Research Articles

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Gender Differences in Self-Estimated Types of Love for Self and Others

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Abstract

Empirical work about love has primarily considered the love of one individual for another. This work uses a novel method to study estimated types of love for self and others based on passionate and companionate theory, and triangular love theory. Two hundred and fifty participants (161 females and 89 males) rated self-estimates and other's estimates (romantic partners and parents) of global love and several love types. Women self-estimated passionate love, companionate love, intimacy, and commitment more than men did. Gender differences in estimated love types for romantic partners, fathers, and mothers were not evidenced. As regards self-partner differences respondents rated their romantic partners similarly to themselves. Regarding generational differences, children assessed themselves greater in all love types than their parents, except in commitment. Passionate love and commitment significantly predicted global love for self, partners, and parents. Suggestions and limitations are offered.

Keywords

gender differences, love types, parents, romantic partners, self-assessment

Love is a complex experience which may be reflected in diverse aspects, such as attitudes, emotions, or behaviors (Hatfield et al., 2020; Hendrick & Hendrick, 2020; Karandashev, 2017; Sternberg & Weis, 2006). Although the term "love" often refers to an attitude or sentiment toward one's partner, love presents several forms in close adult relationships, such as paternal love and maternal love (Fehr & Russell, 1991). This study uses a distinct insight in how persons estimate their own and other's love. Whereas a number of works have studied the love of one person toward another (Hendrick &

Hendrick, 1992; Karandashev et al., 2020; Rubin, 1970; Sternberg & Barnes, 1988), only scarce research has approached the love estimates of others' love (Neto, 2021a; 2021b).

This study analyzes self-estimated love (SEL), a subjective form of assessment. Two areas of investigation are relevant to explore SEL. The first area is psychosocial research on self-estimated intelligence (SEI). Although psychologists have preferred to measure intelligence through standardized ability tests, nonpsychometric methods may also be examined to understand intellectual competence. Within these assessment approaches is self-estimated or subjectively assessed intelligence (Chamorro-Premuzic et al., 2004; Furnham, 2001; Sternberg, 1986a). SEI has shown great applicability (Furnham & Grover, 2020; Gignac, 2018; Howard & Cogswell, 2018; Reilly et al., 2022). The second area is psychosocial research on different kinds of love (Lee, 1973; Hatfield & Walster, 1978; Hazan & Shaver, 1987; Hendrick & Hendrick, 1986; Neto, 2012a; Sternberg,1986b).

As far as we know, only two studies have been done on SEL (Neto, 2021a; 2021b). In the Neto's (2021a) study females provided estimates of their own, their romantic partner's and their parents' overall love and several varieties of love. Fifteen measures were used, and the data evidenced four independent love dimensions: psychological closeness, sexual love, obsessive love, and interpersonal distance. Females provided estimates of their partners as being lower in psychological closeness and greater in sexual love. Daughters estimated themselves greater in psychological closeness, sexual and obsessive love than their fathers and mothers. Psychological closeness was the strongest predictor of the overall love estimates for self, romantic partners, and parents. This finding seems to suggest that psychological closeness is a key dimension of romantic love. Given that the sample consisted only of women, gender differences were not explored. Neto's (2021b) study extended the previous study to the analysis of gender differences of self, partner, and parental estimates of the colors of love (Lee, 1973). Women self-estimated themselves as greater than men for storgic, pragmatic, and agapic colors of love. Men rated their romantic partners greater in mania. Gender differences in estimates of fathers and mothers colors of love did not appear. Regarding generational differences, children tended to estimate themselves greater in love than their fathers and mothers. The best predictors of overall love for estimates of self, partners, and parents were affected by psychological closeness and sexual aspects in line with the first study (Neto, 2021a).

The present study extends the two previous studies by examining self-estimated gender differences of two love theories, the passionate and companionate love theory, and the triangular theory of love (Hatfield & Walster, 1978; Sternberg & Weis, 2006). In nearly all cultural contexts, individuals differentiate between passionate love and companionate love (Hatfield & Rapson, 2005). Passionate love (at times named "obsessive love", "infatuation", "lovesickness", or "being-in-love") is a strong emotional state. Hatfield and Rapson (1993) defined it as "A state of intense longing for union with another. Passionate love is a complex functional whole including appraisals or appreciations, subjective feelings, expressions, patterned physiological processes, action tendencies, and instrumental be-

haviors" (p. 5). Companionate love is not such an intense state. It can be defined as: "The affection we feel for those with whom our lives are deeply entwined" (Hatfield & Rapson, 1993, p. 9). Manifestation of these love types was obtained from diverse methodologies, such as psychometric methods (Sprecher & Regan, 1998). For example, the Passionate Love Scale includes cognitive, emotional, and behavior indicators of "longing for union" (Hatfield & Sprecher, 1986).

Sternberg's (1986b) triangular theory of love holds that love can be understood in terms of three components: passion, intimacy, and decision/commitment. Passion refers "to the drives that lead to romance, physical attraction, sexual consummation, and related phenomena in loving relationships" (p. 119). In loving relationships, sexual needs may prevail, but other needs (e.g., nurturance and affiliation) may also contribute to passion. The passion component is largely motivational. Intimacy concerns "feelings of closeness, connectedness, and bondedness in loving relationships" (p. 119). Therefore, this component comprises feelings that give origin to warmth in loving relationships. It is primarily emotional or affective in nature. Decision/commitment concerns "in the short term, the decision that one loves someone else, and in the long term, the commitment to maintain that love" (p. 119). This component is largely cognitive. These components form the vertices of a metaphorical triangle. Previous research showed that although the three components can overlap to a considerable level, they constitute distinct constructs (Acker & Davis, 1992; Lemieux & Hale, 1999).

The aims of this research are four-fold. The first aim is to analyze whether gender differences are exhibited in estimates of love types for self, partners, and parents. Perceptions of love are expected to differ between men and women (Falconi & Mullet, 2003; Neto, 2012b). Parental Investment Theory (Trivers, 1972) anticipates that males will tend to experience lower emotional investment in relationships than females. In line with this theory Schmitt (2006) reported that sex differences in emotional investment were almost universal across nations. In accord with cultural stereotypes, females generally report more love than males (Hatfield et al., 2008). However, past research about gender differences in passionate love and companionate love has been mixed. For example, Hatfield and Rapson (1987) observed that males and females either reported loving with equal passion or males reported experiencing somewhat less passionate love than females. Singelis et al. (1995) have also found that males loved less passionately and experienced less companionate love than did females. Regarding gender differences of the three components of the triangular theory of love, past research has also been inconsistent. According to Sumter et al. (2013) most of the studies report no gender differences in passion, and women report higher intimacy and commitment than men.

Regarding gender differences of partners' estimates, Neto (2021b) found a significant difference only in mania. Men estimated their partners greater in the manic love style. Nevertheless, in that research no gender differences were found in estimates of parents' love styles. Overall, these results are in line with SEI research. Previous investigation

on SEI pointed out that differences in estimated intelligence were greater in evaluating the self than in evaluating others (Furnham, 2001). Furnham and Ward (2001) analyzed estimates of others' intelligence and evidenced very little gender differences. Neto and Furnham (2006) did not find gender differences in estimated intelligence for partners. Furnham et al. (1999) found gender differences in participants own estimated intelligence but not of parents.

The second aim is to examine whether self and partners differences are exhibited in estimated love types. The development of relationships with close others, namely with romantic partners, is paramount to most people. For this purpose, respondents will estimate his/her love types besides the love types of partners. In a previous study respondents estimated their partners similarly in eros (passionate love), storge (friendly love), pragma (practical love), and agape (altruistic love), but gave them greater estimates in ludus (playful love) and mania (obsessive love) than themselves (Neto, 2021b). Therefore, these findings showed that partners displayed the tendency to be similar in most orientations to love, except in two love orientations (ludic and manic lovers) which are those usually considered the more rejected ones (Hendrick & Hendrick, 1986; Neto, 2021b).

The third aim is to analyze whether generational differences are exhibited in estimates of love types. For this purpose, respondents will estimate their perceptions of parents' love. In a previous study, daughters estimated themselves greater in love than their parents (Neto, 2021a). In the field of SEI, past research has shown generational differences. Each generation believes itself to be more intelligent than the previous generation (Furnham, 2001).

Finally, the fourth aim is to seek the strongest love-type predictors of overall love estimates. Regarding love styles, erotic love, storgic love and agapic love significantly predicted overall love for self, romantic partners, and parents (Neto, 2021b). Those findings denoted that the best predictors were connected to psychological closeness and facets of sexual love (Neto, 2021a).

In sum, five hypotheses will be tested:

Hypothesis 1: Gender differences are expected in self-estimates of love types, namely, women will report higher in passionate love, companionate love, passion, intimacy, and commitment (Hatfield et al., 2008; Sumter et al., 2013).

Hypothesis 2: No gender differences are expected in estimates of love types for romantic partners, fathers, and mothers (Furnham & Ward, 2001; Neto, 2021b).

Hypothesis 3: No self-partners differences are expected in estimates of love types (Hendrick & Hendrick, 1986; Neto, 2021b).

Hypothesis 4: Participants will rate themselves greater on love types than their fathers and mothers (Furnham, 2001; Neto 2021a).

Hypothesis 5: It is hypothesized that passionate love and commitment will predict overall love for self, romantic partners, and parents (Neto, 2021b).

Method

Sample

The participants were 250 college students from the University of Porto (161 females and 89 males). Their ages ranged from 18 to 25 (M = 19.51; SD = 1.35). Females and males did not differ in age (p > .05). All respondents self-reported their nationality as Portuguese.

Questionnaire

The questionnaire utilized in the present research was based on a standard procedure to assess SEI, and SEL (Furnham, 2001; Neto et al., 2009; Neto, 2021a). On one page a normal distribution was presented with a mean of 100 and distribution of 6 standard deviations (−3 to +3) together with brief descriptions of the anchor scores (e.g., 55 "very little love", 100 "average", 145 "extreme love"). Next, a grid with 6 rows and 4 columns was presented. In the rows five labeled and briefly described love types and the overall-estimated love score were provided, (e.g., "Passionate love: A state of intense longing for union with another"). The five love types were based on Hatfield and Walster (1978) and Sternberg (1986b) and comprise of passionate love, companionate love, passion, intimacy, and commitment (see Table 1). After reading these descriptions, respondents were asked to indicate estimates of their own, their partners', their mothers' and their fathers' love in the columns. Thus, respondents were solicited to give 24 estimates of themselves, their romantic partner, and their parents against population norms. Higher estimated scores denoted higher estimated love.

Procedure

Respondents were recruited by two research assistants. Information about the study was provided. The survey was administered to the participants using a standard paper and pencil format. The work was conducted in accordance with the Declaration of Helsinki, and local ethical norms. Participants gave informed consent. The anonymity of the respondents was reassured. Respondents were free to withdraw from the questionnaire anytime without giving a reason. Participants were unpaid volunteers. Completing the survey took about 15 minutes. Upon completion, respondents were debriefed.

Results

Overall Results

Tables 1 and 2 present the mean ratings for self, partner, and parental love types. On the whole, respondents reported largest scores for companionate love, intimacy, and

passionate love for self, and partners; and displayed largest scores for commitment, companionate love, and intimacy for fathers, and mothers.

Table 1

Means and Standard Deviations by Gender for Estimates of Self, Partner, and Parental Love Types

Love type	Sex	You		Your partner		Your father		Your mother	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Overall love	Men	114.66	18.64	114.66	19.03	107.08	25.19	110.62	25.08
	Women	117.98	17.25	118.91	16.73	113.32	24.30	116.30	23.92
Passionate love	Men	113.39	20.82	114,66	21.93	103.24	25.06	105.13	24.69
	Women	122.08	18.99	119.75	18.63	107.26	23.56	108.53	24.53
Compassionate love	Men	115.34	22.04	118.41	19.66	107.33	26.13	108.35	25.41
	Women	124.50	16.99	120.31	19.59	113.50	23.86	116.31	23.69
Passion	Men	113.15	19.69	113.13	20.32	96.08	19.23	95.57	21.11
	Women	115.93	20.10	118.63	17.81	102.74	20.73	98.40	22.23
Intimacy	Men	113.79	22.55	117.41	20.19	105.38	25.29	107.15	24.43
	Women	122.27	17.52	120.16	18.98	110.03	25.29	111.53	24.62
Commitment	Men	111.12	22.79	115.34	20.97	115.00	29.91	115.34	29.91
	Women	118.93	20.25	115.75	20.59	118.26	25.42	121.06	24.21

Note. Passionate love = A state of intense longing for union with another; Compassionate love = Affection felt for the person with whom the life is deeply entwined; Passion = Drives that lead to physical attractiveness and sexual consummation; Intimacy = Feelings of closeness and connectedness; Commitment = One's commitment to maintain that love in the long term.

Table 2

Paired t-Tests Comparing Mean Overall and Love Styles Estimates of Self and Others

Comparison	Mean Scores		*df*	*t*
Overall love				
Self versus Partner	116.75	117.41	248	-.59
Self versus Father	116.80	111.10	249	3.29***
Self versus Mother	116.80	114.28	249	1.40
Passionate love				
Self versus Partner	119.27	117.95	248	1.26
Self versus Father	119.13	105.83	246	7.57***
Self versus Mother	119.23	107.32	247	6.87**
Companionate love				
Self versus Partner	121.39	119.64	248	1.53
Self versus Father	121.11	111.31	247	5.74***
Self versus Mother	121.11	113.49	247	4.37***

Comparison	Mean Scores		df	t
Passion				
Self versus Partner	115.06	116.69	248	-1.44
Self versus Father	115.12	100.36	246	9.09***
Self versus Mother	114.88	97.40	247	10.70***
Intimacy				
Self versus Partner	119.37	119.09	246	.24
Self versus Father	119.27	108.41	245	6.59***
Self versus Mother	119.27	110.00	245	5.52***
Commitment				
Self versus Partner	116.08	115.60	248	.37
Self versus Father	115.84	117.11	248	-.68
Self versus Mother	115.84	119.04	248	-1.77

**$p < .01$. ***$p < .001$.

Gender Differences

A multivariate analysis of variance (MANOVA) was carried out to examine whether self-estimated overall love and love types were significantly different by gender. A significant effect of gender was found, Wilks λ = .94, $F(6, 241)$ = 2.60, $p < .05$, η_p^2 = .06. Analyses of variance (ANOVAs) evidenced four significant gender effects: passionate love, $F(1, 249)$ = 9.72, $p < .01$, η_p^2 = .04; companionate love, $F(1, 249)$ = 13.43, $p < .001$, η_p^2 = .05; intimacy, $F(1, 247)$ = 10.75, $p < .01$, η_p^2 = .03; and commitment, $F(1, 249)$ = 7.20, $p < .05$, η_p^2 = .03. Women reported significantly greater estimates of themselves on passionate love, companionate love, intimacy and commitment than men.

The MANOVA of estimates of partners, Wilks λ = .97, $F(6, 241)$ = 1.39, $p > .05$, η_p^2 = .03, paternal, Wilks λ = .96, $F(6, 238)$ = 1.75, $p > .05$, η_p^2 = .04, and maternal love types, Wilks λ = .97, $F(6, 239)$ = 1.33, $p > .05$, η_p^2 = .03, did not show significant gender differences.

Self-Partner and Generational Differences

Paired *t*-tests, with Bonferroni correction, were conducted to analyze self-partner and generational differences in estimated love (see Table 2). As regards self-partner estimates, no significant differences were found. Regarding parental estimates, respondents estimated themselves as significantly greater in passionate love, companionate love, passion, and intimacy than their parents. Furthermore, participants scored themselves higher than their fathers on overall love.

Love Types Predictors of Overall Love

Next, in order to find out which of the different love types were the best predictors of global love, 4 multiple regressions were carried out. Global love estimates for self, partners, and parents were the dependent measures, and the five love types estimates were the predictors (see Table 3).

Table 3

Multiple Linear Regression Analysis Results of the Five Love Types Onto the Overall Estimate of Love

	Self		Partner		Father		Mother	
Love type	β	t	β	t	β	t	β	t
Passionate love	.16	1.98*	.31	4.24***	.39	5.29***	.43	5.72***
Companionate love	.16	1.72	.07	.92	.17	1.93	.12	1.46
Passion	.17	2.56*	.15	2.61*	-.02	-.38	-.02	-.35
Intimacy	-.01	-.07	.14	2.11*	.01	.08	.12	1.60
Commitment	.16	2.22*	.15	2.21*	-.26	3.48***	.15	1.97*
F	16.60***		34.45***		53.13***		55.75*	
R^2	.26		.42		.53		.54	

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

Self-Estimates

The results were significant for self-estimates, $F(5, 242) = 16.60$, $p < .001$, $R^2 = .26$, and passionate love, $β = .16$, $t = 1.98$, passion, $β = .17$, $t = 2.56$, and commitment, $β = .16$, $t = 2.22$, appeared as significant predictors of global love.

Partner Estimates

The results were also significant for partner's estimates, $F(5, 242) = 34.45$, $p < .001$, $R^2 = .2$, and passionate love, $β = .31$, $t = 4.24$, passion, $β = .15$, $t = 2.61$, intimacy, $β = .14$, $t = 2.11$, and commitment, $β = .15$, $t = 2.21$, appeared as significant predictors of global love.

Father Estimates

The results were significant for paternal estimates, $F(5, 239) = 53.13$, $p < .001$, $R^2 = .53$, and passionate love, $β = .39$, $t = 5.29$, and commitment, $β = .26$, $t = 3.48$, appeared as significant predictors of global love.

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Mother Estimates

The results were also significant for maternal estimates, $F(5, 240) = 55.75$, $p < .001$, $R^2 = .54$, and passionate love, $\beta = .43$, $t = 5.72$, and commitment, $\beta = .15$, $t = 1.97$, significantly predicted overall love.

Discussion

The current work broadens the literature by examining how females and males estimate self and others love types. Specifically, gender, self-partners, and generational differences, as well as the strongest predictors of global love were explored.

The MANOVAs showed that gender significantly impacted self-estimates about love, supporting our first hypothesis. On a global level, this gender difference is in line with the predictions of the parental investment theory (Schmitt, 2006; Trivers, 1972), and with cultural stereotypes (Hatfield et al., 2008). On specific levels, the results indicated that women self-estimated greater levels on passionate love, companionate love, intimacy, and commitment than men. There were no gender differences only in estimated levels of passion. In fact, the majority of studies report no gender differences in this component of love (Sumter et al., 2013).

Regarding romantic partners and parents estimates the MANOVAs displayed no significant gender effects. These findings support our second hypothesis. This is in line with SEI works, given that gender mainly impacts self-estimates of intelligence and the gender effects drop in estimates of others (Furnham & Wu, 2014; Neto, 2019; Rammstedt & Rammsayer, 2000).

Regarding self-partners differences in estimated love types, current findings indicated that participants rated their romantic partners as not significantly different from themselves. These findings also support our third hypothesis. Therefore, these findings showed that partners displayed the tendency to be similar on the love types examined. Identical results have been found regarding the most preferred love styles (Neto, 2021b). "Similarity in attitudes and values is particularly rewarding psychologically because it validates what one believes, whereas disagreement on important issues would be aversive because it fundamentally challenges one's faith" (Chen et al., 2009, p. 170). Participants did not estimate their partners more positively than themselves. According to a common saying, "love is blind". Indeed, the perceptions of romantic partners are often not based on objective reality, but are rather positive illusions, a phenomenon called "love-is-blind bias" (Swami & Furnham, 2008). Swami and Furnham (2008) reported that people tended to perceive their romantic partners as more physically attractive than themselves. Thus, the "love is blind" phenomenon did not seem to apply in the assessment of love types examined in this study. The blind love bias was also not applied to assessed intelligence (Furnham & Wu, 2014; Neto & Furnham, 2006).

As regards generational differences, children estimated themselves greater in love than their mothers and fathers. Therefore, our fourth hypothesis tended to be supported. In particular, children estimated themselves greater in passionate love, companionate love, passion, and intimacy than their parents. Only in commitment were generational differences not found. This is in line past investigation pointing out that daughters estimated themselves greater in love than their parents (Neto, 2021a). Overall, these results are consistent with SEI research, as children exhibit the tendency to consider themselves as being brighter than their parents (Furnham et al., 2012; Neto, 2019).

Lastly, which were the strongest love types as predictors of overall love was examined. The amount of variance accounted for was between 26% and 54%. In line with our fifth hypothesis, passionate love and commitment significantly predicted global love for self, partners, mothers and fathers. Present findings suggest that the best predictors of global love are colored with psychological closeness and facets of sexual love, in accordance with results of past investigation (Neto, 2021a).

This study was subject to the limitations of a cross-sectional study and its linked sampling strategy. The sample included only college students. Future research should address gender differences in love estimates in other populations, such as adolescents and older people. Love is a sensitive topic and assessing love through a self-report questionnaire may involve social desirability. Future research should measure social desirability (He et al., 2015). Longitudinal research to analyze how estimates of love develop across the life span is also needed. Future research could include other predictor variables (e.g., satisfaction with love and sociosexuality).

References

Acker, M., & Davis, M. H. (1992). Intimacy, passion, and commitment in adult romantic relationships: A test of the triangular theory of love. *Journal of Social and Personal Relationships, 9*(1), 21–50. https://doi.org/10.1177/0265407592091002

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Chamorro-Premuzic, T., Furnham, A., & Moutafi, J. (2004). The relationship between estimated and psychometric personality and intelligence sores. *Journal of Research in Personality, 38*(5), 505–513. https://doi.org/10.1016/j.jrp.2003.10.002

Chen, H., Luo, S., Yue, G., Xu, D., &, Ang, R. (2009). Do birds of a feather flock together in China? *Personal Relationships, 16*(2), 167–186. https://doi.org/10.1111/j.1475-6811.2009.01217.x

Falconi, A., & Mullet, E. (2003). Cognitive algebra of love through the adult life. *International Journal of Aging, and Human Development, 57*(3), 275–290. https://doi.org/10.2190/NPQH-MDLX-F48U-AA35

Fehr, B., & Russell, J. A. (1991). Concept of love viewed from a prototype perspective. *Journal of Personality and Social Psychology, 60*(3), 425–438. https://doi.org/10.1037/0022-3514.60.3.425

Furnham, A. (2001). Self-estimates of intelligence: Culture and gender difference in self and other estimates of both general (g) and multiple intelligences. *Personality and Individual Differences, 31*(8), 1381–1405. https://doi.org/10.1016/S0191-8869(00)00232-4

Furnham, A., & Grover, S. (2020). Correlates of self-estimated intelligence. *Journal of Intelligence, 8*(1), Article 6. https://doi.org/10.3390/jintelligence8010006

Furnham, A., & Ward, C. (2001). Sex differences, test experience and the self-estimation of multiple intelligences. *New Zealand Journal of Psychology, 30*(2), 352–358.

Furnham, A., & Wu, C. (2014). The little emperor: Chinese parents' assessment of their own, their partner's and their only child's intelligence. *High Ability Studies, 25*(2), 121–141. https://doi.org/10.1080/13598139.2014.966065

Furnham, A., Clark, K., & Bailey, K. (1999). Sex differences of multiple intelligences. *European Journal of Personality, 13*(4), 247–259.

Furnham, A., Kosari, A., & Swami, V. (2012). Estimates of self, parental and partner multiple intelligences in Iran: A replication and extension. *Iranian Journal of Psychiatry, 7*(2), 66–73.

Gignac, G. E. (2018). Socially desirable responding suppresses the association between self-assessed intelligence and task-based intelligence. *Intelligence, 69*, 50–58. https://doi.org/10.1016/j.intell.2018.05.003

Hatfield, E., & Rapson, R. L. (1993). *Love, sex, and intimacy: Their psychology, biology, and history*. Harper Collins.

Hatfield, E. & Rapson, R. L. (2005). *Love and sex: Cross-cultural perspectives*. University Press of America.

Hatfield, E., & Rapson, R. L. (1987). Gender differences on love and intimacy: The fantasy vs. reality. In W. Richetts & H. L. Gochros (Eds.), *Intimate relationships: Some social work perspectives on love* (pp. 15–26). Hayworth. https://doi.org/10.1300/J291v05n02_03

Hatfield, E., Rapson, R., & Purvis, J. (2020). *What's next in love & sex*. Oxford University Press.

Hatfield, E., & Sprecher, S. (1986). Measuring passionate love in intimate relations. *Journal of Adolescence, 9*(4), 383–410. https://doi.org/10.1016/S0140-1971(86)80043-4

Hatfield, E., & Walster, G. W. (1978). *A new look at love*. University Press of America.

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Hatfield, E., Pillemer, J. T., O'Brien, M., & Le, Y. (2008). The endurance of love: Passionate and companionate love in newlywed long-term marriages. *Interpersona, 2*(1), 35–64. https://doi.org/10.5964/ijpr.v2i1.17

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511–524. https://doi.org/10.1037/0022-3514.52.3.511

He, J., de Vijver, F., Espinoza, A., Abubakar, A., Dimitrova, R., Adams, B., Aydini, A., Atitsogbe, K., Alonso-Arbiol, I., Bobowik, M., Fisher, R., Jordanov, V., Mastrotheodoros, S., Neto, F., Ponizovsky, Y., Reb, J., Sim, S., Sovet, L., Stefenel, D., Suryani, A., Tair, E., & Villieux, A. (2015). Socially desirable responding: Enhancement and denial in 20 countries. *Cross-Cultural Research, 49*(3), 227–249. https://doi.org/10.1177/1069397114552781

Hendrick, C., & Hendrick, S. (1986). A theory and method of love. *Journal of Personality and Social Psychology, 50*(2), 392–402. https://doi.org/10.1037/0022-3514.50.2.392

Hendrick, S., & Hendrick, C. (1992). *Romantic love.* SAGE.

Hendrick, S., & Hendrick, C. (2020). Romantic love in the age of Covid-19. *Journal of Loss and Trauma, 25*(6-7), 540–543. https://doi.org/10.1080/15325024.2020.1763557

Howard, M. C., & Cogswell. J. E. (2018). The "other" relationships of self-assessed intelligence. *Journal of Research in Personality, 77*, 31–46. https://doi.org/10.1016/j.jrp.2018.09.006

Karandashev, V. (2017). *Romantic love in cultural contexts.* Springer International Publishing. https://doi.org/10.1007/978-3-319-42683-9

Karandashev, V., Zarubko, E., Artemeva, V., Evans, M., Morgan, K., Neto, F., Feybesse, C., Surmanidze, L., & Purvis, J. (2020). Cross-cultural comparison of sensory preferences in romantic attraction. *Sexuality & Culture, 24*, 23–53. https://doi.org/10.1007/s12119-019-09628-0

Lee, J. A. (1973). *The colors of love: An exploration of the ways of loving.* New Press.

Lemieux, R., & Hale, J. L. (1999). Intimacy, passion, and commitment in young romantic relationships: Successfully measuring the triangular theory of love. *Psychological Reports, 85*(2), 497–503. https://doi.org/10.2466/pr0.1999.85.2.497

Neto, F. (2012a). Compassionate love for a romantic partner, love styles and subjective well-being. *Interpersona, 6*(1), 23–39. https://doi.org/10.5964/ijpr.v6i1.88

Neto, F. (2012b). Perceptions of love and sex across the adult life span. *Journal of Social and Personal Relationships, 29*(6), 760–775. https://doi.org/10.1177/0265407512443638

Neto, F. (2019). Sex differences in estimates of lay views about reversal motivational intelligences for self and others: A replication in Brazil. *Annals of Psychology, 35*(1), 68–74. https://doi.org/10.6018/analesps.35.1.302131

Neto, F. (2021a). Estimates about love for self, romantic partners, and parents. *Marriage and Family Review, 57*(2), 111–125. https://doi.org/10.1080/01494929.2020.1740371

Neto, F. (2021b). Gender differences in estimates of love styles for self and others. *Sexuality & Culture, 25*, 1871–1884. https://doi.org/10.1007/s12119-021-09855-4

Neto, F., & Furnham, A. (2006). Gender differences in self-rated and partner-rated multiple intelligences: A Portuguese replication. *The Journal of Psychology, 140*(6), 591–602. https://doi.org/10.3200/JRLP.140.6.591-602

Neto, F., Mullet, E., & Furnham, A. (2009). Sex differences in self-estimation of lay views about intelligence among adolescents. *Personality and Individual Differences, 46*(4), 541–546. https://doi.org/10.1016/j.paid.2008.12.008

Rammstedt, B., & Rammsayer, T. (2000). Sex differences in self-estimates of different aspects of intelligence. *Personality and Individual Differences, 29*(5), 869–880. https://doi.org/10.1016/S0191-8869(99)00238-X

Reilly, D., Neumann, D. L., & Andrews, G. (2022). Gender differences in self-estimated intelligence: Exploring the male hubris, female humility problem. *Frontiers in Psychology, 13*, Article 812483. https://doi.org/10.3389/fpsyg.2022.812483

Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality and Social Psychology, 16*(2), 265–273. https://doi.org/10.1037/h0029841

Schmitt, D. P. (2006). Evolutionary and cross-cultural perspectives on love: The influence of gender, personality, and local ecology on emotional investment in romantic relationships. In R. J. Sternberg (Ed.), *The psychology of love* (2nd ed., pp. 249–273). Yale University Press.

Singelis, T., Choo, P., & Hatfield, E. (1995). Love schemas and romantic love. *Journal of Social Behaviour and Personality, 10*(1), 15–36.

Sprecher, S. & Regan, P. C. (1998). Passionate and companionate love in courting and young married couples. *Sociological Inquiry, 68*(2), 163–185. https://doi.org/10.1111/j.1475-682X.1998.tb00459.x

Sternberg, R. J. (1986a). *Beyond IQ: A triarchic theory of human intelligence.* Cambridge University Press. https://doi.org/10.1007/978-94-009-4406-0_9

Sternberg, R. J. (1986b). A triangular theory of love. *Psychological Review, 93*(2), 119–135. https://doi.org/10.1037/0033-295X.93.2.119

Sternberg, R. J., & Barnes, M. L. (1988). *The psychology of love.* Yale University Press.

Sternberg, R., & Weis, K. (2006). *The new psychology of love.* Yale University Press. https://doi.org/10.1017/9781108658225

Sumter, S., Valkenburg, P., & Peter, J. (2013). Perceptions of love across the lifespan: Differences in passion, intimacy, and commitment. *International Journal of Behavioral Development, 37*(5), 417–427. https://doi.org/10.1177/0165025413492486

Swami, V., & Furnham, A. (2008). Is love really so blind? *The Psychologist, 21*, 108–111.

Trivers, R. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man: 1871-1971* (pp. 136–179). Aldine. https://doi.org/10.4324/9781315129266-7