergent validity of the TLS among Dutch adolescents aged 12–18 years.

Method

Procedure and sample

All adolescents taking part in this study were students enrolled in secondary schools in the Netherlands. The questionnaires were administered in classrooms during regular school hours and no explicit refusals to participate were recorded. A total of 28 high schools were targeted in a 100-km radius from the city of Nijmegen. These schools were sent a letter of introduction and were contacted by telephone shortly thereafter. Of all schools targeted, 56% agreed to participate. If a certain school agreed to participate, the research team and school board discussed the number of classes eligible for the assessment. The sample consisted of 2425 adolescents (1216 males, 1209 females), mostly from an indigenous Dutch background (88.5%), aged 12–18 years (M age = 14.36, SD = 1.31). Of this sample, 435 adolescents (267 girls versus 168 boys) defined themselves as ‘currently going steady’.

Measures

Triangular love scale

We employed 19 items of those retained in the principal component analyses by Lemieux and Hale (1999), on the basis of significant factor loadings (see Appendix A for item list). The English questionnaire was translated into Dutch, and then back-translated into English again, to ensure equivalence of meaning. Answers could be given on a 7-point Likert scale, ranging from 1 = strongly disagree to 7 = strongly agree. Instead of the original terms my partner in the items, we used dotted lines instead and instructed adolescents to ‘mentally fill in’ the name of their
boyfriend or girlfriend. Cronbach’s α for the intimacy subscale was .87, and was .89 for the passion subscale and .80 for the commitment subscale.

*Romantic relationship duration, ‘intensity’, and satisfaction:* Adolescents indicated how long they had been going steady on a 6-point scale, ranging from 0–4 weeks (1) to 2 years or longer (6). The frequency of contact between partners outside of school hours was assessed with a 4-point scale, going from: once a month or less (1) to daily (4). Finally, adolescents’ satisfaction with their current romantic relationships was measured using three items that were adapted from Hendrick’s (1988) measure of relational satisfaction. Participants answered these items on a 4-point scale ranging from 1 = not right at all to 4 = totally right. Cronbach’s α of this measure was .63.

*Perceived (dis)advantages of romantic relationships*

Youths were given the possibility to rank order which were ‘the greatest’ of six advantages and the greatest of five disadvantages of being involved in a romantic relationship (Feiring, 1996).

**Results**

The results from an exploratory factor analysis (i.e., principal component analysis, VARIMAX rotation) indicated that the 19 items loaded on three underlying factors with a total explained variance of 69%. All items, except the first two items from the commitment subscale, loaded on the expected factors with all factor loadings exceeding .55. Next, we tried to replicate these results in a CFA procedure, using structural equations modeling with LISREL 8.30 (Jöreskog & Sörbom, 1993). The CFI and RMSEA were used as fit indices (Bentler, 1995; Browne & Cudeck, 1993). Because the variables were characterized by non-normal distributions, we also examined the Satorra–Bentler χ² index. Specifically, we tested and compared three different structural models (cf. Fletcher, Simpson, & Thomas, 2000). In the first model, we specified that all separate TLS items would load on one global, underlying factor of ‘relationship quality’. In the second model, we specified that the different TLS items would load on three latent factors of intimacy, passion, and commitment—that would not be correlated with each other. As expected, both models had a rather poor fit (Table 1). Next, in the third model the three latent factors were correlated with each other. A χ² difference test showed that this model had a significantly better fit as compared to the second model (Table 1), but the fit was not quite satisfactory yet.

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*Note:* SB χ², Satorra–Bentler χ²; df, degrees of freedom; CFI, Confirmatory Fit Index; RMSEA, root mean square error of approximation.
An examination of the separate item loadings made clear that the first two items on the commitment subscale and the sixth item of the factor passion had rather low loadings. After deleting these items from the model, fit indices attained adequate levels (Fig. 1).

Next, we examined the convergent validity of the TLS. Pearson correlations demonstrated that higher levels of intimacy, passion, and commitment were all significantly, positively associated with romantic relationship satisfaction (respectively, $r = .49, p = .001$; $r = .24, p = .001$; $r = .39, p = .001$). In addition, adolescents who were involved in relationships of longer duration and saw their partner more often outside school, perceived higher levels of intimacy (respectively, $r = .17$, $p = .01$; $r = .21$, $p = .001$) and passion (respectively, $r = .15, p = .01$; $r = .19, p = .01$) in their romantic relationships, and also reported higher levels of commitment to their partners (respectively, $r = .26, p = .001$; $r = .15, p = .01$).

Furthermore, higher levels of intimacy and commitment were positively associated with the advantage that one is able to openly share intimate feelings and thoughts with someone (respectively, $r = .23, p = .001$; $r = .15, p = .01$) and to have someone that takes care of you whenever problems arise (respectively, $r = .20, p = .001$; $r = .15, p = .01$). In addition, higher levels of intimacy and passion were also related to the advantage to be able to spend time with someone who is great fun to be with (respectively, $r = .16, p = .01$; $r = .13, p = .05$). Passion was positively related to be able to

![Diagram](image-url)
kiss or ‘make out’ \((r = .29, p = .001)\). As for the perceived disadvantages, intimacy and commitment were positively related to the disadvantage of having fights or arguments or being irritated with each other (respectively, \(r = .17, p = .01\); \(r = .20, p = .001\)). In addition, commitment was negatively associated with the disadvantage of having less freedom and having to spend much time together \((r = .20, p = .001)\). Finally, passion was positively related to the disadvantage of being jealous when one’s boyfriend or girlfriend is involved in activities with someone else from his or her opposite sex \((r = .11, p = .05)\). On the basis of the Pearson correlations described above, we concluded that the convergent validity of the TLS was satisfactory.

Discussion

The present study examined the psychometric properties of a ‘TLS’ (Lemieux & Hale, 1999, 2000), which was adapted for use with a sample of Dutch adolescents aged 12–18 years. Overall, findings from this study support the view that the TLS is a highly reliable instrument, with good convergent and divergent validity, and adequate construct validity.

Nevertheless, the instrument in its present form still seemed to contain items that did not adequately represent the content of the commitment and passion subscales. The items ‘I feel attracted to other possible boyfriends or girlfriends’ and ‘I feel attracted to a single lifestyle’ in the commitment scale and the item ‘Sex is important in our relationship’ in the passion scale did not have high loadings in the multivariate CFA analysis. An explanation for this finding is that these items were phrased somewhat differently from the other items—without the dotted lines where respondents could ‘mentally’ fill in their partner’s name. Maybe, the different types of items elicit different types of responses from adolescents. However, these items might be only appropriate to measure commitment and passion in an adult population. Adolescents could be sexually aroused by their partner’s presence, but not necessarily have to be involved in sexual activities, whereas sex is more important in adult romantic relationships. Similarly, feeling attracted to a single lifestyle and feeling attracted to other possible partners is not necessarily at odds with being committed to one’s present relationship.

In conclusion, the present study clearly demonstrated that the TLS is a highly reliable instrument with good convergent and divergent validity, and adequate construct validity. The instrument is fit for more extensive use with adolescents, although future research will have to account for some minor adaptations in some item phrasings for the commitment and passion scales (items 13, 14 and 15, see Appendix A).

Appendix A

The triangular love scale (back-translated items)

(Instruction): Please ‘mentally’ fill in the name of your boyfriend or girlfriend in the statements printed below.

01. \(\Box\) share personal information with each other. (intimacy-1)
02. I can tell everything to \(\Box\) . (intimacy-2)
03. \(\Box\) and I tell each other about private thoughts and feelings. (intimacy-3)
04. Some things I can only tell to __________ and to no-one else. (intimacy-4)
05. __________ understands how I feel. (intimacy-5)
06. __________ think the same about a lot of things. (intimacy-6)
07. Most of the time I feel very close to __________ . (intimacy-7)
08. I feel a strong attraction towards __________ . (passion-1)
09. I often feel aroused when __________ is with me. (passion-2)
10. __________ and I are very passionate together. (passion-3)
11. I find __________ sexually attractive. (passion-4)
12. __________ and I show each other a lot of affection. (passion-5)
13. Sex is important in our relationship. (passion-6)
14. I feel attracted to a single’s lifestyle. (commitment-1)
15. I feel attracted to other possible boyfriends/girlfriends. (commitment-2)
16. I see my relationship with __________ as never-ending. (commitment-3)
17. I will probably have another love relationship later in my life. (commitment-4)
18. I think that my relationship with __________ will last forever. (commitment-5)
19. I would rather be with __________ than with anyone else. (commitment-6)

References