Polish adaptation of The Love Attitudes Scale: Short Form

Polska adaptacja The Love Attitudes Scale: Short Form – Skróconej Skali Postaw Wobec Miłości[1]

Piotr Janeczek[a]

[a] *Piotr Janeczek, https://orcid.org/0000-0003-3780-6983,*
Faculty of Pedagogy and Psychology, Department of Psychology, Jan Kochanowski University in Kielce

Abstract: The present study was conducted to determine the psychometric properties of the Polish version of The Love Attitudes Scale: Short Form (Hendrick et al., 1998). The scale is used to measure the love styles Eros, Ludus, Storge, Pragma, Mania, Agape based on John Lee's theory. The mean age of the subjects was 23 years (SD = 4.09). To determine the psychometric properties of the scale, an exploratory factor analysis and confirmatory factor analysis (RMSEA = 0.0425; CFI = 0.938; TLI = 0.928) were performed. The reliability of the Polish version of The Love Attitudes Scale: Short Form was measured using Cronbach's Alpha (0.67 for the total tool, for subscales 0.61 to 0.81) and McDonald's Omega (0.69 for the total tool, for subscales 0.66 to 0.82). An external validity analysis was also conducted using the Attachment Styles Questionnaire, the Sexual Satisfaction Questionnaire, Rosenberg Self-Esteem Scale and the Well-being Questionnaire. Based on the results, the Polish version of The Love Attitudes Scale: Short Form can be considered a tool with good psychometric properties recommended for use in scientific research.
Keywords: love, Polish adaptation, love styles, The Love Attitudes Scale: Short Form

Abstrakt: Niniejsze badanie zostało przeprowadzone w celu określenia właściwości psychometrycznych polskiej wersji The Love Attitudes Scale: Short Form (Hendrick i in., 1998) – Skróconej Skali Postaw Wobec Miłości. Skala służy do pomiaru stylów miłości Eros, Ludus, Storge, Pragma, Mania, Agape w oparciu o teorię Johna Lee. W badaniu wzięły udział 403 osoby (354 kobiety, 49 mężczyzn). Średnia wieku osób badanych wyniosła 23 lata (SD = 4,09). Aby określić właściwości psychometryczne wykonano eksploracyjną analizę czynnikową, konfirmacyjną analizę czynnikową (RMSEA = 0,0425; CFI = 0,938; TLI = 0,928). Rzetelność polskiej wersji The Love Attitudes Scale: Short Form zmierzono przy wykorzystaniu Alfy Cronbacha (0.67 dla całości narzędzia, dla podskal od 0.61 do 0.81) oraz Omegi McDonalda (0.69 dla całości narzędzia, dla podskal od 0.66 do 0.82). Przeprowadzono także analizę trafności zewnętrznej za pomocą Kwestionariusza Stylów Przywiązaniowych, Kwestionariusza Satysfakcji Seksualnej, Skali Samooceny SES M. Rosenberga oraz Kwestionariusza Dobrostanu. Na podstawie uzyskanych wyników można uznać Skróconą Skalę Postaw Wobec Miłości jako narzędzie posiadające dobre właściwości psychometryczne rekomendowane do użycia w badaniach naukowych.
Słowa kluczowe: miłość, polska adaptacja, style miłości, Skrócona Skala Postaw Wobec Miłości

Introduction

Love accompanies a person throughout the whole life. It can be commonly understood as an affection shown to another person with whom a romantic relationship is formed. It can also be understood as a fondness for a specific object of interest, or as a strong bond connecting people close to each other. According to that the first relationship in a people's life, i.e. the relationship with their parents, is important for the development, their social skills

and their mental health (Matysiak-Błaszczyk et al., 2020). Significant correlations between the age and attitudes toward love among those from either a full or single-parent family (those from a full family may tend to have a more grounded view of love, which is characterized by low dynamics of change over time), have also been noticed as well as the important role of love styles in maintaining family stability and sustainability (Janeczek and Lesiewicz, 2020, Shaho-

visi, 2019). The important role of love relationships for a person's health and well-being should also be mentioned (Soares et al., 2020, Oravecz et al., 2020, Gómez-López et al., 2019). Among the studies, the perception of love as an important element of the relationship, which strengthen the quality of the marriage and the feeling of satisfaction with it was also confirmed (Yoo and Joo, 2022, Salayani et al., 2020, Bakhtiari et al., 2019). Although love has a universal character, approximating its nature is a challenge for representatives of many fields. Not only poets, philosophers but also psychologists have been grappling with the diversity and a kind of elusiveness of love for many years (Xia et al, 2023, Kozakiewicz et al, 2022, Tenhouten, 2021, Jaworska et al, 2019). Love can be considered both in the context of feelings toward the world, objects and in the context of romantic relationships with others. By synthesizing both philosophical and psychological theories, love can be understood as one of the basic needs or as a drive for action (Hendrick and Hendrick, 2019, Jankowska, 2010). Wojciszke (1994) however willingness to study love can be compared to impossibility of studying a hurricane by catching a small part of it in a jar – after all, love as an emotion can be shown in many ways, and the very definition of love can differ depending on how a person perceives it. For example, Fromm (2004) considered love as a characteristic that defines a person's attitude toward the world and distinguished five types of love, while Sternberg (1997), favoured three factors of love (passion, intimacy, commitment) and described six types of love. Moreover, the motives leading to love may have different backgrounds and may consist of many assumptions.

1. The concept of love and ways of perceiving it – the expanded conceptualization

Love in everyday life or as well as popular culture is able to take various forms – there is selflove, for one's neighbour, for one's homeland or for nature or the world per se. Love, regardless of the direction adopted by a person, is able to take many forms of showing it, that are activated in situations and conditions individually defined for that person. The aforementioned Fromm (2004), recognizing love as an attitude towards the world, distinguished: brotherly love, maternal love, erotic love, love for oneself and love for God. He also included love as an important component of human personality (From, 2004, Yoshino, 2020).

To illustrate the diversity of the characterization of love, it is also worth recalling the history of literature. The view of love and the way it was characterized varied and depended on the literary era occurring in each period. For example, for the Romantics, love was a goal that could bring both happiness and torment at the same time (example: "Forefathers' Eve, Part IV", Adam Mickiewicz) while the poets of the Renaissance focused on love as a pleasure driven by the biological needs of a man (example: "Ballade de la grosse Margot", François Villon).

As already mentioned, love is also attempted to be understood on philosophical grounds. Starting with ancient thinkers who tried to define the meaning of love in human life. An example is Plato's attempts to characterize love – these include the considerations in the "Symposium" and the "Phaedrus" (Clausen, 2022, Tenhouten, 2021, Domagala, 2009).[2]

---

2   "Symposium" by Plato is a cultural asset that is so important for attempts to present the essence of love, because it shows the multiplicity of possibilities for perceiving it. This is because this work presents the dialogue of six sages – Phaedrus, Pausanias, Erichimachos, Aristophanes, Agathon and Socrates. The first of these, Phaedrus, regarded love as a force capable of determining a person's well-being and happiness. Pausanias saw love as the existence of two Eroses – a Common Eros (love centered on carnality, imperfect) and a Heavenly Eros (feeling without blemish). Love as something heterogeneous was also presented by Erichimachos, saying that love can take two forms – good and bad. According to Erichimachos, each of them is capable of projecting itself onto a person in a specific and attributed way (Domagala, 2009). Aristophanes observed that love is capable of being a kind of bonding agent, while Agathon recognized love as a source of happiness. The last-mentioned speaker, Socrates, made an ordering and rationalization of all and pointed out the necessity of "proper praise" of Eros, an attitude that exposes falsity and excessive sublimity (Domagala, 2009).

The German philosopher Arthur Schopenhauer described love as a feeling of very great power that can bring very sudden and drastic changes in a person's life. He distinguished two mutually exclusive types of love – erotic love and agape (altruistic) love (Ellis, 2017, 2021). Erotic love is described by him as selfish, connected with lust (carnality as the driving force) and hence determining selfishness and wickedness. According to Schopenhauer, this type of love is the root of all suffering. Agape, on the other hand, is a type of love that can bring salvation – it is characterized by sympathy, the ability to sacrifice for the other person, and sincere compassion (Ellis, 2017).

Maria Ryś (2016) emphasizes that love has been increasingly perceived as not only a feeling, but also a relationship and attitude. Attitude consists of three elements: a cognitive element which is knowledge about the other person, an emotional element as a feeling, and a behavioural element as a disposition to take certain actions. Love is seen as "an active, positive attitude toward the other person" (Ryś, 2016, p. 58). There is also a desire to affirm the existence of the person one loves and his or her development. The spiritual nature of love is also emphasized due to the penetration of love into the interior of a person thus enabling one to see the richness and beauty of a person.

2. John Lee's model of love – the concept of six types of loves

The evocation in the previous paragraph of various concepts and ways of perceiving love, as well as ways of showing it, was not accidental. This is because cultural resources and the state of knowledge have significantly translated into the development of the theory that forms the basis of the Love Attitudes Scale: Short Form, which is the concept of six types of love developed by John Alan Lee. His theory was not so much an attempt to define love, but to identify the different types of love and ways of showing them (Lee, 1977). Lee, in order to distinguish the types of love and characterise them in the most reliable way, analysed many cultural sources from all periods (as he said: from Plato and Ovid to the authors who were creating at the time of his formation of the styles of

love) (Lee, 1997). The next step was for competent judges to analyse his prepared descriptions of love constructed in mutually exclusive ways. As a result, six types of love were distinguished – Eros, Ludus and Storge constituting primary styles of love, and Mania, Pragma and Agape constituting secondary styles of love (i.e., styles of love formed from a combination of primary styles) (Michalska et al., 2023, Cassepp-Borges, 2021, Meskó et al., 2021, Raffagnino and Puddu, 2018, Lee, 1973). Eros is a style of love characterized by a person's search for a partner who will respond to a desired type of beauty. Mutual sexual attraction and the willingness to provide pleasure (not only sexual) to each other plays an important role here, and falling in love at first sight is even a dreamlike way to fall in love (Lee, 1977; Jankowska, 2010). The Ludus style of love is associated with capturing love as something like play (Michalska et al., 2023). The length of the relationship in the case of this style of love is described as short, and it is mostly focused on the sexual relationship. There is no jealousy, while the Ludus style is distinguished by the desire to dominate the partner and prove superiority over him or her (Lee, 1977, Karandashev, 2022). For the Storge style of love, a feeling that develops in a gradual, slow manner is characteristic. This is because the partners care about getting to know each other thoroughly, creating a friendly atmosphere and relationship, and making a long-term commitment to each other. The sexual aspect of love is relegated to be the background of empathy, friendship and the aforementioned commitment (Lee, 1977). A very emotional, intense, jealousy-filled style of love is Mania. Love takes the form of obsessive interest in the other person as the partner is the object of total focus (Lee, 1977, Karandashev, 2022). In the case of the Mania style of love, attempts to hold the partner close at all costs are characteristic – it is concluded that these behaviours may stem from the fear of losing the partner (Jankowska, 2010). Agape is a style of love at which a person treats showing love as his duty without expecting reciprocity. It is dominated by altruism and the need to do good, to help one's partner selflessly (Lee, 1997). Pragma captures love for another person and a relationship with him or her, as a decision made on the account of consciously

analysed factors such as the economic, demographic and other (among which may be education or faith) that value a partner as a person with whom it pays to enter into a relationship (Lee, 1977). It is viewed as an investment in the future considered in terms of gains and losses.

3. Author's studies

3.1. Aim of the study

The research presented in this article was conducted to determine the psychometric properties of the Polish version of The Love Attitudes Scale: Short Form. The original version of the scale shows satisfactory psychometric properties (Hendrick et al., 1998). It contains six subscales defining a particular type of love: Eros, Ludus, Storge, Pragma, Mania, Agape (Hendrick et al., 1998).

3.2. Method

3.2.1. Participants

The sample included 403 subjects (354 women, 49 men). The average age of the respondents was 23 years (SD = 4.09). The youngest person surveyed was 18 years old, while the oldest was 50 years old. The survey was individual, and respondents answered using a form designed on the Google Forms website - a link to it was posted on social networks on a number of groups designed for this purpose. The subjects were briefed at the outset on the purpose of the survey, its planned course, its anonymity and the possibility to stop taking part at any time.

3.2.2. Measures

Five questionnaires were used to determine the psychometric properties of the Polish version of The Love Attitudes Scale: Short Form.

The Love Attitudes Scale: Short Form (Hendrick et al., 1998) was translated into Polish with the cooperation of three independent bilinguals: a psychologist, a psychology student and one English philologist. The questionnaire contains six subscales defining a given style of love: Eros, Ludus, Storge, Pragma, Mania, Agape. The subscales in the Polish version analogously to the original contain four questions, which are answered using a five-point scale, in which: 1 – *strongly agree*, while 5 – *strongly disagree*.

The Attachment Styles Questionnaire (Plopa, 2005) is a measure constructed of three subscales measuring the following attachment styles: secure attachment style, anxious-ambivalent attachment style and avoidant attachment style. Each subscale contains eight questions, which respondents answered using a seven-point scale, where 1 means – *strongly disagree* and 7 means – *strongly agree*.

The Sexual Satisfaction Questionnaire (Plopa, 2017) is a 10-item measure aiming sexual satisfaction consisting of three subscales (intimacy, fondling, sex) and an overall scale that is the sum of the three subscales mentioned above. The answers that respondents marked were assigned values from 0 to 5, with 0 meaning – *none*, and 5 meaning *maximum satisfaction*.

Rosenberg Self-Esteem Scale in its Polish adaptation (Dzwonkowska, Lachowicz-Tabaczek, Laguna, 2007) is a tool that measures the general level of self-assessment of the subject. It consists of 10 items to which respondents answer using a four-point scale, with 1 – *strongly agree*, and 4 – *strongly disagree*.

The Psychological Well-Being Scales questionnaire in its Polish adaptation (Karaś, Cieciuch, 2017) has a general scale and six subscales to measure six dimensions of well-being: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. A shortened version containing 18-items was used in this study. Responses were given on a six-point scale, in which 1 means – *strongly disagree*, while 6 means – *strongly agree*.

3.2.3. Statistical analysis

To determine the psychometric properties of the Polish version of The Love Attitudes Scale: Short Form questionnaire, Jamovi software (counting reliability, exploratory factor analysis, confirmatory factor analysis) and IBM SPSS (r-Pearson correlations) was used.

3.3. Results

3.3.1. Reliability analysis

The reliability of the Polish version of The Love Attitudes Scale: Short Form and its six subscales was measured using Cronbach's Alpha and Mc-Donald's Omega.

Cronbach's alpha was 0.67 for the overall instrument, 0.8 for the Eros subscale, 0.61 for the Ludus subscale, 0.78 for the Storge subscale, 0.73 for the Pragma subscale, 0.65 for the Mania subscale, and 0.81 for the Agape subscale, respectively.

McDonald's Omega was 0.69 for the overall instrument, 0.81 for the Eros subscale, 0.66 for the Ludus subscale, 0.8 for the Storge subscale, 0.74 for the Pragma subscale, 0.65 for the Mania subscale, and 0.82 for the Agape subscale.

3.3.2. Factor structure of the Love Attitude Scale: Short Form

In order to determine the psychometric values of the Polish version of the LAS: Short Scale, a factor structure analysis was conducted. Based on the assumption of not performing a large number of calculations on the same samples, the subjects were divided into two groups, to which they were randomly assigned (van Prooijen, van der Kloot, 2001). According to the obtained results of the exploratory factor analysis (EFA) conducted on the first group, and after confronting them with the assumptions of the Kaiser criterion, as well as with the scree plot, six factors overlapping with the theoretical background of the LAS: Short Scale were extracted. The following types of love were distinguished: Eros (1), Ludus (2), Storge (3), Pragma (4), Mania (5), Agape (6) (Hendrick et al., 1998) (Table 1). Confirmatory factor analysis (CFA) was conducted based on the results obtained in the second group (X2 = 324; df = 237; p<.001), and goodness-of-fit indices showed a good fit to the data (RMSEA = 0.0425; CFI = 0.938; TLI = 0.928) (Figure 1) (Xia and Yang, 2019).

3.3.3. External consistency

To assess the external validity of the Polish version of The Love Attitudes Scale: Short Form questionnaire the Attachment Styles Questionnaire (Plopa, 2005), the Sexual Satisfaction Questionnaire (Plopa, 2017), the Rosenberg Self-Esteem Scale (Dzwonkowska et al., 2007) and the Psychological Well-Being Scales (Karaś and Cieciuch, 2017) were used. The results confirm the external validity of the questionnaire (Table 2, 3, 4).

The results of correlation analysis between love styles and attachment styles presented in Table 2 show a positive and statistically significant relationship between: love style Eros and secure attachment style, love style Ludus and avoidant attachment style, love style Mania and avoidant attachment style, love style Mania and anxious-ambivalent attachment style, love style Agape and secure attachment style, and love style Agape and anxious-ambivalent attachment style. The results of the correlation analysis between love styles and attachment styles presented in Table 2 show a negative and statistically significant relationship between: the Eros love style and anxious-ambivalent attachment style, the Eros love style and avoidant attachment style, the Ludus love style and secure attachment style, and the Agape love style and avoidant attachment style.

The results of the correlation analysis between love styles and the overall self-esteem level score, and between love styles and the overall well-being level score, presented in Table 3, show a positive and statistically significant relationship between: the Eros love style and the overall self-esteem level score, the Eros love style and the overall well-being level score, and the Pragma love style and the overall well-being level score. The results of the correlation analysis between love styles and the overall self-esteem level score and between love styles and the overall well-being level score show a negative and statistically significant relationship between love style Mania and the overall self-esteem level score, love style Mania and the overall well-being level score, love style Agape and the overall self-esteem level score, and love style Agape and the overall well-being level score.

The results of the correlation analysis between love styles and the subscales of the Sexual Satisfaction Questionnaire presented in Table 4 show a positive and statistically significant relationship between: the Eros

Table 1. Exploratory factor analysis

| Item		1	2	3	4	5	6
Eros							
1	My partner and I have the right physical "chemistry" between us	0.67					
2	I feel that my lover and I were meant for each other	0.90					
3	My partner and I really understand each other	0.64					
4	My partner fits my ideal standards of physical beauty/handsomeness	0.44					
Ludus							
5	I believe that what my partner doesn't know about me won't hurt him/her		0.14				
6	I have sometimes had to keep my partner from finding out about other lovers		0.95				
7	My partner would get upset if he/she knew of some of the things I've done with other people		0.52				
8	I enjoy playing the "game of love" with my partner and a number of other partners		0.47				
Storge							
9	Our love is the best kind because it grew out of a long friendship			0.59			
10	Our friendship merged gradually into love over time			0.83			
11	Our love is really a deep friendship, not a mysterious, mystical emotion			0.42			
12	Our love relationship is the most satisfying because it developed from a good friendship			0.96			
Pragma							
13	A main consideration in choosing my partner was how he/she would reflect on my family				0.59		
14	An important factor in choosing my partner was whether or not he/she would be a good parent				0.81		
15	One consideration in choosing my partner was how he/she would reflect on my career				0.44		
16	Before getting very involved with my partner, I tried to figure out how compatible his/her hereditary background would be with mine in case we ever had children				0.68		
Mania							
17	When my partner doesn't pay attention to me, I feel sick all over					0.57	
18	Since I've been in love with my partner I've had trouble concentrating on anything else					0.52	
19	I cannot relax if I suspect that my partner is with someone else					0.50	
20	If my partner ignores me for a while, I sometimes do stupid things to try to get his/her attention back					0.62	
Agape							
21	I would rather suffer myself than let my partner suffer						0.66
22	I cannot be happy unless I place my partner's happiness before my own						0.85
23	I am usually willing to sacrifice my own wishes to let my partner achieve his/hers						0.60
24	I would endure all things for the sake of my partner						0.68
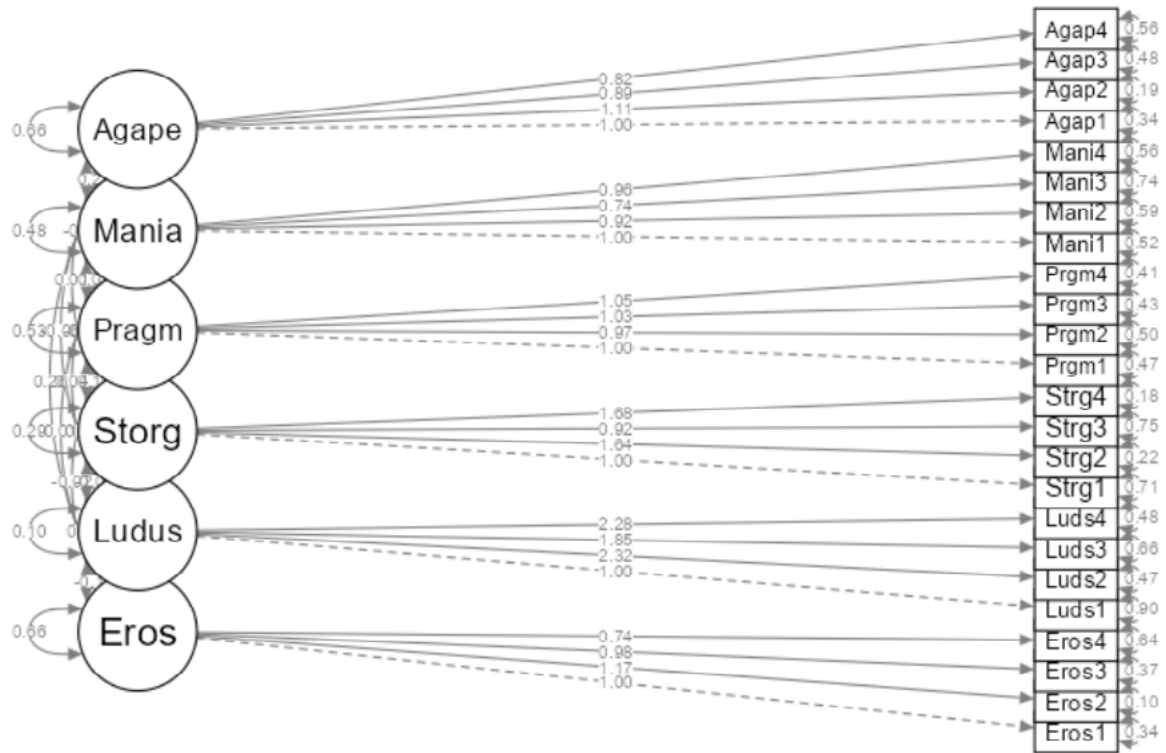
Figure 1. Results of confirmatory factor analysis of Love Attitudes Scale: Short Form

Table 2. Correlations between the Love Attitudes Scale: Short Form and the Attachment Styles Questionnaire

		1	2	3	4	5	6	7	8	9
1	Secure attachment style	1	-.295**	-.769**	.626**	-.268**	.071	.032	-.062	.276**
2	Anxious-ambivalent attachment style		1	.450**	-.224**	.078	-.021	-.008	.620**	.153**
3	Avoidant attachment style			1	-.554**	.341**	.055	.072	.230**	-.145**
4	Eros				1	-.363**	.127*	.028	-.016	.333**
5	Ludus					1	-.027	.083	.086	-.215**
6	Storge						1	.191**	-.018	.051
7	Pragma							1	.106*	-.020
8	Mania								1	.295**
9	Agape									1

** Correlation significant at the 0.01 level (two-tailed)
* Correlation significant at the 0.05 level (two-tailed)

love style and the level of overall sexual satisfaction, the Eros love style and the level of sexual satisfaction resulting from intimacy, the Eros love style and the level of sexual satisfaction resulting from fondling, and the Eros love style and the level of sexual satisfaction resulting from sex. The results of the correlation analysis between the love styles and the subscales of the Sexual Satisfaction Questionnaire, presented in Table 4, show a negative and statistically significant relationship between: the Ludus love style and the level of overall sexual satisfaction, and the Ludus love style and the level of sexual satisfaction resulting from intimacy.

Table 3. Correlations between the Love Attitudes Scale: Short Form and the Rosenberg Self-Esteem Scale total score and the Psychological Well-Being Scales total score

		1	2	3	4	5	6	7	8
1	Total Rosenberg Self-Esteem Scale	1	.548**	.170**	-.027	-.001	.063	-.201**	-.178**
2	Total Psychological Well-Being Scales		1	.195**	-.120*	.078	.160**	-.295**	-.148**
3	Eros			1	-.363**	.127*	.028	-.016	.333**
4	Ludus				1	-.027	.083	.086	-.215**
5	Storge					1	.191**	-.018	.051
6	Pragma						1	.106*	-.020
7	Mania							1	.295**
8	Agape								1

** Correlation significant at the 0.01 level (two-tailed)
* Correlation significant at the 0.05 level (two-tailed)

Table 4. Correlations between the Love Attitudes Scale: Short Form and the Sexual Satisfaction Questionnaire

		1	2	3	4	5	6	7	8	9	10
1	Total SSQ	1	.93**	.82**	.85**	.50**	-.14**	-.03	.02	-.03	.09
2	SSQ (proximity)		1	.63**	.64**	.49**	-.17**	-.02	.07	.01	.12*
3	SSQ (fondling)			1	.71**	.40**	-.06	-.05	-.06	-.051	.049
4	SSQ (sex)				1	.38**	-.07	-.03	-.02	-.065	.018
5	Eros					1	-.36**	.13*	.03	-.016	.333**
6	Ludus						1	-.03	.08	.086	-.215**
7	Storge							1	.19**	-.018	.051
8	Pragma								1	.106*	-.020
9	Mania									1	.295**
10	Agape										1

** Correlation significant at the 0.01 level (two-tailed)
* Correlation significant at the 0.05 level (two-tailed)

4. Discussion and Summary

The purpose of this study was to verify the psychometric properties of the Polish adaptation of the Love Attitudes Scale: Short Scale questionnaire used to measure the following six love styles: Eros, Ludus, Storge, Pragma, Mania, Agape (Hendrick et al., 1998). Evaluation of the psychometric properties was carried out through several steps. The first step was to conduct the translation with the cooperation of three independent, fluent in Polish and English

people, that is, a psychologist, a psychology student and an English scholar. The next step was to perform an exploratory factor analysis. It showed that, like the original version, the Polish adaptation contains six subscales – Eros, Ludus, Storge, Pragma, Mania, Agape. The next step was to conduct a confirmatory factor analysis, which confirmed the structure obtained in the exploratory factor analysis. In conclusion, the obtained results of the exploratory factor analysis and the confirmatory factor analysis of the Polish adaptation of the Love Attitudes Scale: Short

Scale questionnaire reaffirmed compliance with the psychometric values of the original version of the questionnaire.

The Polish version of the Love Attitudes Scale: Short Scale is a reliable tool that can be used in scientific research. This is evidenced by the obtained results of reliability measures, that is, Cronbach's Alpha and McDonald's Omega (Nunally and Bernstein, 1994; Hulin et al., 2001 after: Ursachi et al, 2015; Daud et al, 2018).

Satisfactory results were also obtained in the case of assessing external validity by carrying out correlations using the r-Pearson method between the subscales of The Love Attitudes Scale: Short Form and the subscales contained in the Attachment Styles Questionnaire, the Sexual Satisfaction Questionnaire, the Rosenberg Self-Esteem Scale and the Psychological Well-Being Scales Questionnaire. The results obtained corroborate the external validity of the Polish version of The Love Attitudes Scale: Short Form questionnaire while showing consistency with previous research taking into account the above variables (Levy and Davis, 1988; Hill et al, 2015; Mallandain and Davies, 1994; Kanemasa et al, 2004; Özer and Tezer, 2008).

Polish psychological literature has so far devoted relatively little space to love related research based on questionnaires that are created or adapted to the current state of knowledge in psychometrics. The adaptation of the Love Attitudes Scale: Short Scale is undoubtedly an important step to fill the mentioned space, thus enabling a deeper understanding of the essence of love and the ways of showing it at the same time, it becomes possible to gain a more accurate understanding of the traits that can condition certain attitudes and behaviours manifested in love.

5. Limitations

The study presented above has some limitations. Attention should be paid to the aspect of the respondents age. Along the year in which the original version of the questionnaire was developed, the age of the respondents (young adults) could have translated into the way they understood and interpreted the content of the questions. The age of the subjects may also have translated into the obtained result of reliability indicators – Cronbach's alpha is capable of taking different values in different age groups (Taber, 2018). Among the limitations of the survey, it should also be noted that responses were obtained online. However, this method of data collection allows a large number of responses to be collected limiting the possibility of analysis based on random responses. It is also worth noticing that this form is becoming an increasingly popular way of conducting surveys. Another of the limitations of the study may be the state of psychology's knowledge of love. Despite many years of attempts to characterise love and study it, love in psychological terms is still a kind of - though known - indefinable feeling in terms of definition. That results in small number of psychological tools for measuring love adapted to Polish cultural conditions – this is not conducive to the possibility of studying it in an exhaustively reliable way. Significantly, also outside Poland, the psychometric way of studying love is just developing.

Despite the limitations outlined above, the Love Attitudes Scale: Short Form can be considered a tool that can be used in scientific research, as well as a good basis for working on further development of how love is viewed in psychology as well as a good basis for working on new psychometric ways to measure love.

Bibliography

Bakhtiari, E., Hosseini, S., Arefi, M., Afsharinia, K. (2019). Causal model of extramarital affairs based on attachment styles and early maladaptive schemas: mediating role of marital intimacy and love styles, *Iranian Journal of Health Education and Health Promotion*, *7*, 245-258. https://doi.org/10.30699/ijhehp.7.2.245

Bilge, U., Tezer, E. (2008). Love attitude styles as the predictors of positive and negative affect, *Turkish Psychological Counseling and Guidance Journal, 3*, 19-29.

Cassepp-Borges, V. (2021). Should I stay or should I go? Relationship satisfaction, love, love styles and religion compatibility predicting the fate of relationships, *Sexuality & Culture, 25*(3), 871-883. https://doi.org/10.1007/s12119-020-09798-2

Clausen, G.T. (2022). *Love and Death in Plato's Symposium, In Philosophy of Love in the Past, Present, and Future*. Routledge.

Khidzir, N.Z., Ismail, A.R., Abdullah, F.A. (2018). Validity and reliability of instrument to measure social media skills among small and medium entrepreneurs at Pengkalan Datu River, *International Journal of Development and sustainability, 7*, 1026-1037.

Domagała, E. (2009). Miłość drogą do Piękna–Dobra–Prawdy, czyli o Platońskiej metafizyce miłości, *Annales Universitatis Mariae Curie-Skłodowska. Sectio I: Philosophia-Sociologia*, 77-95.

Ellis, F. (2017). *Schopenhauer on love, The Oxford Handbook of Philosophy*. Oxford: Oxford University Press.

Ellis, F. (2021). *Schopenhauer on the Delusions of Erotic Love, Louvain Studies, 44*(3), 235-251.

Fromm, E. (2004). *O sztuce miłości*. Poznań: Rebis.

Gómez-López, M., Viejo, C., Ortega-Ruiz, R. (2019). Well-being and romantic relationships: A systematic review in adolescence and emerging adulthood, *International Journal of Environmental Research and Public Health, 16*(13), 2415, 1-31. https://doi.org/10.3390/ijerph16132415

Hendrick, C., Hendrick, S.S., Dicke, A. (1998). The love attitudes scale: Short form, *Journal of Social and Personal Relationships, 15*, 147-159. https://doi.org/10.1177/0265407598152001

Hendrick, S.S., Hendrick, C. (2019). Measuring love. In Positive psychological assessment: A handbook of models and measures, *American Psychological Association*, 219-232 https://doi.org/10.1037/0000138-014

Janeczek, P., Lesiewicz, P. (2020). Rozumienie miłości przez młodych dorosłych wychowanych w rodzinach pełnych i niepełnych, *Zeszyty Studenckiego Ruchu Naukowego Uniwersytetu Jana Kochanowskiego w Kielcach, 29*(1), 49-58.

Jankowska, M. (2010). Miłość jako najpełniejszy sposób wyrażania siebie, *Kwartalnik Naukowy Fides et Ratio, 3*, 30-44.

Jaworska, I., Lubiejewski, P., Wójtowicz, N. (2019*).* Formy okazywania miłości a komunikacja interpersonalna u młodych dorosłych, *Kwartalnik Naukowy Fides et Ratio, 37*(1), 95-108. https://doi.org/10.34766/fetr.v1i37.39

Kanemasa, Y., Taniguchi, J., Daibo, I., Ishimori, M. (2004). Love styles and romantic love experiences in Japan, *Social Behavior and Personality: an international journal. Scientific Journal Publishers, 32*, 265-281. https://doi.org/10.2224/sbp.2004.32.3.265

Karandashev, V. (2022). Adaptive and Maladaptive Love Attitudes, *Interpersona: An International Journal on Personal Relationships, 16*(2), 158-177. https://doi.org/10.5964/ijpr.6283

Karaś, D., Cieciuch, J. (2019). Polska adaptacja kwestionariusza dobrostanu (psychological well-being scales) Caroll Ryff. *Roczniki Psychologiczne, 4*, 815-835. https://doi.org/10.18290/rpsych.2017.20.4-4pl

Kozakiewicz, A., Izdebski, Z., Mazur, J. (2022). The Measurement of Love: Psychometric Properties and Preliminary Findings of the Short Love Scale (SLS-12) in a Polish Sample, *International Journal of Environmental Research and Public Health, 19*(20), 13269. https://doi.org/10.3390/ijerph192013269

Lee, J.A. (1977). A typology of styles of loving, *Personality and Social Psychology Bulletin, 3*, 173-182. https://doi.org/10.1177/01461672770030020

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

Levy, M.B., Davis, K.E. (1988). Lovestyles and attachment styles compared: Their relations to each other and to various relationship characteristics, *Journal of social and Personal Relationships, 5*, 439-471. https://doi.org/10.1177/0265407588054004

Łaguna, M., Lachowicz-Tabaczek, K., Dzwonkowska, I. (2007). Skala samooceny SES Morrisa Rosenberga – polska adaptacja metody. *Psychologia Społeczna, 4*, 164-176.

Mallandain, I., Davies, M.F. (1994). The colours of love: Personality correlates of love styles, *Personality and Individual Differences, Elsevier, 17*, 557-560. https://doi.org/10.1016/0191-8869(94)90092-2

Matysiak-Błaszczyk, A., Błasiak, A., Ratajczak, Ł., Ściupider-Młodkowska, M., Zychowicz, M., Gątarek, I., Jankowiak, B. (2020). Relacje dziecka z rodzicami. (W:) K. Sikorska-Krauze, M. Klichowski (red.), *Pedagogika dziecka: podręcznik akademicki*, 287-318. Poznań: Wydawnictwo Naukowe Uniwersytetu im. Adama Mickiewicza.

Meskó, N., Zsidó, A.N., Láng, A., Karádi, K. (2021*).* Sex and relationship differences on the Short Love Attitude Scale: Insights from the Hungarian adaptation, *Sexuality & Culture, 25*, 1249-1272. https://doi.org/10.1007/s12119-021-09830-z

Michalska, M.M., Czerwiński, S.K., Lowder, A.H., Jonason, P.K. (2023). Feeling low and lonely: Personality traits, love styles, and social rejection, *Personality and Individual Differences, 204*, 1-7. https://doi.org/10.1016/j.paid.2022.112068

Oravecz, Z., Dirsmith, J., Heshmati, S., Vandekerckhove, J., Brick, T.R. (2020). Psychological well-being and personality traits are associated with experiencing love in everyday life, *Personality and Individual Differences, 153*, 1-9. https://doi.org/10.1016/j.paid.2019.109620

Plopa, M. (2017). Kwestionariusz Satysfakcji Seksualnej, *Forum Psychologiczne, 4*, 519-543. https://doi.org/10.14656/PFP20170401

Plopa, M. (2017). *Kwestionariusz Stylów Przywiązaniowych*, Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.

Raffagnino, R., Puddu, L. (2018). Love styles in couple relationships: a literature review, *Open Journal of Social Sciences, 6*(12), 307-330. https://doi.org/10.4236/jss.2018.612027

Ryś, M. (2016). Miłość jako podstawa wspólnoty małżeńskiej. Ujęcie psychologiczne. (W:) I. Grochowska, P. Mazanka (red.), *Szczęśliwe małżeństwo i rodzina*, 57-74. Warszawa: Wydawnictwo Naukowe UKSW.

Salayani, F., Ebrahimabad, M.J. A., Tabatabaei, K.R., Rougoushouee, R.A. (2020). Mediating role of loving styles in the relationship between personality characteristics and marital satisfaction, *Journal of Psychology*, 23-40.

Shahovisi, S., Goodarzi, M., Ezatpour, E.E. (2019). A comparison between attachment styles and love styles in couples raised in divorce and normal families, *Shenakht Journal of Psychology and Psychiatry, 6*(4), 80-89. https://doi.org/10.29252/shenakht.6.4.80

Soares, L., Cruz, O., Oliveira, F., Lucas, C.V., Neto, F. (2020). Psychosocial predictors of love satisfaction among college students from Madeira, *Journal of Relationships Research*, *11*(6), 1-8. https://doi.org/10.1017/jrr.2020.4

Sternberg, R.J. (1997). Construct validation of a triangular love scale, *European Journal of Social Psychology, 27*, 313-335. https://doi.org/10.1002/(SICI)1099-0992(199705)27:3%3C313::AID-EJSP824%3E3.0.CO;2-4

Taber, K.S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education, *Research in Science Education*, *48*, 1273-1296. https://doi.org/10.1007/s11165-016-9602-2

Tenhouten, W. (2021). Climbing, and falling off, Plato's ladder of love: The emotions of love and of love's undoing. (In:) *International handbook of love: Transcultural and transdisciplinary perspectives*, 101-121, Springer.

Ursachi, G., Horodnic, I.A., Zait, A. (2015). How Reliable are Measurement Scales? External Factors with Indirect Influence on Reliability Estimators, *Procedia Economics and Finance*, *20*, 679–686. https://doi.org/10.1016/S2212-5671(15)00123-9

Van Prooijen, J.-W., Van der Kloot, W.A. (2001). Confirmatory analysis of exploratively obtained factor structures, *Educational and Psychological Measurement*, *61*(5), 777-792. https://doi.org/10.1177/00131640121971518

Wojciszke, B. (1994). *Psychologia miłości*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.

Xia, Y., Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods, *Behavior Research Methods, 51*, 409-428. https://doi.org/10.3758/s13428-018-1055-2

Xia, M., Chen, Y., Dunne, S. (2023). What makes people feel loved? An exploratory study on core elements of love across family, romantic, and friend relationships, *Family Process*, 1-32. https://doi.org/10.1111/famp.12873

Yoo, G., Joo, S. (2022*).* Love for a marriage story: the association between love and marital satisfaction in middle adulthood, *Journal of Child and Family Studies, 31*(6), 1570-1581. https://doi.org/10.1007/s10826-021-02055-6

Yoshino, K. (2020). Inseparability of self-love and altruistic love: PA Sorokin and E. Fromm, *Human Arenas, 3*(1), 38-51. https://doi.org/10.1007/s42087-019-00093-7

Zeigler-Hill, V., Britton, M., Holden, C.J., Besser, A. (2015). How will I love you? Self-esteem instability moderates the association between self-esteem level and romantic love styles, *Self and Identity, 14*(1), 118-134. https://doi.org/10.1080/15298868.2014.960445