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FACTORS INFLUENCING THE PERCEIVED RELATIONSHIP SATISFACTION AND ITS
RELATION TO THE THREE LOVE COMPONENTS OF STERNBERG'S TRIANGULAR
LOVE THEORY IN ESTONIAN WOMEN AND MEN IN LONG-TERM HETEROSEXUAL
RELATIONSHIPS

Master's thesis

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Factors Influencing the Perceived Relationship Satisfaction and its Relation to the Three Love Components of Sternberg's Triangular Love Theory in Estonian Women and Men in Long-Term Heterosexual Relationships

Abstract

This master's thesis investigated the connection between perceived relationship satisfaction and partner similarity, partner characteristics, and the factors influencing the levels of the three components of Sternberg's Triangular Theory of Love—intimacy, passion, and commitment—in Estonian men and women in long-term heterosexual relationships. The study aimed to determine if a higher similarity between romantic partners correlates with greater relationship satisfaction. Partner similarity was assessed through characteristics such as perceived physical attractiveness, kindness, health, and resources of both oneself and one's partner, as well as differences in age and education. Additionally, the study aimed to identify predictors of higher levels of intimacy, passion, and commitment, which are pertinent to perceived relationship satisfaction. The sample comprised 151 participants: 22 (14.6%) males and 129 (85.4%) females, aged 19-80 years. Results showed that partner similarity did not significantly correlate with relationship satisfaction. However, mate physical attractiveness and kindness were significantly correlated with satisfaction, while differences in education negatively impacted satisfaction. Regression analyses indicated that higher levels of intimacy were predicted by mate kindness and relationship length; commitment was positively predicted by mate physical attractiveness, kindness, and relationship length; passion was positively influenced by mate physical attractiveness and kindness. Education difference negatively affected the levels of all three components of love.

Keywords: relationship satisfaction, Sternberg's Triangular Theory of Love, partner similarity, Estonian heterosexual couples

Tegurid, mis mõjutavad tajutud suhtega rahulolu ja selle seos Sternbergi kolmnurkse armastusteooria kolme armastuskomponendiga Eesti naiste ja meeste heteroseksuaalsetes püsisuhetes

Kokkuvõte

Käesolev magistritöö keskendus tajutud suhtega rahulolu seostele partnerite omaduste ja partnerite vahelise sarnasusega ning teguritele, mis võivad ennustada Sternbergi kolmnurkse armastusteooria kolme komponendi—lähedus, kirg ja pühendumus—kõrgemat taset Eesti heteroseksuaalsetes pikaajalistes suhetes olevate meeste ja naiste seas. Uuringu eesmärk oli välja selgitada, kas partnerite suurem sarnasus on seotud kõrgema suhtega rahuloluga. Partnerite sarnasust hinnati tajutud füüsilise atraktiivsuse, lahkuse, tervise ja ressursside alusel, samuti arvestati vanuse- ja hariduserinevusi. Uuringus osales 151 inimest, kellest 22 (14,6%) olid mehed ja 129 (85,4%) naised, vanuses 19–80 aastat. Tulemused näitasid, et partnerite sarnasus ei korreleerunud statistiliselt oluliselt suhtega rahuloluga. Siiski leiti, et kaaslase füüsiline atraktiivsus ja lahkus olid tugevalt seotud suurema rahuloluga, samal ajal kui hariduserinevused mõjutasid rahulolu negatiivselt. Regressioonianalüüsid näitasid, et suuremat lähedust ennustasid kaaslase lahkus ja suhte kestus; pühendumust aga kaaslase füüsiline atraktiivsus, lahkus ja suhte pikkus; kirge kaaslase füüsiline atraktiivsus ja lahkus. Hariduserinevused avaldasid negatiivset mõju kõigile kolmele armastuse komponendile.

Märksõnad: suhtega rahulolu, Sternbergi kolmnurkne armastusteooria, partnerite sarnasus, heteroseksuaalsed eesti paarid

Introduction

Understanding Love: A Multidisciplinary Approach

The concept of love has perennially fascinated people, prompting them to explain, attain, and preserve it. With love being an inherent and universal part of the human experience as well as a central element of romantic relationships, numerous theoretical frameworks have been provided over time, attempting to offer a definition and explain the workings of this phenomenon. It has been approached through the viewpoint of different fields, from a philosophical (e.g. – Secomb, 2007; Singer, 2009), economic (e.g. – Becker, 1973; Foster, Pingle & Yang, 2019), neurobiological (e.g. – Esch & Stefano, 2005; Francesco & Cervone, 2014), evolutionary (e.g. – Walsh, 1993), theological (e.g. – Jeanrond, 2010), to a sociological angle (e.g. – Hendrick & Hendrick, 1986; Gonzaga et al., 2006; Sorokowski et al., 2017). Within social sciences alone, several theories have emerged, such as the dichotomy of passionate versus companionate love (Feybesse & Hatfield, 2019), the Attachment Theory (Bowlby, 2012), and a typology of six love styles: Eros (passionate love), Ludus (game-playing love), Storge (friendship-based love), Pragma (practical love), Mania (obsessive love), and Agape (selfless love) (Hendrick & Hendrick, 2019; Sorokowski et al., 2020)."

Sternberg's Triangular Theory of Love

In this paper, the concept of love will be explored based on Sternberg's (1986, 2021) Triangular Theory of Love, which is currently one of the most prominent theories of love (Kowal et al, 2024). According to this theory, love is presented through three components constituting the three vertices of a triangle: (1) intimacy, (2) passion, and (3) decision/commitment (Sternberg, 1986; Anderson, 2016). These components are distinct yet deeply interconnected (Sternberg, 1986). *Intimacy*, often referred to as the "warm" element of love, as it encompasses feelings of closeness, connectedness, caring, and emotional investment (Sternberg, 1986; Anderson, 2016; Sorokowski et al., 2020), is often viewed as a slowly developing foundation in romantic relationships that can be difficult to achieve but remains relatively stable over the course of a relationship, as long as partners are emotionally close and feel satisfied with their relationship (Sternberg, 1986; Anderson, 2016). *Passion*, the so-called "hot" component of love, drives the desires and needs that lead to romance, physical and sexual attraction, the desire to be together, the sexual consummation of a romantic relationship, and sometimes even obsession

(Sternberg, 1986; Cassepp-Borges & Pasquali, 2012; Anderson, 2016; Sorokowski et al., 2020). Passion is regarded as less constant and less predictable; it tends to arise and peak quickly but can also dissipate rapidly over the course of the relationship (Anderson, 2012; Sorokowski et al., 2020). The third vertex, *Decision/Commitment*, the most cognitive or “cold” component of love, refers to the conscious decision and motivation to maintain the relationship (Sternberg, 1986; Kowal et al., 2024). In the short term, the *decision* part encompasses the deliberate choice to love a specific other and to stay with them, thus suspending romantic or sexual relationships with others (Sternberg, 1986; Anderson, 2016). In the long term, the *commitment* part expresses the dedication to maintaining the relationship (Sternberg, 1986; Anderson, 2016). Commitment, like intimacy, is characterized by its stability and tendency to grow over time in long-term relationships (Sternberg, 1986; Anderson, 2016; Kowal et al., 2024).

Although the components of love have distinct properties and functions, they collectively form a complex entirety that shapes our human experience of love (Sternberg, 1986). Sternberg (1986; 2021) posits that the significance of these three components can shift according to the nature and length of the relationship. Specifically, in short-term romantic relationships, passion assumes a predominant role—potentially due to its evolutionary significance in enhancing the chances of sexual encounters and, consequently, reproduction—while intimacy may be somewhat developed, and commitment may be minimal or nonexistent. Conversely, in long-term romantic relationships, intimacy and commitment are crucial for the relationship's sustainability. Here, passion typically has a lesser influence and often wanes as the relationship matures (Sternberg, 1986).

The subjective experience of love depends on the relative strength of these components, resulting in distinctly different types of love (Anderson, 2016). Sternberg (1986) has identified eight types: non-love, liking, infatuated, empty, fatuous, companionate, romantic, and finally, consummate love. The latter is considered as the most complete form and often the ultimate goal in romantic relationships, yet it is challenging to attain and even more so to sustain over time, as it embodies all three components (Anderson, 2016). A visual representation of the eight types of love is presented in *Figure 1*.

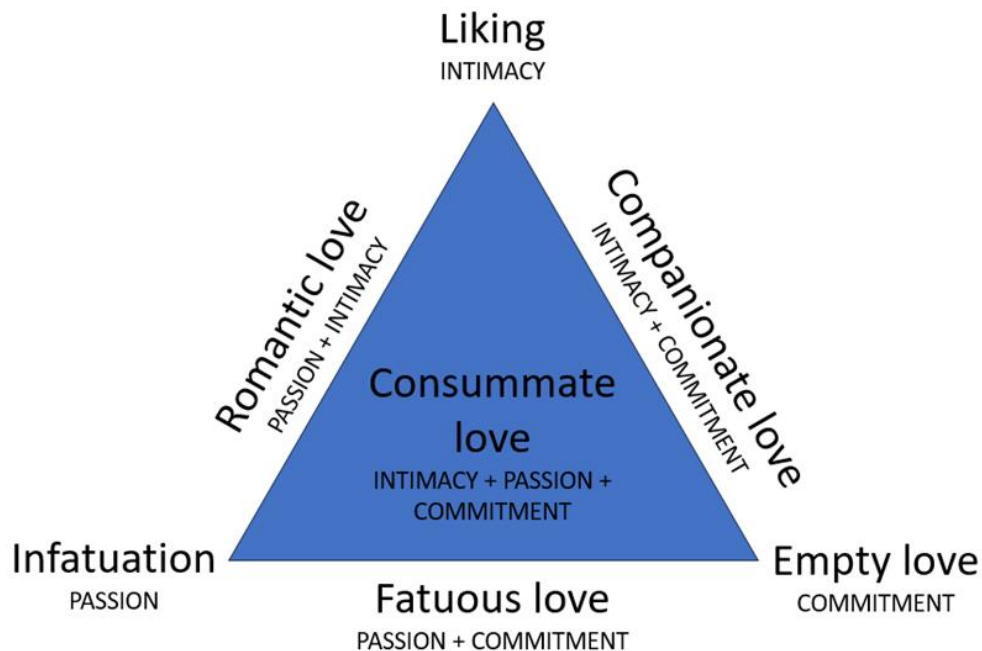


Figure 1. The eight types of love as described by R.J. Sternberg (1986).

Measuring Love: The Triangular Love Scale

Based on the Triangular Theory of Love, Sternberg (1988; 1997) developed the Triangular Love scale (TLS-45), wherein each of the three components—intimacy, passion, and commitment—is assessed through 15 items. This scale has become one of the most widely used instruments for measuring love, enhanced by its recent validation in a study encompassing 25 countries and 19 languages by Sorokowski et al. (2020), which demonstrated adequate psychometric properties across diverse cultures. Additionally, a recent study by Kowal et al. (2023) validated a shorter, 15-item version of the Triangular Love Scale (TLS-15) across 37 languages, confirming its good psychometric properties and cross-cultural invariance.

The TLS-45, alongside the Triangular Theory of Love, has been frequently utilized in studies exploring the presence and dynamics of intimacy, passion, and commitment within relationships over time (e.g., Acker & Davis, 1992; Lemieux & Hale, 2000; Lemieux & Hale, 2002; Muloko, Limbu & Anakaka, 2020). It also plays a crucial role in research related to relationship satisfaction, where the TLS-45 is employed to gauge relationship satisfaction in relation to various factors influencing said satisfaction (e.g., Madey & Rogers, 2009; Kochar &

Sharma, 2015). Madey and Rogers (2009) discovered that the correlations between attachment styles and variables of the Triangular Theory of Love are significant for relationship satisfaction, with a more secure attachment leading to higher levels of intimacy and commitment, which in turn are associated with higher relationship satisfaction. Fletcher, Simpson, and Thomas (2000) also established that intimacy, passion, and commitment, as part of the broader relationship quality components, are interconnected and contribute to the overall satisfaction within romantic relationships. The relationship between passion, intimacy, commitment, and relationship satisfaction is multifaceted. Research suggests that although passion plays a crucial role in relationships, its correlation with overall perceived relationship quality might not be as significant as that of intimacy and commitment. Passion, defined by intense, sexual, and arousing love, exhibited reduced second-order loadings on perceived relationship quality in both longer-term relationships and the early stages of dating (Fletcher, Simpson & Thomas, 2000).

Research on Relationship Satisfaction

Exploring relationship satisfaction extends beyond this singular approach. Research has pursued various angles aiming to uncover the keys to more fulfilling relationships, by examining the links between relationship satisfaction and a range of factors, qualities, practices, and skillsets (including conflict management skills or practicing mindfulness techniques). Studies have investigated aspects such as physical attractiveness (e.g., Meltzer, McNulty, Jackson & Karney, 2014), sexual satisfaction (e.g., Byers, 2005; Butzer & Campbell, 2008), personality (e.g., Malouff et al., 2009; Decuyper, De Bolle & De Fruyt, 2011), optimism (e.g., Srivastava et al., 2006), mindfulness (e.g., Barnes et al., 2007), financial problems (e.g., Dean, Carroll & Yang, 2007), couple similarity (e.g., Wilson & Cousins, 2003), and the similarities between oneself and their romantic partner.

Research on partner selection and relationship satisfaction is indeed diverse and fascinating and provides valuable insights into the dynamics of romantic relationships. Luo (2009) noted that early in dating, couples exhibit moderate similarity in demographics, interests, values, and political attitudes, while showing less similarity in personality traits. Notably, the absolute difference between partners emerged as a stronger predictor of relationship satisfaction than the degree of similarity in their profiles. In the realm of long-term mate preferences, Jonason, Webster, and Gesselman (2013) highlighted gender differences, with men placing a

higher value on physical attractiveness and women on interpersonal warmth and social status. In a complementary vein, Meltzer et al. (2013) discovered that a husband's marital satisfaction is more significantly influenced by his wife's physical attractiveness than vice versa. This aligns with the Sexual Strategies Theory (Buss & Schmitt, 2016), which suggests that men value a woman's capability to produce viable offspring, which they assess by the physical attractiveness of a woman, as this can be perceived as a sign of safe child-bearing age and good health. In turn, women value a man's ability to provide for the mother and children.

Wilson and Cousins (2003) introduced the Compatibility Quotient (CQ), a measure designed to evaluate the relationship between partner similarity and satisfaction, finding that greater similarity is typically associated with increased satisfaction. Similarly, Luo and Klohnen (2005) identified a positive correlation between personality similarity and relationship satisfaction among heterosexual couples. These findings underscore the multifaceted factors that contribute to relationship satisfaction, including partner selection criteria, mate preferences, physical attractiveness, partner similarity, and gender differences, thereby enriching our comprehension of how romantic relationships are navigated and experienced.

Further exploring the interplay between mate preferences and relationship satisfaction, Madey and Rodgers (2009) and Kučerová, Csajbók, and Havlíček (2018) investigated how individuals' attachment styles and adjustments in ideal mate preferences correlate with relationship satisfaction. Kučerová, Csajbók, and Havlíček (2018) suggested that aligning one's ideal mate preferences with the characteristics of their current partner may enhance satisfaction by bridging the gap between idealized expectations and the realities of the relationship.

Moreover, Józefacka, Szpakiewicz, Lech, Guzowski, and Kania (2023) examined the application of Sternberg's Triangular Theory of Love in young adults' relationships, emphasizing the predictive importance of intimacy, passion, and commitment for satisfaction. Their study revealed that sexual satisfaction is a crucial predictor for both men and women, with women placing a greater emphasis on interpersonal closeness than sexual satisfaction, especially in cohabiting scenarios. Cohabiting individuals often report higher levels of satisfaction, likely due to the increased commitment that cohabitation signifies.

Collectively, these studies highlight the intricate interplay between individual mate preferences, the components of Sternberg's Triangular Theory of Love, and various other factors that influence relationship satisfaction. This body of research underscores the complexity of

romantic relationships and the myriad elements that contribute to the satisfaction experienced by partners.

Despite the extensive research on love, there remains a notable gap in the literature concerning the Estonian population. Research on the interplay between relationship satisfaction, partner similarity, and the components of Sternberg's Triangular Theory of Love in Estonia is notably absent. This offers an opportunity to investigate how Estonians perceive and experience love, intimacy, passion, and commitment, and how these factors influence relationship satisfaction and the dynamics between partners. Such research could illuminate cultural distinctions and relationship patterns unique to Estonia, enhancing our understanding of romantic relationships in this cultural setting.

The present study

The current research paper aims to explore the associations between relationship satisfaction and partner similarity, alongside other potential factors influencing perceived satisfaction within romantic relationships. It also seeks to examine the relationship between satisfaction and the three components of Sternberg's triangular theory of love—intimacy, passion, and commitment—anticipating that these components will correlate positively with satisfaction, as established by previous studies.

Additionally, this study aims to delve into the factors that predict higher levels of relationship intimacy, passion, and commitment. The impact of mate characteristics, such as kindness, physical attractiveness, resources, and health, on the level of satisfaction will be examined, alongside factors such as differences in education and age, the number of children, and the length of the relationship. Additionally, relationships between all three love components and variables such as sex, one's own age, age and education difference between partners, number of children, and mate attributes (kindness, physical attractiveness, health, and resources) will be explored.

By addressing these aims, the study intends to contribute to the understanding of how various factors, including the components of Sternberg's Triangular Love Theory, influence relationship satisfaction among Estonian men and women in heterosexual relationships. This research will address the gap in the literature regarding the Estonian context and provide insights

into the complex interplay between partner similarity, individual attributes, and the foundational elements of love in shaping relationship satisfaction.

The following hypotheses were set:

H1. The degree of similarity in perceived physical attractiveness, healthiness, financial prospects, and kindness between romantic partners is statistically significantly and positively correlated with their levels of relationship satisfaction.

H2. There is a statistically significant positive correlation between partner resources and relationship satisfaction in women.

H3. There is a statistically significant positive correlation between partner physical attractiveness and relationship satisfaction in men.

Method

Participants

The current research comprised 577 adult Estonian participants, of whom 390 were excluded from the final data analysis either due to failing to complete the questionnaire or due to being single at the time of participation, thus being unable to provide information about relationship satisfaction or a current partner. As this study aims to examine the factors influencing relationship satisfaction in adult heterosexual relationships, a further 36 participants were excluded due to their sexual orientation being other than heterosexual. Participants who had ten or more unanswered questions in the questionnaires used for this paper were also excluded. The data from 151 participants was processed for further analysis, including 22 (14.6%) male participants and 129 (85.4%) female participants, who ranged in age between 19 and 80 years ($M = 37.44$, $SD = 12.64$). In terms of relationship status, 20.5% were dating someone, 40.4% were in a committed relationship and 39.1% were married. 37.1% of the participants reported having no children, 12.6% had one child, 27.2% had two, 15.9% had three, 6% had four, and 1.3% had five children.

Another aspect that was of importance to this study, was relationship length. The longest relationship length was 52 years, and the average relationship length was 10.8 years ($SD = 10.3$). A more precise distribution of the proportion of participants and their relationship length is provided in *Table 1* below.

Table 1. Percentage of participants per relationship length with their current partner.

	Relationship length in years												
	1	2	3	4	5	6	7	8	9	10...15	16...20	21...26	27+
% of participants	18.5	8.6	4	6	7.3	2.6	2	3.3	4	15.2	11.3	9.3	7.9

Procedure and measures

The data was collected as part of a large-scale global study, the protocol of which had been approved by the Ethics Committee of the Institute of Psychology of the University of Wrocław in Poland. Ethical guidelines were followed when collecting data on an Estonian sample and all participants provided their informed consent to participate in the survey before accessing the questionnaire. Like in the other countries where English was not the primary language, the questionnaire was adapted into Estonian, and the participants completed it in their native language. The forward-translation from English to Estonian was performed by the author of the current study and the back-translation by the supervisor. The survey as a whole was comprised of different topics and questionnaires, part of which involved the topics focused on by this paper.

The collection of the data spanned five months, from April to August 2021, and was gathered online via the Qualtrics platform. The survey was distributed via e-mail lists, including university e-mail lists, social media, Facebook groups, and by sending the link directly to people within work or personal social cycles. Participants were asked to share the survey within their social network and on social media. This approach to survey distribution is indicative of a non-probability sampling method, which may introduce sampling bias and affect the generalizability of the results.

The collected data used for this study included basic demographic information (the age of oneself and their romantic partner, sex, sexual orientation, relationship status and length, number of children, level of education), information about the participant and their actual long-term romantic partners and relationship satisfaction. The short version of the Triangular Love Scale (TLS-15; Kowal et al., 2024) was used to measure the levels of intimacy, passion, and commitment in these romantic relationships. Additionally, to measure perceived satisfaction with the romantic relationship, six questions from the Perceived Relationship Quality Component

Scale (PRQC; Fletcher, Simpson & Thomas, 2000) were presented regarding the perceived commitment to and satisfaction with the current relationship. The Perceived Relationship Quality Component Scale is an 18-item self-report measure that assesses relationship satisfaction, commitment, intimacy, trust, passion, and love, each measured by three questions using a 7-point Likert-type scale (Fletcher, Simpson & Thomas, 2000). It has been shown to be reliable and valid, across different cultural settings (Fletcher, Simpson & Thomas, 2000; Chua et al, 2022). Lastly, participants were asked to rate themselves and their current long-term romantic partner based on four qualities: physical attractiveness, financial prospects, kindness, and healthiness. To rate these qualities, participants were asked to compare themselves and their romantic partner against the adult (aged 18-75) population in their country. To clarify the commonness or rarity of those qualities, a reference to the approximate number of people (out of 100) who rank higher or lower than the average for each quality was given. An example question is presented below, in *Figure 2*.

How **physically attractive** is your current romantic partner?

- Extremely physically unattractive** (Bottom 1 out of 100 people)
- (Bottom 3 out of 100 people)
- (Bottom 8 out of 100 people)
- (Bottom 18 out of 100 people)
- (Bottom 32 out of 100 people)
- Average** (Top 50 out of 100 people)
- (Top 32 out of 100 people)
- (Top 18 out of 100 people)
- (Top 8 out of 100 people)
- (Top 3 out of 100 people)
- Extremely physically attractive** (Top 1 out of 100 people)

Figure 2. Example for evaluation of characteristics (attractiveness, financial prospects, kindness, healthiness)

Analysis strategy

The data organization and analysis was carried out using the statistical software Jamovi (version 2.3.28). Firstly, a partner similarity index (self characteristics composite score minus partner characteristics composite score) was created and its absolute value was utilized in the analyses. Similarly, a composite score was created for intimacy, passion, commitment, and relationship satisfaction. Age and education difference indexes were also calculated, and their absolute values were used.

After conducting normality tests, it was determined that the data did not follow a normal distribution. Consequently, to accommodate the non-normal nature of the data and ensure the validity of the analyses, non-parametric statistical methods were employed. To test the hypotheses, a series of correlation analyses were conducted, using Spearman's ρ . The significance level was set at $p = .05$. Mann-Whitney U-tests were used to explore group correlation differences and regression analyses were conducted to explore which factors predict higher levels of intimacy, passion, and commitment in a relationship.

In the analysis of the STLS-15 and the PRQC, Cronbach's alpha was calculated to assess the internal consistency of each subscale. Each of the three STLS-15 subscales consisted of 5 items, measuring intimacy ($\alpha = .938$), passion ($\alpha = .893$), and commitment ($\alpha = .886$). The PRQC provided six questions to measure relationship satisfaction ($\alpha = .942$). All scales indicate a high level of internal consistency among their items, demonstrating that the items are well-correlated and effectively measure the same underlying concept.

Results

Descriptive Statistics

First, descriptive statistics were explored. The results are presented in *Table 2*.

Table 2. Descriptive statistics

	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>SD</i>	<i>Range</i>	<i>Min</i>	<i>Max</i>
Participant age	151	37.4	38	24	12.6	61	19	80
Partner age	151	38.7	38	36	13.3	59	18	77
Age difference	151	-1.26	-1	0	5.41	46	-26	20
Self and Partner similarity (abs)	151	3.70	3	1	3.06	15	0	15
Relationship length	151	10.8	8	1	10.3	51	1	52
Number of Children	151	1.45	2	0	1.35	5	0	5
Participant age	151	37.4	38	24	12.6	61	19	80

Note. Participant and partner age, age difference, and relationship length are measured and presented in years. *N* refers to the number of participants whose data was used in the analyses. *SD* stands for standard deviation and *Min* and *Max* refer to minimum and maximum value, respectively. *Abs* stands for absolute value.

Correlation Analyses

The results indicated that there was no statistically significant correlation between relationship satisfaction and partner similarity, $\rho = -.050$, $p = .539$. When considering mate characteristics, a statistically significant positive correlation was found between relationship satisfaction and mate physical attractiveness, $\rho = .294$, $p < .001$, indicating that higher perceived physical attractiveness of a mate is associated with greater relationship satisfaction. It was also explored for both genders separately: for men, the correlation was $\rho = .398$, $p = .066$, and for women $\rho = .281$, $p = .001$, indicating that women value it more. The small number of male participants, however, doesn't allow to generalize those findings.

A statistically significant positive correlation was also observed between relationship satisfaction and mate kindness, $\rho = .259$, $p = .001$, suggesting that higher levels of perceived mate kindness are associated with increased relationship satisfaction. Men showed a stronger correlation, $\rho = .459$, $p = .032$, compared to women, $\rho = .222$, $p = .011$.

There was no correlation between relationship satisfaction and mate resources, $\rho = .044$, $p = .596$, indicating no meaningful relationship. This was consistent for both men, $\rho = .050$, $p = .825$, and women, $\rho = .044$, $p = .618$.

Similarly, the correlation between relationship satisfaction and mate healthiness was not statistically significant, $\rho = .104$, $p = .202$, suggesting no strong evidence of a significant

relationship between mate healthiness and relationship satisfaction for neither men, $\rho = .081, p = .719$, nor women, $\rho = .119, p = .181$.

A statistically significant negative correlation was found between relationship satisfaction and education difference, $\rho = .209, p = .010$, indicating that as the education difference between partners increases, relationship satisfaction tends to decrease. For men, a weak positive correlation was observed, $\rho = .099, p = .661$, while for women, a statistically significant negative correlation was found, $\rho = -.242, p = .006$, which suggests women find it more important to have similar educational levels.

There was no statistically significant correlation between relationship satisfaction and age difference, $\rho = .036, p = .660$, in the overall sample. However, for men, a positive correlation was noted, $\rho = .421, p = .051$, suggesting a potential association between age difference and relationship satisfaction for men, although this was not statistically significant. For women, a very weak negative correlation was observed, $\rho = -.067, p = .447$, indicating no clear association between age difference and relationship satisfaction.

Strong positive correlations were found between relationship satisfaction and the levels of intimacy, $\rho = .833, p < .001$, passion, $\rho = .825, p < .001$, and commitment, $\rho = .809, p < .001$, within a relationship, all of which were statistically significant. These results suggest that higher levels of these components are associated with increased relationship satisfaction. All correlations regarding relationship satisfaction are presented in *Table 3* below.

Table 3. Descriptive Statistics and Correlation Coefficients for factors influencing relationship satisfaction

	Relationship satisfaction (Spearman's ρ)	<i>M</i>	<i>SD</i>	<i>Median</i>
Self and partner similarity	-.050	3.70	3.06	3
Mate physical attractiveness	.294***	7.40	1.89	7
Mate kindness	.259***	7.97	1.82	8
Mate resources	.044	6.95	1.68	7
Mate health	.104	7.64	1.88	8
Intimacy	.833***	4.09	.884	4.40
Passion	.825***	3.44	.975	3.40
Commitment	.809***	4.06	.877	4.40
Age difference	.036	3.63	4.19	3
Education difference	-.209**	.801	.864	1
Number of children	-.074	1.45	1.35	2
Relationship length	-.091	10.8	10.3	10.3

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. ** indicates $p < .01$, *** indicates $p < .001$.

Even though there was not a significant correlation between satisfaction and partner similarity, there might be differences between men and women, thus Mann-Whitney U-Test was employed to assess whether there were significant differences in the means of two distinct groups. The analysis compared the average scores of men (Group 1) and women (Group 2) on a particular measure. There was no difference between the groups ($U = 1276$, $r_{rb} = .101$, $p = .452$). Consequently, the statistical evidence does not support the presence of a significant difference between the mean scores of men and women for the variable under consideration. This outcome suggests that any observed differences in the sample means are likely attributable to random chance rather than a systematic effect between the genders. However, the number of male participants doesn't allow to form a conclusive understanding of gender differences in this context.

Predictors of Relationship Satisfaction

The regression analyses conducted on the factors influencing the average levels of intimacy, passion, and commitment in relationships have yielded insightful results. The model for intimacy accounted for 26% of the variance ($R^2 = .260$), indicating a moderate explanatory power. Mate physical attractiveness and intimacy were not associated ($\beta = .06279$, $t = 1.6126$, $p = .109$), suggesting that physical attractiveness alone is not a strong predictor of intimacy levels. In contrast, mate kindness had a significant positive effect ($\beta = .18811$, $t = 4.9767$, $p < .001$), indicating that perceived kindness is a substantial factor in enhancing intimacy. Relationship length also positively predicted intimacy ($\beta = .01852$, $t = 2.0841$, $p = .039$), supporting the idea that intimacy grows over time (Sternberg, 1986; Anderson, 2016). Education difference between partners was negatively associated with intimacy ($\beta = -.25267$, $t = -3.1779$, $p = .002$), suggesting that educational compatibility influences intimate connection.

The passion model explained 20.8% of the variance ($R^2 = .208$), with mate physical attractiveness ($\beta = .14301$, $t = 3.2202$, $p = .002$) and kindness ($\beta = .13217$, $t = 3.0657$, $p = .003$) both emerging as significant positive predictors, indicating that these attributes are integral to the experience of passion in a relationship. The negative coefficient for education difference ($\beta = -.21198$, $t = -2.3389$, $p = .021$) suggests an inverse relationship with passion.

For commitment, the model accounted for 19.9% of the variance ($R^2 = .199$). Mate physical attractiveness ($\beta = .08574$, $t = 2.1339$, $p = .035$) and kindness ($\beta = 0.12356$, $t = 3.1679$, $p = .002$) were positively associated with higher levels of commitment, reinforcing the importance of these traits in fostering a strong bond. Additionally, the positive connection with relationship length ($\beta = .02349$, $t = 2.5609$, $p = .011$) supports the notion that commitment deepens as the relationship progresses (Sternberg, 1986; Anderson, 2016; Kowal et al., 2024). Education difference had a significant negative impact ($\beta = -.23493$, $t = -2.8652$, $p = .005$), indicating that partners with similar educational backgrounds might experience stronger commitment.

Discussion

The present study sought to investigate the factors influencing perceived relationship satisfaction and its relation to the three love components of Sternberg's Triangular Love Theory among Estonian women and men in heterosexual relationships. The findings of this study contribute to the existing body of literature by providing insights into the dynamics of relationship satisfaction within the Estonian context, a previously under-researched area.

Contrary to the hypothesis that posited a positive correlation between the degree of congruence in perceived physical attractiveness, healthiness, financial prospects, and kindness between romantic partners and their levels of relationship satisfaction, there was no significant correlation between partner similarity and relationship satisfaction, therefore the hypothesis was not supported. In part, this contradicts the findings of Luo and Klohnen (2005), which indicated a positive correlation between these two, but also suggested that not all attributes and characteristics contribute equally to satisfaction with one's relationship. According to Luo and Klohnen (2005), similarities contributing to satisfaction were mostly observed in attitudes and not personality. The lack of significance in this study could either be attributed to cultural factors unique to Estonia or to the possibility that other factors may be more influential in determining relationship satisfaction within this population or that similarity in the traits investigated in this study, i.e. physical attractiveness, health, financial resources, and kindness, contributes less to the perceived quality of a romantic relationship and other characteristics or value based attributes should be explored.

The second hypothesis predicted a positive correlation between partner resources and relationship satisfaction in women. Contrary to this, the findings showed a statistically insignificant correlation between relationship satisfaction and mate resources indicating no meaningful relationship between mate resources and relationship satisfaction for neither women nor men. Similarly, partner healthiness didn't contribute statistically significantly to satisfaction. This insight aligns with the broader discussion on mate preferences and relationship satisfaction in the references explored in the literature review, indicating a potential shift in the factors considered important in the context of romantic relationships.

Thirdly, a positive correlation between partner physical attractiveness and relationship satisfaction was hypothesized in men. The findings did not align with this expectation, showing no statistically significant correlation for men. On the contrary the correlation for women was

positive and statistically significant. It is important to bear in mind though, that the proportion of men in the sample used for data analysis was significantly smaller compared to women, which limits making any fundamental conclusions about men's preferences. According to the evolutionary perspectives and previous research, physical attractiveness may serve as a cue for genetic fitness and health, both desirable traits in mate selection, however Buss & Schmitt (2016) and is believed to be mostly valued by men, which is contradictory to the present findings. The small size of the male sample may have influenced those findings, however, thus requiring further investigation.

Mate kindness was found to have a positive correlation with relationship satisfaction, with a stronger correlation observed for men. This underscores the importance of prosocial behavior and emotional support in maintaining satisfying romantic relationships. Kindness may indicate a partner's willingness to invest in the relationship and to provide care and support, which are key components of intimacy. These findings align with broader research that highlights both physical attractiveness and interpersonal warmth as significant factors influencing relationship satisfaction. Notably, previous studies have consistently shown that attributes like physical attractiveness and kindness are crucial in enhancing relationship satisfaction across various contexts (Melzer et al., 2013; Jonason, Webster, & Gesselman, 2013; Kučerová, Csajbók, & Havlíček, 2018).

A negative correlation between relationship satisfaction and education difference was observed, particularly for women. This may suggest that disparities in educational backgrounds may pose challenges to relationship harmony, as intellectual compatibility may be associated with similar backgrounds, similar life goals and it may facilitate better communication and understanding between partners. This aspect is less frequently explored in the broader research provided, but it highlights the importance of considering various dimensions of partner compatibility. Conversely, the impact of age difference and the number of children on relationship satisfaction was found to be minimal, indicating that these factors might not significantly affect the perceived quality of the relationship.

The study uncovered positive correlations between relationship satisfaction and the levels of intimacy, passion, and commitment, supporting the central tenets of Sternberg's Triangular Love theory (Sternberg, 1986). These results suggest that the presence and balance of these three components are crucial for the perception of a satisfying relationship, as all three elements of

love play integral roles in the subjective experience of relationship satisfaction. These findings are consistent with those explored by Józefacka et al. (2023), amongst other studies that have validated the significance of these components in enhancing the experience of love. The regression analyses further elucidated the predictors of high levels of intimacy, passion, and commitment, revealing that mate kindness and physical attractiveness consistently contribute positively to all three love components. Additionally, relationship length emerged as a positive contributor to intimacy and commitment, suggesting that these components strengthen over time, as posited in previous research (Sternberg, 1986; Anderson, 2016; Kowal et al., 2024). Education difference posed a challenge to all three love components, particularly to intimacy and commitment.

In light of these findings, it is evident that relationship satisfaction is influenced by a complex array of factors, including individual mate preferences and the components of Sternberg's Triangular Theory of Love. This study's insights into the Estonian population add a cultural dimension to the understanding of romantic relationships, suggesting that cultural context may play a role in shaping the dynamics of love and satisfaction, as some of the results differ from the findings of previous studies. The results highlight the significance of mate kindness and physical attractiveness across all three facets of love—intimacy, passion, and commitment—as well as relationship satisfaction. Moreover, the study reveals that while partner similarity in certain attributes may not significantly influence relationship satisfaction, the alignment of educational backgrounds and the presence of intimacy, passion, and commitment play crucial roles in the satisfaction experienced within romantic relationships. The findings have several implications for future research and practice. The lack of significance in partner similarity suggests that future research should explore other factors that may be more influential in determining relationship satisfaction within the Estonian context. For practitioners, such as couple therapists and relationship counselors, these findings emphasize the importance of fostering intimacy, passion, and commitment in therapeutic interventions. Encouraging couples to engage in activities that enhance these components may lead to higher levels of relationship satisfaction. Future research could build on these findings by exploring the cultural nuances or other mate characteristics that influence relationship satisfaction and by examining the long-term stability of these factors in romantic relationships.

Limitations of the study and Future Research Directions

The study's sample size of 151 participants presents limitations in terms of generalizability. This somewhat smaller sample size may limit the statistical power of the study, potentially increasing the risk of failing to detect an effect that is present and affecting the confidence in the findings. A notable gender imbalance, with a predominance of female participants (85.4%), further restricts the applicability of the findings to the male population. Furthermore, the cross-sectional nature of the study means that data was collected at a single point in time, which precludes the establishment of causality or the observation of changes in relationship satisfaction and the fluidity in the presence of intimacy, passion, and commitment over time.

Another aspect to consider is that the questionnaire, adapted into Estonian from a larger study without modifications, may not have been fully optimized to capture the nuances of relationship satisfaction specific to the study's focus. A tailored questionnaire could have provided more in-depth and specific data relevant to the research questions. Similarly, the length of the survey, designed to cover multiple topics for global research papers, could have led to participant fatigue, which might have resulted in less thoughtful responses or increased survey abandonment rates.

The survey did not use relationship status as an inclusion criterion, which is relevant to the study's focus on individuals in relationships. Consequently, a significant number of single respondents were excluded from the analysis, affecting the sample size and representativeness of the study population. Had the survey been presented separately, it would have allowed to seek out coupled individuals which in turn would have decreased the elimination of such a big proportion of respondent data and provided a bigger sample to use for the final data analysis.

Future research should aim to refine measurement tools, expand the scope of investigation, and incorporate new theoretical perspectives to overcome the limitations of the current study. This could involve designing a study-specific questionnaire containing a wider scope of characteristics that could affect relationship satisfaction and the levels of the three love components and employing a longitudinal design to establish causality. Additionally, future studies could explore the impact of similarity in other domains, such as attachment styles and values, on relationship satisfaction within an Estonian sample.

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