



Gender Differences in Estimates of Love Styles for Self and Others

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Abstract

This study investigated gender differences in how people estimate the intensity and style of love in themselves and in others. The six orientations toward love analyzed were: Eros (sex and passion), Ludus (game-playing), Storge (friendship and intimacy), Pragma (practical ventures), Mania (obsession and possessiveness), and Agape (altruistic love). The sample included 265 students (170 females and 95 males). Respondents evaluated their parents', romantic partners', and own overall love and the six love styles. Women endorsed self-estimates of storge, pragma and agape more than men did. Males assessed their female partners higher in mania. Gender differences in estimates of parental love styles were not found. Concerning self-partner differences, participants estimated their partners as being higher in ludic and manic love. Regarding generational differences, children well-tended to assess themselves higher in love than their fathers and mothers. Multiple regressions indicated that erotic, storgic and agapic love styles were significant predictors of overall love for self, romantic partners, and parents. Results are discussed with reference to previous research and some suggestions for further research are also noted.

Keywords Gender differences · Love styles · Parents · Romantic partners · Self-assessment

Introduction

Love is a fundamental aspect of human beings. This study examines self-estimated love (SEL). This framework allows to explore self-estimates of love, along with estimates of known people. Two fields of research are important to study self-estimated love. The first field is the psychological study of self-estimated intelligence (SEI),

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which is a subject area of substantial current interest (Freund & Kasten, 2012; Furnham, 2001; Furnham & Grover, 2020; Gignac, 2018). In this field past research has examined, for example, overall intelligence, as well as multiple intelligences, practical intelligences, and reversal intelligences (Furnham, 2001; Furnham & Petrides, 2004; Neto et al. 2017).

The SEL extends the SEI framework to the study of love. So, the second field concerns the psychological study of different types of love. To the best of our knowledge, only one study was conducted about SEL (Neto, 2021). In this study females rated estimates of their own, their romantic partner's and their parents' overall love and diverse love types. Several current love theories were self-assessed, and it was found that the various measures could be reduced to four independent love dimensions: psychological closeness, sexual love, obsessive love, and interpersonal distance. Psychological closeness was the most important factor, accounting for 37% of the total variance, but each of the remaining factors made a substantial contribution. However, gender differences in estimates of love were not examined as men were not included in sample. The current study extends the above study by looking at gender differences in self, partner, and parental estimates of love styles, one model of love, the Lee's colors of love (Lee, 1973).

The Lee's Colors of Love Model

The research about romantic love has predominantly concentrated in its multidimensional complexity (Clark & Mills, 1979; Hatfield & Walster, 1978; Hazan & Shaver, 1987; Karandashev et al. 2020; Sternberg, 1986). The research presented in this work employed the comprehensive love theory developed by Lee (1973, 1977, 1988). Lee (1973) proposed a classification of orientations to love, also known as the colors of love. He advanced an analogy of love styles with a color wheel, in which there are three primary colors that generate three secondary colors. The primary love styles comprised: Eros (sex and passion), Ludus (game-playing), and Storge (friendship and intimacy). Compounds of two of each of the primary love styles made up the three secondary love styles: Pragma (shopping list love, practical ventures, a compound of Storge and Ludus), Mania (obsession and possessiveness, a compound of Eros and Ludus) and Agape (altruistic, selfless love, a compound of Eros and Storge). The six love styles are considered distinct but equally valid manners of love. Lee's model concerned types of relationships instead of types of persons, and it is conceivable to be concomitantly in one relationship (e. g., Storge) and in another (e.g., Mania).

Lee's model was afterwards tested (Hendrick & Hendrick, 1986; Lasswell & Lasswell, 1976). Hendrick and Hendrick (1986) designed the Love Attitudes Scale (LAS) and their research represents a key player in this area. The LAS has been tested cross-culturally (e.g., Kanemasa et al. 2004; Neto et al. 2000; Todosijević, 2009; White et al. 2004). These works in general support the six-dimensional model as evidenced by the Love Attitudes Scale. For example, Neto et al. (2000)

investigated participants from Africa, Asia, South America, and Europe, and found that the six-dimensional model could be used to compare love attitudes cross-culturally.

The Present Study

The current study has four main objectives. The first objective is to examine whether there are gender differences in self and others estimates of overall love and love styles. As we have said earlier, in previous research this aspect was not approached as men were not included in the sample (Neto, 2021). Gender differences do not concern only self-estimations of love. Gender differences can also be analyzed in love estimates of close others, such partners, and parents. Therefore, this work seeks also to explore whether gender differences can be evidenced in estimated love of partners and parents. With this in mind, participants are asked to estimate, along with his or her love, the love of the romantic partner and of parents.

Research pointed out several gender differences in orientations to love, but the reported differences showed conflicting evidence. In the princeps study (Hendrick & Hendrick, 1986) women were higher in pragmatic, manic, and storgic love than men, and men were more ludic in love than women. In another study gender differences were found in three orientations to love in an American sample (Sprecher & Toro-Morn, 2002). Females reported higher erotic love than males, whereas males reported higher ludic and agapic love than females. In Portugal, males were more ludic and agapic than females (Neto, 1993). In China, males scored significantly higher on all dimensions than females, except on Pragma (Yang & Liu, 2007). In Serbia, females scored higher in Mania, whereas males scored higher in Ludus (Todosijević, 2009). In Spain, females scored lower in Ludus and higher in Mania and Eros than males (Rodríguez-Santero et al. 2017). In Brazil, males scored higher in Agape, Storge and Ludus than females (Cassepp-Borges, 2021; Cassepp-Borges & Ferrer, 2019).

Ludus style appears to be a consistent stable gender difference, and in this line Hendrick and Hendrick (1992) argued that “there is a consistent gender difference on Ludus, with males always reporting themselves as more ludic” (p. 70). However, in a study no gender differences in Ludus appeared in a British sample (Neto & Pinto, 2007). For the other five love styles past research points out inconsistent gender differences across diverse cultures. In sum, previous studies have demonstrated substantial gender differences in love styles, but there is no consistent findings on what styles of love differentiate men from women. However, based on past results showed in Portugal (Neto, 1993; Neto & Pinto, 2007; Neto et al. 2000), we are going to test whether males self-estimates are more ludic and agapic lovers than females.

Past research on SEI showed that differences in estimates of intelligence are higher in assessing the self than in assessing others (e.g., relatives, partners, famous people) (Furnham & Chamorro-Prezumic, 2005; Furnham & Ward, 2001). Furnham et al. (1999a, b) showed that gender differences emerged in estimates of own but not of parents' intelligence.

The second objective is to analyze whether there are self-partners differences in estimates of love. Previous research showed that partners were good predictors of each others' love orientations (Hendrick et al. 1988), and there is research that showed similarity and differences of partners' love styles. Hendrick, et al. (1988) found similarity on Eros, Storge, Mania, and Agape. Another partners' study was conducted by Davis and Latty-Mann (1987). Partners showed considerable similarity on several of the love styles, including Eros, Storge, Agape, and Ludus. These findings were like those of Hendrick et al. (1988), except for the emergence of the Ludus and disappearance of a Mania similarity. Waller and Shaver (1994) showed that partners do not look like one another on ludic and manic love. Morrow et al. (1995) showed also that partners' scores on Eros, Storge, Pragma, and Agape tended to share similar attitudes regarding love, except for Ludus and Mania. In sum, these results support the idea that partners tend to be similar on most love styles, except Mania and Ludus.

The third objective is to examine whether there are generational differences in self-estimated love. Previous research showed that three generations of females did not report large similarities in most orientations to love (Neto, 2001). The effect of generation was significant on Eros, Storge, Pragma, and Agape. In particular, daughters revealed higher erotic style than their mothers, while mothers showed higher scores in storgic, pragmatic and agapic styles than their daughters. However, a surprising finding was that grandmothers did not differ significantly from their daughters and granddaughters on the Eros. This result suggests that an erotic orientation to love covers the life span, rather than being broadly restricted to youthful years. More recently, daughters estimated themselves higher in psychological closeness, sexual love, and obsessive love than their fathers and mothers (Neto, 2021). Therefore, in this study about self-estimates of love, daughters tended to evaluate themselves higher than their parents.

Lastly, the fourth objective is to examine which orientations to love predict strongly overall love, providing insight into what lay people believe to establish love. Past research showed that the preferred love styles of Portuguese college students displayed that the most preferred love styles were Eros, Storge, and Agape, and the least preferred was Ludus (Neto, 1993). Three generations of Portuguese women showed that the most preferred love styles were Agape, Storge and Eros, and the least preferred was Ludus (Neto, 2001). In other countries, such Canada, England, India, and United States were found similar findings (Cramer et al. 2015; Neto & Pinto, 2007; Waller & Shaver, 1994).

In short, this study examines gender differences in self and other estimates of overall love and love styles and seeks to evidence the strongest predictors of such estimates. Five hypotheses are going to be tested.

H₁ There will be gender differences in self-estimates about love, in particular males will estimate to be more ludic and agapic lovers than females.

H₂ There will be no gender differences in partners and parents estimates about love.

H₃ Participants would rate their partners higher on ludic and manic love than themselves.

H₄ Participants would estimate themselves higher on love styles than their parents.

H₅ It is expected that eros, storge, and agape will be significant predictors of overall love for self, partners, and parents.

Method

Participants

The inclusion criteria were to be 18 years old or higher, women and men in heterosexual romantic relationships, and Portuguese nationality. The sample included 265 undergraduates from University of Porto (170 women and 95 men), all of whom with the Portuguese nationality. The marital status of the sample was single not living with a spouse or partner. Average age was 19.80 years ($SD=2.17$; range: 18–30 years). Women ($M=19.65$; $SD=1.96$) and men ($M=20.08$; $SD=2.48$) did not differ in age, [$F(1, 264)=2.48$, $p=0.12$]. Mean religiosity was 2.92 ($SD=1.83$), and mean political orientation was 4.23 ($SD=1.20$) (Table 1).

Measures

The Estimating Love Scale (ELS) used in this study was inspired by the surveys which evaluated SEI and love estimates (Furnham, 2000; Neto, 2021; Neto et al. 2009). The questionnaire showed a normal distribution of love scores, and titles

Table 1 Characteristics of the sample

Sociodemographic characteristics	N=265	
	Mean (SD) or n (%)	Ranges
Mean age	19.80 (2.17)	18–30
Gender		
Women	170 (64.2%)	
Men	95 (35.8%)	
Marital status		
Single	265 (100%)	
Nationality		
Portuguese	265 (100%)	
Mean religiosity	2.92 (1.83)	1–7
Mean political orientation	4.23 (1.20)	1–7

Religiosity: 1 = “not at all”, 7 = “very religious”. Political orientation: 1 = “very right wing”, 7 = “very left wing”

Table 2 Sex differences in estimates of self, partner, and parental love styles

Love style	Gender	You		Your partner		Your father		Your mother		
		M	SD	M	SD	M	SD	M	SD	
Overall love	Men	114.67	18.45	115.50	19.14	107.00	25.06	107.00	25.06	
	Women	118.26	17.23	119.08	16.83	113.27	23.97	113.27	23.97	
Eros style	Seeking ideal partner with an emphasis on physical beauty, strong physical attraction, emotional intensity									
	Men	104.89	20.52	104.89	20.87	94.17	23.01	94.17	23.01	
	Women	104.42	20.16	106.12	19.72	98.27	19.49	98.27	19.49	
Ludus style	Person of many conquests with little long-term involvement									
	Men	84.51	25.88	85.83	26.54	76.00	23.35	76.00	23.35	
	Women	80.34	24.39	86.60	24.82	80.18	24.51	80.18	24.52	
Storge style	Affection that develops slowly and friendly love that culminates in a long-term relationship									
	Men	109.78	21.50	113.00	19.88	105.17	26.14	105.17	26.14	
	Women	117.38	18.41	114.02	19.58	107.91	24.15	107.91	24.15	
Pragma style	Practical and rational relationship									
	Men	93.47	22.93	97.83	23.54	92.67	24.35	92.67	24.35	
	Women	102.12	22.03	101.78	22.67	99.55	23.57	99.55	23.57	
Mania style	Obsessive, jealous involvement, with emotional extremes									
	Men	86.03	26.54	95.50	26.46	78.17	21.47	78.17	21.47	
	Women	83.82	25.84	83.67	26.38	78.51	23.76	78.51	23.76	
Agape style	Careful and gentle desire to give to the other person without expecting retribution									
	Men	112.23	24.55	112.50	24.76	100.17	24.99	100.17	24.99	
	Women	117.92	19.74	113.67	21.01	106.45	24.69	106.45	24.69	

Mean = 100 and Standard Deviation = 15

against each score. Thus, 55 was labelled *very little love*, 70 *little love*, 85 *low average*, 100 *average*, 115 *high average*, 130 *much love*, and 145 *extreme love*.

Then, participants were presented a grid with seven rows and four columns. The first row was called “overall love” and the others 6 taken from love styles theory (Lee, 1973). There was a short description of the six orientations to love: Eros, Ludus, Storge, Pragma, Mania, and Agape (see Table 2). The columns were called “You”, “Your Partner”, “Your Father”, and “Your Mother”. Therefore, participants were asked to make 28 estimates of themselves and others against population norms. Greater scores of the estimates indicated greater estimated love.

Participants were also asked background information: gender, age, nationality, instruction, sexual orientation, currently in a relationship, religiosity on a 7-point scale (1 = “not at all”, 7 = “very religious”), and political orientation on a 7-point scale (1 = “very right wing”, 7 = “very left wing”).

Procedure

The survey was completed using pencil and paper. It was administered in Portuguese. Participants were recruited by the help of research assistant at a university. Participation was voluntary and anonymous. Information about the study was provided and any questions were answered. After consent was obtained, participants completed the questionnaire. Participants took about 15 min to complete the survey. Upon completion, participants were debriefed.

Data Analysis

Multivariate analyses of variance (MANOVAs) were performed to evidence whether there were significant gender differences in self-estimates, estimates of partner and parental overall love and love styles. When there was a significant effect in the MANOVAs, ANOVAs for each dependent variable were calculated subsequently. *T*-tests (with Bonferroni corrections) were calculated to analyze self-partner and generational differences in estimated love. Multiple regression analyses were performed to evidence the strongest predictors of overall love estimates.

Results

Overall Results

Tables 2 and 3 present the mean ratings for self, partner, and parental love styles. Overall, participants in the present sample showed most endorsement of Agape and Storge, and least endorsement of Ludus and Mania for self, partners, fathers, and mothers. The third highest scores were Eros for self and partners, and Pragma for both parents.

Gender Differences in Estimates

A MANOVA was computed to determine whether there were significant gender differences in self-estimates of overall love and love styles. The results showed a significant effect of gender, Wilks $\lambda=0.92[F(7, 254)=2.97, p<0.01, \eta_p^2=0.08]$. ANOVA showed three significant effects: storgic love, $[F(1, 260)=9.02, p<0.01, \eta_p^2=0.03]$; pragmatic love, $[F(1, 260)=8.92, p<0.01, \eta_p^2=0.03]$; and agapic love, $[F(1, 260)=4.16, p<0.05, \eta_p^2=0.02]$. Females estimated themselves significantly higher on storgic, pragmatic, and agapic love styles than males.

Another MANOVA was also conducted for estimates of love styles partners, and parents. The MANOVA provided a significant effect of gender for partners, Wilks $\lambda=0.93[F(7, 254)=2.87, p<0.01, \eta_p^2=0.07]$. ANOVA only showed one significant effect: manic love $[F(1, 260)=11.79, p<0.001, \eta_p^2=0.04]$. The results revealed that females rated their male partners as having lower manic love. A MANOVA of estimates of paternal, Wilks $\lambda=0.96[F(7, 247)=1.31, p>0.05, \eta_p^2=0.04]$, and

Table 3 Paired *t*-tests comparing mean overall and love styles estimates of self and others

Comparison	Mean scores		Df	t
Overall love				
Self versus Partner	116.93	117.58	263	-.57
Self versus Father	116.98	110.98	264	3.58**
Self versus Mother	116.98	114.15	264	1.63
Eros				
Self versus Partner	104.64	105.63	261	-.91
Self versus Father	104.56	96.64	263	5.52***
Self versus Mother	104.56	93.21	262	7.84***
Ludus				
Self versus Partner	81.69	86.15	262	-3.09**
Self versus Father	81.90	78.83	260	2.11
Self versus Mother	81.90	74.13	260	5.92***
Storge				
Self versus Partner	115.00	113.52	262	1.41
Self versus Father	115.00	106.96	262	4.83***
Self versus Mother	114.89	108.98	263	3.80***
Pragma				
Self versus Partner	99.49	100.40	262	-.78
Self versus Father	99.20	97.54	261	1.11
Self versus Mother	99.38	96.38	264	2.12
Mania				
Self versus Partner	83.71	87.79	262	-3.05**
Self versus Father	83.65	78.63	261	3.23**
Self versus Mother	83.71	78.60	263	3.45**
Agape				
Self versus Partner	116.14	113.01	263	2.51
Self versus Father	115.97	104.73	262	6.67***
Self versus Mother	116.19	107.75	264	5.02***

Mean = 100 and Standard Deviation = 15

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

maternal love styles, Wilks $\lambda = 0.97$ [$F(7, 250) = 0.94$, $p > 0.05$, $\eta_p^2 = 0.03$] showed no significant gender differences.

Self-partner and Generational Differences

Paired *t*-tests, with Bonferroni correction, were conducted to analyze self-partner and generational differences in estimates of love. Results are presented in Table 3. Regarding self-partner estimates, respondents evaluated their partners as significantly more ludic and manic in love than themselves. Concerning parental estimates, participants rated themselves as significantly higher in overall love, eros, storge, mania, and agape than their fathers. They scored themselves higher than their

mothers on eros, ludus, storge, mania, and agape. These findings tend to support the fourth hypothesis.

Love Styles Predictors of Overall Love

Next, in order to find out which of the different love styles were the best predictors of overall love, four multiple regression analyses were calculated. Overall love estimates for self, partners, fathers, and mothers were the criterion variables, and the six love styles estimates were the predictor variables. These findings are shown in Table 4.

Self-estimates

The regression for self-estimates was significant, $F(6, 261)=10.20$, $p<0.001$, $R^2=0.19$, and eros ($\beta=0.27$, $t=4.50$), storge ($\beta=0.17$, $t=2.81$), and agape ($\beta=0.19$, $t=3.15$) predicted significantly overall love.

Partner Estimates

The regression for partner's estimates was also significant, $F(6, 258)=18.21$, $p<0.001$, $R^2=0.30$, and erotic ($\beta=0.12$, $t=2.14$), ludic ($\beta=-0.15$, $t=-2.37$), storgic ($\beta=0.23$, $t=3.76$), and agapic ($\beta=0.32$, $t=5.32$) love styles predicted significantly overall love.

Table 4 Regressions of the six love styles onto the overall estimate of love

	Self		Partner		Father		Mother	
	β	t	β	t	β	t	β	t
Eros	.27	4.50***	.12	2.14*	.22	3.51**	.25	4.20***
Ludus	-.10	-1.63	-.15	-2.37**	-.13	-2.30*	-.01	-.02
Storge	.17	2.81**	.23	3.76***	.26	4.05***	.20	3.15**
Pragma	-.07	-1.14	.06	1.09	.06	1.09	.04	.61
Mania	-.02	-.31	.02	.34	-.03	-.57	.01	.23
Agape	.19	3.15**	.32	5.32***	.30	4.96***	.31	4.99***
F	10.20***		18.21***		25.97***		28.64***	
R ²	.19		.30		.39		.41	

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

Father Estimates

The regression for paternal estimates was significant, $F(6, 254)=25.97$, $p < 0.001$, $R^2=0.39$, and Eros ($\beta=0.22$, $t=3.51$), Ludus ($\beta=-0.13$, $t=-2.30$), Storge ($\beta=0.26$, $t=4.05$), and Agape ($\beta=0.30$, $t=4.96$) predicted significantly overall love.

Mother Estimates

The regression for maternal estimates was also significant, $F(6, 257)=28.64$, $p < 0.001$, $R^2=0.41$, and eros ($\beta=0.25$, $t=4.20$), storge ($\beta=0.20$, $t=3.15$), and agape ($\beta=0.31$, $t=4.99$) predicted significantly overall love.

Discussion

This study extended the literature by exploring how women and men perceive their own love, their partners love, and their parents love. Through the estimates of self, romantic partners, fathers, and mothers were researched specific issues, such as gender differences, self-partners differences, generational differences, and predictors of overall love.

Our first hypothesis was not supported, as the MANOVA showed significant effects of gender in self-estimates about love, but current findings suggested that females rated themselves higher than males for storgic, pragmatic, and agapic loves. Even if there are studies inconsistent about the relationship between gender and storge and pragma, there are studies showing that women provided significantly higher scores in storge and pragma than men (Hendrick & Hendrick, 1986; Hendrick et al. 1988; Rotenberg & Koro, 1995). Hendrick and Hendrick (1991) suggested that gender differences in practical and friendship love orientations reflect different reproductive strategies inherent to sociobiological theory. "A more pragmatic orientation toward love by young females should, on the average, enhance their reproductive success because it will likely take into account both genetic and economic fitness of a potential partner" (Hendrick & Hendrick, 1991, p. 211).

According to Regan (2016), Agape results with respect to gender are inconsistent: some investigation pointed out no gender differences concerning agapic love; other studies showed that men scored higher in agapic love; and other research indicated that women scored higher in agapic love than men. In the current study women showed more willingness to assume an unconditional, other-oriented approach to love than men. Women might be more agapic because they are socialized to be care-takers (Basow, 1992).

Our second hypothesis was partially supported, as the MANOVA showed no significant effects of gender in parents estimates about love, as hypothesized, but in terms of partners estimates the MANOVA showed a significant effect of gender. However, only a significant difference in the manic love style was found.

Males rated their female partners as being significantly higher in manic love. A previous study showed that females gave higher partner estimates on sexual love and lower on psychological closeness (Neto, 2021). Current findings suggested no gender differences in estimates of fathers and mothers love. These findings are consonant with SEI studies, as gender differences occurs predominantly in one's own intelligence estimates and this effect drops when estimating others (Furnham, 2001; Neto & Furnham, 2006; Rammstedt & Rammseyer, 2000). On research on SEI (e.g., Furnham et al., 1999b, 2012), there were no gender differences in estimates of parents.

The least preferred love styles, ludus and mania, appeared as significantly differentiating the self and the romantic heterosexual partners estimates. Therefore, the third hypothesis was supported given that participants rated their partners higher on ludic and manic love than themselves. Ludus is the love style involving game-playing, having more than one love partner at the same time. Mania indicates uncertainty and relationship insecurity. Interestingly, current findings are consonant with previous research on love styles (Davis & Latty-Mann, 1987; Hendrick et al. 1988; Morrow et al. 1995; Waller & Shaver, 1994). A possible explanation for these findings is the difficulty to maintain a relationship “when both patterns avoid commitment (Ludus), or when both partners are dependent and possessive (Mania)” (Waller & Shaver, 1994, p. 271).

The fourth hypothesis about generational differences tended to be supported, as children reported the tendency to evaluate themselves higher in love than their parents. Namely, children perceived themselves higher in erotic, storgic, manic and agapic love than their parents. Furthermore, children rated themselves higher in overall love than their fathers and in ludic love than their mothers. So, only pragma did not show generational differences. These findings are consonant with previous research which showed that daughters rated themselves higher in love than their mothers (Neto, 2021). In three of the four dimensions of love examined in that study (psychological closeness, sexual love, and romantic obsession) daughters self-estimated themselves higher than their parents. Current findings are globally in line with those from SEI, as children tend to think that they are brighter than their parents (Furnham, 2001; Neto, 2019), replicating the Flynn effect.

Finally, it was tested which of the love styles estimates predicted overall love using multiple regressions. The amount of variance accounted for was between 19 and 41%. Eros, storge and agape predicted significantly overall love for self, partners, and parents. Higher overall love was predicted by higher erotic, storgic and agapic love styles. Hence, it seems that people think that eros, storge and agape love styles constituent the heart of romantic love. From the current results concerning estimates of self, partners, and parents it is suggested that the strongest predictors of overall love were tinged by psychological closeness and sexual love aspects, in consonance with findings of previous research (Neto, 2021). This provides support for the fifth hypothesis.

Furthermore, ludic love style predicted also negatively overall love for partners and fathers, that is, lower ludic love was related to higher overall love for partners and for fathers. These results suggest that participants did not believe that three orientations to love (ludus, pragma and mania) were positively connected with overall

love. In addition, it was observed that the ratings obtained by these three love styles were below the average. This is not consonant with SEI studies, as in nearly all SEI works, most of the scores are above average (the Lake Woebegone effect) (Furnham, 2001; Neto et al. 2009).

There are a number of limitations in this study. First, the sample included college students most of whom have shared ages, educational levels, and socioeconomic status. Given these common characteristics it will be important to test if the current findings are also suited to populations with different ages, educational levels, and socioeconomic status. Second, even if the sample included a sufficient number of participants, it was a bit small, considering the use of MANOVA analysis. Third, the data collected in this study did not allow to relate the estimates of love to the actual love owned by the participants. Future research may be conducted to compare directly estimates with the attitudes toward love from participants, their partners, and parents. The findings of the current study could also be extended by including other predictor variables (e.g., self-disclosure, sensation seeking, social support, subjective well-being, and love satisfaction).

Declarations

Conflict of interest Author declares that he has no conflict of interest.

Ethical Standards All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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