



Research Articles

The Dark Triad, Love Components, and Attachment Styles in Romantic Relationship Experiencing During Young Adulthood

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Abstract

The aim of this research was to clarify the nature of experiencing relationships in connection with the dark aspects of personality—Dark Triad. The study was conducted on a sample of 293 young adults ($M_{\text{age}} = 22.9$, $SD = 3.4$), 53.6% of females and 46.4% of males. The Slovak version of Short Dark Triad—SD3, the Slovak version of The Sternberg Triangular Love Scale (STLS) and the Slovak version of Experience in Close relationship—Revised were administered. The model of complex relationships of the Dark triad, components of love and attachment style explained 83% of the variation of the attachment style in a close relationship. The Dark triad had a direct negative effect on the love components and a direct positive effect on the attachment style in a close relationship. The components of love had a direct negative effect on the attachment style in a close relationship. In the model, gender differences were found.

Keywords: Dark Triad, romantic relationship, attachment style, components of love

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Personality plays an important role in the formation of emotional attachments as it tells us how a person will behave in a romantic relationship, how they will perceive and experience it (Heaven et al., 2004). Several studies have been devoted to the research of romantic relationships in the context of personality. Naturally, one of the most widely used concepts was the Big Five model (McCrae & Costa, 1987). In scientific circles, it is Big Five that a considerable part of the attention of researchers is devoted to. For example, extroversion and neuroticism have been found to correlate with models of emotional attachment and with the way an individual perceives themselves and their partner in a relationship (Baackstrom & Holmes, 2001). The level of neuroticism determined how much of the existing emotional attachment would be anxious (Heaven et al., 2004). The level of extraversion was related to the level of dependence of the individual on their partner; a high level of extraversion reduced the dependence. Individuals with a higher level of agreeableness tended to be more dependent on their partner and perceived the romantic relationship in a better light (Lehnart & Neyer, 2006).

In the literature, some experts have referred to the Big Five as describing the "bright" aspects of personality (Oluf & Furnham, 2015). The Model of the Dark Triad is perceived as contrasting (Paulhus & Williams, 2002) because it covers the dark side of personality. It was this fact that became the impetus for research of the nature of romantic relationship in the context of aversive personality traits. The results have the ambition to enrich the previous findings from the field of research of romantic relationships in connection with personality traits.

Romantic Relationship

A romantic relationship is a close relationship between two adults who experience a certain type of love (Myers, 2011), which falls under the category of monogamous relationships, but it also can be practice of having more than one intimate partner (Klesse, 2015). In this case, we are referring to it as consensual nonmonogamies which can take the form of polyamory, open marriages or swinging (Sprott et al., 2017). For the purpose of this study, a monogamous type of relationship arrangement was chosen to work with as it is the most common type in human culture (Fletcher et al., 2019).

Romantic relationships occur as early as in adolescence but they tend to be less durable, more superficial and partners, in most cases, come from the same circles such as classmates, peers and the like (Rauer et al., 2013). What close relationships have in common is mutual understanding, reciprocity in support, the joy of the other person's presence and positive appreciation. However, what elevates them to romantic relationships is intense emotional attachment and sexual desire. The amount of each factor is individual depending on the specific relationship (Výrost & Slaměník, 1997). Unlike romantic relationships in adolescence, in young adulthood the presence of emotional intimacy (giving or receiving sentimental gifts, thinking about oneself and one's partner and the couple—as "we" instead of "me") and sexual intimacy and commitment increases. According to Meier and Allen (2009), young adults who have experience of a romantic relationship in adolescence are more prepared for a stable relationship, are more likely to cohabit with a partner and are also more likely to marry in young adulthood (Meier & Allen, 2009). It is important to mention, that young adulthood is not clearly defined. Petry (2002) and other authors (Foulds et al., 2017; Mireskandari et al., 2009) define it as the period between 18 and 35 years of age, Turrell (2002) as 20 to 35 years and Ehlers and Kupfer (1997) together with Vágnerová (2008) define this period between 20 and 40 years. For the purposes of our research, we have chosen an age range from 18 to 35 years.

In order to create a romantic relationship, it is necessary to create an attachment between the partners (Výrost & Slaměník, 1997) which we understand to be an emotional connection between two romantic partners (Meier & Allen, 2009). Bowlby's original work is about the attachment between a child and the person who cares for them from an early age such as a parent or another caregiver. Thanks to the hierarchies that the child creates, the attachment is also linked to other people close to the child. The result of the interaction between them and these persons (attachment figures), to whom they have an emotional relationship, is the so-called internal working model. The internal working model is a construct that internalizes ways of experiencing close relationships during an individual's life. Our first attachment is a prototype for the subsequent creation and experiencing of other attachments (Fonagy et al., 2014). Agreement between the type of attachment in childhood and adulthood was confirmed by 68–75% (Bakermans-Kranenburg & Van Ijzendoorn, 2009).

The model of adult relationship (Hazan & Shaver, 1987) works at the level of self and at the level of others, which takes on a negative or positive value at both levels. If we perceive ourselves positively, we are worthy of love and support, if we do so negatively—we are not. If we perceive others positively, we consider them credible and accessible. If we perceive them negatively, we see them as unreliable and repulsive. These combinations form four types or styles of attachment in adulthood described below (Bartholomew & Horowitz, 1991; Brennan et al., 1998).

Secure attachment combines a positive level of self and a positive level of others. The individual feels that they are worthy of love and expects an adequate response from the attachment figure, intimacy is pleasant to them, and they retain a sense of independence. Excluding secure attachment style, all other types of attachment which contain above average levels of anxiety or avoidance or both, are classified as insecure (Costa & Mosmann, 2020). Ambivalent preoccupied attachment combines a negative level of self and a positive evaluation of others. An individual experiencing this type of attachment acquires a sense of acceptance only through acceptance by others. Fearful avoidant attachment contains only negative levels of the working model. The individual considers themselves unworthy of love and expects that their surroundings will reject them and does not trust others. Dismissing avoidant attachment contains a positive level of self and a negative level of others. The individual protects themselves from disappointment and harm from others by distancing themselves from close relationships, while maintaining a sense of independence, invulnerability and high self-confidence.

In connection with relationships, one of the most frequently cited is Sternberg's theory of love (Sternberg, 1986). According to this theory, love is made up of three components that interact with each other—intimacy, passion and commitment which are to varying levels in every relationship.

Intimacy is characterized as closeness, interconnectedness of partners in a romantic relationship. It gives a kind of warmth to the relationship ("warm component"), in a broader sense it also expresses the emotional investment of the partners in the relationship (Sternberg, 1986). The feeling of intimacy is not usually experienced individually in the relationship and also occurs in other than romantic relationships—friendships and family relations (Sternberg & Grajek, 1984). Passion is understood as an element ("warm component") that leads to physical attraction, it is a sexual phenomenon in a romantic relationship. Passion in a relationship evokes excitement and deepens the desire of partners for connection, dominated by sexual needs both physical and mental. Naturally, this component should not be found in anything other than a romantic relationship (Sternberg, 1986; Sternberg & Weis, 2006). Commitment is a type of decision ("cold component") meaning that a partner chooses another with whom they want to maintain a relationship but these two situations do not have to occur exclusively at the same time (Sternberg & Weis, 2006). Commitment is something that sustains a relationship during good times as well as bad and bridges it through temporary struggles.

In short-term relationships, passion tends to play a major role, intimacy is present only at a certain level and commitment is almost non-existent. In long-term relationships, this is different, and as a rule, intimacy and commitment are the most prominent while expressions of passion decline (Myers, 2011).

Dark Triad in the Context of Romantic Relationships

Although the Dark Triad phenomenon (Paulhus & Williams, 2002) is a relatively new concept compared to classical theories of personality, its individual components such as Machiavellianism, narcissism and psychopathy have been studied by experts for much longer. While the concepts of narcissism and psychopathy are

based on clinical literature and are still perceived as personality disorders in diagnostic systems, the construct of Machiavellian has its origins in philosophy (Furnham et al., 2013; Wilson et al., 1996). The concept of Dark Triad was created because negative personality traits were getting the attention of experts rather separately. This created a certain contrast to models such as Big Five, which is primarily focused on the brighter side of personality (Oluf & Furnham, 2015) and, in addition, conceptualizes it into a certain system of personality traits. Machiavellianism, narcissism and psychopathy have a common origin in a research inquiry, the findings so far suggest that despite different base, personality traits that are linked to the concept of Dark Triad share certain common characteristics (Čopková & Araňošová, 2020).

Traits of the Dark Triad are characterized as self-assertion, emotional coldness or callousness, aggression, lack of honesty, absence of humility, and a socially malevolent character with behavioral tendencies to promote oneself and dishonesty (Lee & Ashton, 2005; Paulhus & Williams, 2002). Machiavellianism is characterized by emotional distancing and a tendency to manipulate in order to achieve one's own goal with a disregard for others (Al Aïn et al., 2013). Narcissism is characterized by exaggerated self-love, inflated self-confidence, a sense of importance and superiority over others, and at the same time an extremely positive but vulnerable self-image and self-perceived attractiveness (Borráz-León & Rantala, 2021; Morf & Rhodenwalt, 2001). Psychopathy is characterized by features such as high impulsivity, excitement seeking, low empathy, low anxiety (Paulhus & Williams, 2002), lack of concern for others, lack of guilt and remorse, and emotional shallowness (Forsyth & O'Boyle, 2012). However, it must be emphasized that all three categories are viewed in a light of subclinical features, meaning that the behavior of individuals who exhibit these characteristics is not extreme enough to attract the attention of clinical psychologists or psychiatrists (Čopková & Araňošová, 2020).

Machiavellianism and Romantic Relationships

McHoskey (2001) found that the nature of Machiavellianism in romantic relationships is as follows: they seek out new sexual experiences through intimidation and humiliation gaining the upper hand over their partner. A romantic relationship is an ideal environment for the realization of Machiavellian manners.

People scoring high on the scale of Machiavellianism described their romantic relationships as more intense, changing partners more often, and using means such as alcohol on their partner to engage in sexual activities which points to low levels of commitment, intimacy and closeness as reported in several studies (Ali & Chamorro-Premuzic, 2010b; Jonason et al., 2009). Machiavellism is connected to suspicion of their partner's dishonest behavior in the relationship as well. This behavior was more common in males than in females.

According to previous research findings on heterosexual couples (Ináncsi et al., 2018), men with a high Machiavellianism score show distrust of their partner in the relationship. Women who are in a relationship with such a man tend to invest less in the relationship (Ináncsi et al., 2018). However, women who have a high Machiavellianism score invest more resources such as emotional dependency, energy and time but also have a high level of mistrust. Such women take preventive measures to curb their mistrust which includes emotional and physical separation from the partner, minimizing possible harm from rejection or disappointment and finding an alternative partner in which they seek support. The alternative partner can eventually replace the original—in case of threat and expectation of the original partner leaving the relationship (Ináncsi et al., 2018). Again, this behavior points to low commitment and intimacy. Women with high scores in Machiavellianism also label their partners as less reliable and stable, the attachment style is avoidant (Brewer & Abell, 2017; Brewer et al., 2018). Ináncsi et al. (2015) support this finding based on their research on young adults, but showcase

dismissing avoidant attachment style also in Machiavellists' general relationships, with the difference of added anxiety in the attachment in intimate relationships. This anxiety could be explained by above mentioned distrust and suspicion.

In long-term relationships, the Machiavellian partner cautiously perceives competition, the same but also the opposite gender. They inact measures to keep their partner by, for example, monopolizing partner's time (time spent with a Machiavellian partner dominates over anything else), inducing jealousy, punishing their partner (creating a sense of threat from nonexistent infidelity), emotional manipulation, ridicule or creating a worse image of their partner in front of others so to make their partner less attractive to the perceived „competitor“ (Brewer & Abell, 2015).

Subclinical Narcissism and Romantic Relationships

Narcissists create good first impressions as they are self-confident about their self-perceived attractiveness and therefore easily find partners (Borráz-León & Rantala, 2021).

When it comes to love components, a positive significant relationship is observed with passion (Ha et al., 2018). Narcissists are more comfortable with short-term relationships, one-night experiences and non-binding sexual relationships often title "friends with benefits." As a result, narcissists possess a higher number of sexual partners than their counterparts (Borráz-León & Rantala, 2021). Such behavioral patterns support assumptions about high passion, but low commitment in relationships. It can be said that they prove their value to themselves by the number of alike experiences (Koladich & Atkinson, 2016). When noticing the signs of the formation of an emotionally deep relationship narcissists proceed only if their partner can saturate their needs or if the partner is sufficiently attractive and has a status that meets their criteria. Only if their needs are met really well, they themselves see the relationship as a commitment in which they are determined to remain (Foster, 2008; Foster & Brunell, 2018), but the commitment is not authentic.

Problems in relationships with the narcissist do not usually occur right at the beginning of the relationship. Negativity and even hostility in communication, even with regard to common and practically harmless topics emerge later. Narcissists may try to evoke jealousy or other unpleasant feelings in their partner by which they punish, test or try to control the partner which leaves the partner in a state of uncertainty and causes long-term stress in the relationship by hiding their true feelings (Foster & Brunell, 2018; Peterson & DeHart, 2014). Narcissists are prone to higher anxiety in attachment, when grandiosity prevails, lower avoidance is perceived (Rohmann et al., 2012).

Marriages with narcissistic women showed a higher rate of marital problems compared to the general population (Lavner et al., 2016, as cited in Foster & Brunell, 2018). Due to their selfishness, the narcissists in the relationship are focused on themselves. They disregard the consequences of their negative behavior towards the partner; thus, they are sure of partner's loyalty, which stems from narcissist's high self-esteem (Brewer et al., 2018).

Subclinical Psychopathy and Romantic Relationships

Psychopathic traits, especially the inability to empathize, seriously disrupt the formation of romantic relationships and limit their duration to short-term relationships.

Partner selection in primary psychopaths is slightly based on positive similarity and in secondary psychopaths on low similarity (Savard et al., 2011, as cited in Kardum et al., 2016). Despite their personality, most subclinical psychopaths report that their relationship is not very intimate and, in some cases, involves partners outside the relationship (Ali & Chamorro-Premuzic, 2010a; Jones & Weiser, 2014), which points to low commitment. Psychopathic traits in subclinical samples such as meanness and psychological/physical aggression are also associated negatively with components of love, mainly intimacy and commitment (Mejia et al., 2020).

Secondary psychopathy was found to correlate negatively with intimacy, primary psychopathy was, surprisingly, positively associated with all of three love components (Ali & Chamorro-Premuzic, 2010b). According to research findings, the type of attachment that occurs in primary psychopaths is characterized as avoidant, ambivalent attachment style, due to callousness and emotional distancing. This variety of attachment style could be explained by diverse personalities of psychopaths. Women whose partners fall into the category of primary psychopathy are characterized by a fear of abandonment more than avoidance (Brewer et al., 2018; Mayer et al., 2019). The type of attachment in secondary psychopaths is closer to disorganized attachment style / anxiety-avoidance (Brewer et al., 2018; Mayer et al., 2019), due to unstable nature, violent and impulsive behavior. According to the research of Mayer et al. (2019), an anxious attachment is deepened when the secondary psychopathic partner ceases to engage in joint activities, does not plan for a future with the partner, undermines trust, and does not reassure the partner of their commitment to the relationship. If an anxious partner tries to avert these problems in some way, it strengthens the psychopathic partner's traits.

An interesting finding is that despite their anti-social nature, highly scoring subclinical psychopaths are able to form friendships which they later abuse to satisfy their sexual needs (Koladich & Atkinson, 2016) and also have a higher number of sexual partners similarly to narcissists and machiavellians (Borráz-León & Rantala, 2021).

Based on the above-mentioned theoretical background, the main goal of the research was to clarify the nature of experiencing relationships in the context of Sternberg's (1986) components of love and the type of attachment in connection with the dark sides of personality, the so-called Dark Triad—Machiavellianism, narcissism and psychopathy.

Method

Sample

The study involved 293 respondents in the period of young adulthood aged 18 to 35 years ($M_{\text{age}} = 22.9$, $SD = 3.4$). Females made up 53.6% of respondents ($N = 157$), males made up 46.4% of respondents ($N = 136$). Women's age ranged between 18 to 35 years of age ($M_{\text{age}} = 22.3$, $SD = 3.18$), man's age was in the range of 18 to 35 years of age ($M_{\text{age}} = 23.8$, $SD = 3.42$).

The longest duration of the relationship in the collected data was 142 months and the shortest lasting relationship was 1 month. The mean length of the relationship in the research sample was 33.8 months, the standard deviation was 28.8 months. Relationships for women lasted on average 36.6 months and for men lasted an average of 30.7 months

Convenience and purposive sampling method was used. Questionnaires were distributed via social networks by personally addressing a respondent on the completion of the questionnaire. The target population were young adults aged 18–35 years who, at the time of time of data collection, were in romantic monogamous heterosexual relationships.

Measurements

Short Dark Triad

The scale Short Dark Triad (Jones & Paulhus, 2014, for Slovak adaptation see Čopková & Šafár, 2021) consists of 27 items that saturate the three subscales—Machiavellianism ("*Most people can be manipulated.*"), narcissism ("*I insist on getting the respect I deserve.*") and psychopathy ("*I like to get revenge on authorities.*"). Each dimension consists of nine items. The respondent responds on a 5-point likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The indicators of the internal consistency of the scales expressed by the Cronbach alpha coefficient were as follows— $\alpha_m = .772$, $\alpha_n = .739$, $\alpha_p = .679$.

The Sternberg Triangular Love Scale

The Sternberg Triangular Love Scale (STLS; Martinovská & Falata, 2004). The Slovak version of the original Sternberg (1986) questionnaire was used. The questionnaire consists of 45 items, which are divided into three subscales according to the component of love they cover: intimacy ("*I share confidential information about myself with my partner.*"), passion ("*Just looking at my partner excites me a lot.*"), and commitment ("*Although it is sometimes difficult to get along with a partner, I remain true to our relationship.*"). Respondents rate statements on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The indicators of the internal consistency of the scales expressed by the Cronbach's alpha coefficient were as follows— $\alpha_i = .934$, $\alpha_p = .905$, $\alpha_c = .956$.

Experience in Close relationship—Revised

The questionnaire Experience in Close relationship—Revised (Bieščad & Hašto, 2009; Lečbych & Pospíšiliková, 2012) is an adapted version of Fraley et al. (2000). The questionnaire consists of 36 items, which are divided into two subscales: anxiety in the attachment ("*When my romantic partner is out of sight, I worry they might become interested in someone else.*") and avoidance in the attachment ("*I get uncomfortable when my romantic partner wants to be very close.*"). Statements are rated on a 5—point likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The indicators of the internal consistency of the scales expressed by the Cronbach's alpha coefficient were as follows— $\alpha_{ax} = .866$, $\alpha_{av} = .901$.

Procedure

The questionnaires were submitted to respondents in the period March 2020–April 2020 in an electronic format created in the Google Docs-Form web application. Respondents were informed that completing the questionnaire is voluntary and anonymous and that data will only be processed in the framework of this research. All respondents expressed their agreement to participate in the research. The collected data were analyzed in IBM SPSS Statistics (Version 21) and IBM Amos (Version 23) software.

Data Analysis

There were no missing data in the dataset. Testing the normality of data distribution using the Kolmogorov-Smirnov test showed that the data are normally distributed ($p \geq .05$). Descriptive indicators of the normality of data distribution indicated that the value of the skewness and kurtosis did not exceed the criterion $>\pm 1$. The internal consistency was determined using Cronbach's alpha (Cronbach α). The obtained data were described using other descriptive indicators (mean, standard deviation). Relationships between variables were tested by Pearson correlation coefficient; complex relationships between variables were tested by structural equation modeling (SEM), maximum likelihood method was used. Gender differences were tested by t -test for independent samples.

Results

The analyzes were performed in several steps. First, we subjected the data to descriptive analysis. In Table 1, we present a basic descriptive analysis of the dark triad, love components, and attachment styles for the whole sample and both genders.

Table 1

Descriptive analysis of Dark Triad, Love Components, and Attachment Styles

Variable	Total sample		Males		Females	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MACH	26.14	6.86	27.10	6.65	25.31	6.96
NAR	24.50	6.13	25.39	6.24	23.73	5.95
PSY	19.42	5.68	20.89	5.44	18.15	5.59
INT	68.38	7.90	68.50	7.53	68.27	8.23
PAS	61.14	10.12	60.72	10.22	61.50	10.06
COM	67.73	10.11	67.62	10.20	67.82	10.07
ANX	36.25	11.98	35.46	10.23	36.92	13.31
AVO	29.50	10.51	30.29	9.91	28.82	10.99

Note. MACH = Machiavellianism; NAR = narcissism; PSY = psychopathy; INT = intimacy; PAS = passion; COM = commitment; ANX = anxiety; AVO = avoidance; *M* = mean; *SD* = standard deviation.

Next, the analysis entailed answering the questions of what the relationships between the features of the Dark Triad, the components of love and the type of attachment are. Correlation analysis pointed to several significant relationships. The exact values of the correlation coefficients are described in the table (Table 2). Machiavellianism and narcissism did not show significant relationships with the components of love. According to our results, psychopathy has a significant negative relationship with intimacy and commitment. Machiavellianism and psychopathy correlated significantly positively with both anxious and avoidant types of attachment. Avoidant attachment style had significant negative and strong relations with all three components of love. The anxious attachment style also had significant negative relationships with the components of love, but the value of the correlation coefficients indicated a weak to moderate relationship.

Table 2

Pearson Correlation of Dark Triad with Love Components and Attachment Styles

Variable	M	SD	1.	2.	3.	4.	5.	6.	7.	8.
1. MACH	26.14	6.86	1							
2. NAR	24.50	6.13	0.28**	1						
3. PSY	19.42	5.68	0.45**	0.36**	1					
4. INT	68.38	7.90	-0.08	-0.01	-0.17**	1				
5. PAS	61.14	10.12	0.02	-0.01	-0.04	0.71**	1			
6. COM	67.73	10.11	-0.05	-0.07	-0.16**	0.81**	0.77**	1		
7. ANX	36.25	11.98	0.19**	-0.02	0.26**	-0.44**	-0.13*	-0.33**	1	
8. AVO	29.50	10.51	0.12*	0.03	0.17**	-0.79**	-0.57**	-0.66**	0.43**	1

Note. MACH = Machiavellianism; NAR = narcissism; PSY = psychopathy; INT = intimacy; PAS = passion; COM = commitment; ANX = anxiety; AVO = avoidance; M = mean; SD = standard deviation.

p* < .05. *p* < .01.

In reviewing the results of testing the relationships between these variables based on gender (Table 3), it is evident that psychopathy was significantly negatively correlated with intimacy in both men and women. Differences were observed in commitment, where the negative relationship with psychopathy was significant only in women. In connection with the type of attachment, Machiavellianism and psychopathy had significant positive relationships with both avoidance and anxiety in women; in men, these relationships were not significant. Also, an analysis has shown that there are weak relationships between passion and attachment anxiety in both men and women. The strongest relationship in the case of intimacy and avoidant attachment style was found in women. The relationship between passion and avoidant attachment style was stronger in men. The relationship between commitment and attachment avoidance was stronger in women. The correlation coefficients in relation to the anxiety in attachment style and the components of love reached approximately the same values for both men and women.

Table 3

Pearson Correlation of Dark Triad with Love Components and Attachment Styles—Gender

Females	Males							
	MACH	NAR	PSY	INT	PAS	COM	ANX	AVO
MACH	1	0.25**	0.40**	0.02	0.11	0.06	0.17	0.05
NAR	0.28**	1	0.39**	-0.02	0.01	-0.05	-0.01	0.04
PSY	0.47**	0.30**	1	-0.17*	-0.11	0.16	0.16	0.12
INT	-0.16	-0.01	-0.18*	1	0.78**	0.84**	-0.43**	-0.71**
PAS	-0.05	-0.22	0.03	0.66**	1	0.19**	-0.17	-0.56**
COM	-0.13	-0.10	-0.18*	0.79**	0.75**	1	-0.31**	-0.58**
ANX	0.23**	-0.02	0.36**	-0.44**	-0.11	-0.35**	1	0.40**
AVO	0.17*	-0.01	0.19*	-0.85**	-0.58**	-0.73**	0.46**	1

Note. MACH = Machiavellianism; NAR = narcissism; PSY = psychopathy; INT = intimacy; PAS = passion; COM = commitment; ANX = anxiety; AVO = avoidance; M = mean; SD = standard deviation.

p* < .05. *p* < .01.

Testing of the gender differences between correlation coefficients showed several significant results. There was a significant difference in relationships of narcissism and passion ($z = -1.974, p = .05$), psychopathy and commitment ($z = -2.901, p = .05$), intimacy and passion ($z = -2.134, p = .03$), intimacy and avoidance ($z = -3.117, p = .01$), commitment and passion ($z = 6.565, p < .001$), commitment and avoidance ($z = -2.249, p = .02$). We found the difference between correlation coefficients of psychopathy and commitment as the most interesting. This result shows how oppositely men and women experience the relationship between psychopathy and commitment. The more psychopathic women are, then less commitment in romantic relationship they experience. Opposite the more psychopathic men are, then stronger commitment they experience.

Next we report the correlation between relationship duration, dark personality traits, attachment styles and components of love. As Table 4 shows, there are no significant relationships.

Table 4

Pearson Correlation of Relationship Duration, Dark Triad, Love Components and Attachment Styles

Variable	MACH	NAR	PSY	INT	PAS	COM	ANX	AVO
Relationship duration	-0.07	-0.10	-0.11	-0.07	-0.07	0.04	-0.08	0.02

Note. MACH = Machiavellianism; NAR = narcissism; PSY = psychopathy; INT = intimacy; PAS = passion; COM = commitment; ANX = anxiety; AVO = avoidance.

Based on the above preliminary results, a more comprehensive analysis was needed of the data obtained. By analyzing the complex relationships between variables, the research tried to conclude to what extent the features of the Dark Triad contribute to the romantic relationships experiencing in terms of components of love and the type of attachment.

Based on the theoretical findings, a hypothetical model was created in which the Dark Triad (DT), components of love (LC) and the attachment style (AS) formed latent variables. The Dark Triad was made up of three manifest variables—Machiavellianism (MACH), narcissism (NAR), psychopathy (PSY). The components of love were also made up of three manifest variables—intimacy (INT), passion (PAS), commitment (COM). The attachment style consisted of two manifest variables—avoidance (AVO) and anxiety (ANX). Based on theoretical background, the features of the Dark Triad were perceived as dispositional characteristics that are rather stable (Nübold et al., 2017; Sindermann et al., 2018).

This led to the assumption that the relationship should be directed from the Dark Triad toward the components of love and attachment style, that are variables with less stability (Heaven et al., 2004). This is because the type of attachment is associated with relatively coherent and stable patterns of behavior and experiencing, which are reflected in romantic relationships (Shaver et al., 1996).

Assuming from the theoretical background, the amount of present intimacy, passion and commitment should be contributed by the kind of attachment style that is formed between partners in the romantic relationship (Lehnart & Neyer, 2006) and is strongly influenced by the first attachment style one builds in the childhood (Bakermans-Kranenburg & Van Ijzendoorn, 2009; Fonagy et al., 2014).

The hypothetical model was tested by SEM, but the indicators of model fit did not reach the necessary values (Table 5). By further analyzing other indicators that helped identify the sources of low model fit, the hypothetical

model was modified by adding one covariance between the residual indicators (passion—commitment). By re-testing the modified model, better values of the model fit were obtained (Table 5).

Table 5

Model Fit A (N = 293)

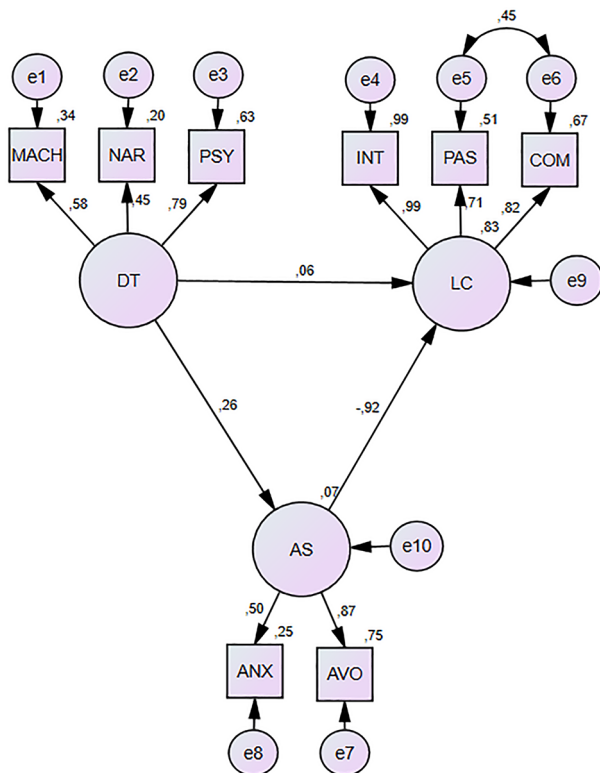
Model	N	χ^2	df	p	χ^2/df	CFI	TLI	RMSEA	SRMR
Model A	293	217.06	34	<.001	6.38	0.92	0.86	0.09	0.06
Modified model A	293	119.88	32	<.001	3.75	0.96	0.93	0.07	0.06

Note. CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA = Root Mean Square Error Of Approximation; SRMR = Standardized Root Mean Square Residual.

According to the modified model, the features of the Dark Triad and attachment styles explained 83% ($R^2 = .83$) of the variance of the components of love. However, the Dark Triad traits explained only 7% ($R^2 = .07$) of the variance of the type of attachment. Next, standardized regression weights (β) of predictions for direct effects between variables in the model were presented. Two direct effects were significant. The Dark Triad had a direct positive effect on the attachment style ($\beta = 0.26$, $SE = 0.19$, $p = .001$). The attachment style had a direct negative effect on the components of love ($\beta = -0.92$, $SE = 0.07$, $p < .001$). The following figure (Figure 1) presents a modified model with standardized parameter estimates.

Figure 1

Modified Model A—Standardized Estimates



Testing of the differences between the models for the sample of women and the sample of men showed that these models are not statistically different ($\chi^2 = 15.09$, $df = 8$, $p = .06$). This result is not surprising because the analysis did not confirm the existence of significant gender differences in the components of love nor in the attachment style (Table 6). It is necessary to note that there were gender differences in relationship duration, females stay in relationship longer than males.

Table 6

Gender Differences

Variable x Gender	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Machiavellianism				
Males	27.09	6.65	2.24	.03*
Females	25.31	6.96		
Narcissism				
Males	25.39	6.24	2.33	.02*
Females	23.73	5.95		
Psychopathy				
Males	20.89	5.44	4.23	≤ .001*
Females	18.15	5.59		
Intimacy				
Males	68.50	7.53	0.24	.81
Females	68.27	8.23		
Passion				
Males	60.72	10.22	-0.66	.51
Females	61.50	10.06		
Commitment				
Males	67.62	10.20	-0.17	.86
Females	67.82	10.07		
Anxiety				
Males	35.46	10.23	-1.04	.30
Females	36.92	13.31		
Avoidance				
Males	30.29	9.91	1.202	.23
Females	28.81	10.99		
Age				
Males	23.75	3.42	-1.735	.08
Females	22.30	3.18		
Relationship duration				
Males	30.73	28.74	3.875	≤ .001*
Females	36.57	28.73		

Note. *M* = mean; *SD* = standard deviation.

* $p < .05$.

However, the model did not explain the individual role of each dark trait. In order to provide more comprehensive results, we have tested another hypothetical model with Machiavellianism, narcissism and psychopathy as intercorrelated manifest variables. The model fit indicators had not sufficient values, so there was covariances between the residual indicators (passion—commitment, passion—anxiety) added. By re-testing the modified model, better values of the model fit were obtained (Table 7).

Table 7

Model Fit B (N = 293)

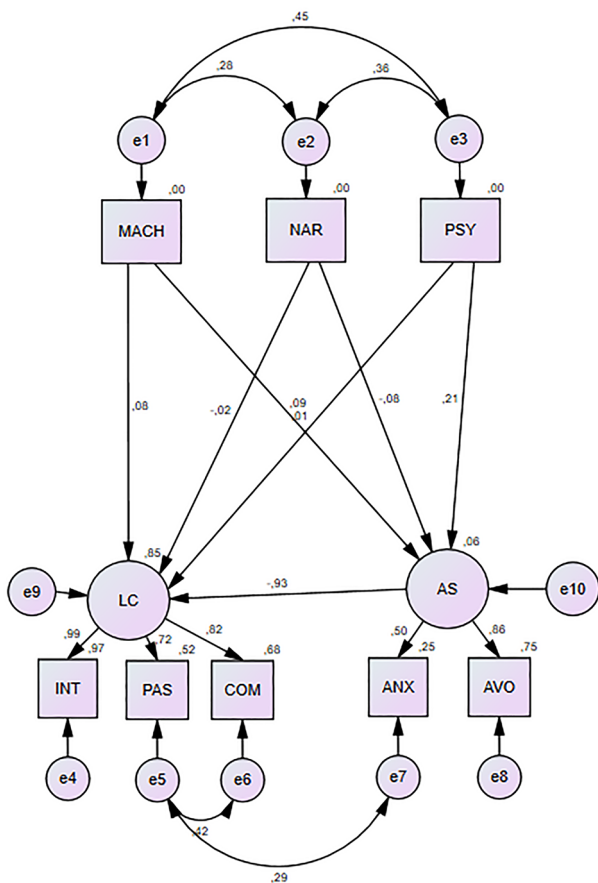
Model	N	χ^2	df	p	χ^2/df	CFI	TLI	RMSEA	SRMR
Model B	293	102.79	13	< .001	7.91	0.92	0.82	0.15	0.06
Modified model B	293	25.42	11	.008	2.31	0.99	0.97	0.07	0.04

Note. CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA = Root Mean Square Error Of Approximation; SRMR = Standardized Root Mean Square Residual.

Machiavellianism, narcissism, psychopathy, and attachment styles explained 85% ($R^2 = .85$) of the variance of the components of love. Machiavellianism, narcissism, and psychopathy explained 6% ($R^2 = .06$) of the variance of the type of attachment. Next, standardized regression weights (β) of predictions for direct effects between variables in the model were presented. Again, two direct effects were significant. Psychopathy had a direct positive effect on the attachment style ($\beta = 0.21$, $SE = 0.12$, $p = .005$). The attachment style had a direct negative effect on the components of love ($\beta = -0.93$, $SE = 0.08$, $p < .001$). The following figure (Figure 2) presents a modified model with standardized parameter estimates.

Figure 2

Modified model B—standardized estimates.



Discussion

The main goal of the research was to clarify how individuals with Dark Triad personality traits (Machiavellianism, narcissism and psychopathy) experience relationships.

As romantic relationships consist of many attributes, for this research the widely used concepts of Sternberg's (1986) triangular model of love was used defining romantic relationships as those consisting of intimacy, passion and commitment. According to the theory, these elements of love are found in every relationship. Another dimension examined in romantic relationships was the level of anxiety and avoidance in attachment. We chose this dimension because it uncovers the way we experience a romantic relationship and a more detailed analysis can be used to deduce four types of attachment (secure, disorganized, ambivalent, avoidant), which tend to reflect our initial attachment style that we form in childhood (Fonagy et al., 2014).

Present research was conducted on a sample of young adults. According to Erikson's biodromal theory, young adulthood is considered a period of intimacy versus isolation crisis (Vágnerová, 2012). This stage in an individual's development is characterized by the fact that after achieving one's own identity, a young person should be able to share it with another person's identity in the form of love and intimacy (Lindzey & Hall, 2002; Vágnerová, 2012). In contrast to romantic relationships in adolescence, the presence of emotional and sexual intimacy and commitment increases in young adulthood. Young adults who have experienced a romantic relationship in adolescence should be more prepared for a stable relationship, are more likely to cohabit with a partner, and are also more likely to marry in young adulthood (Meier & Allen, 2009). Young adulthood is not clearly defined. Petry (2002) and other authors (Foulds et al., 2017; Mireskandari et al., 2009) define it as the period between 18 and 35 years of age, Turrell (2002) as 20 to 35 years and Ehlers and Kupfer (1997) together with Vágnerová (2008) define this period between 20 and 40 years. For the purposes of our research, we have chosen an age range from 18 to 35 years.

A complex model of the relationships between the examined variables explained 83% of the variance of the love components and 7% of the variance of the attachment styles.

Several significant direct effects have been identified in the research sample. The Dark Triad had weak to moderate positive direct effect (criterion according to Suhr, 2006) on the attachment styles. Machiavellianism had a positive, significant relationship with both types of attachment, and a more significant relationship with anxious attachment style. This result contradicts the claims of Brewer et al. (2018) and Brewer and Abell (2017), who identified a rather avoidant type of attachment in Machiavellians. In the case of subclinical narcissism, significant relationships were not observed with any type of attachment. The reason for this may be that the nature of narcissism may vary from individual to individual. The so-called grandiose narcissists are characterized by a sense of their own excellence and the expectation that the environment should behave accordingly, and the narcissist should be acknowledged, but they themselves expects the environment to be unable to do so. The predominant attachment style is avoidant. Anxious attachment style is found in vulnerable narcissism, where the individual expects and needs recognition of the environment, but fears that the environment cannot understand their uniqueness and thus appreciate it. A vulnerable narcissist is sensitive to hypersensitive, anxiously concerned with the adequacy of their personality, but subconsciously perceiving it as unique (Meyer & Pilkonis, 2012). However, since such individuals like to leave their partner in uncertainty (Foster & Brunell, 2018; Peterson & DeHart, 2014), it can be assumed that they should be more inclined to an

anxious attachment style. Subclinical psychopathy has had a significant positive relationship with both types of attachment, which corresponds to other authors who describe the attachment style of subclinical psychopaths as disorganized, that is anxious-avoidant (Brewer et al., 2018; Mayer et al., 2019). Moreover, the results showed, that psychopathy as the only trait from Dark Triad, had positive direct effect on attachment style, what is in compliance with another studies (Brewer et al., 2018; Mayer et al., 2019; Savard et al., 2015).

The attachment style had a strong negative direct effect on the components of love (criterion according to Suhr, 2006). Intimacy, passion and commitment were in a significant negative moderate to strong relationship with both anxious and avoidant types of attachment, and these relationships were stronger with avoidant type of attachment. Madey and Rogers (2009) also report that experiencing certainty, anxiety, or avoidance in relationships is associated with perceived commitment and intimacy in the relationship. According to the findings, the higher anxiety and avoidance the individual experiences in a romantic relationship, the less it is observed they should form a romantic relationship with elements of commitment, intimacy and passion which corresponds to previously published results of Madey and Rogers, who associated a secure attachment style with high intimacy, trust and commitment (Madey & Rogers, 2009).

The features of the Dark Triad are perceived as dispositional characteristics that are relatively stable (Nübold et al., 2017; Sindermann et al., 2018), so we assumed that they could in some way contribute to the nature of the components of love. However, no effect of Dark triad traits on components of love was identified. Machiavellian features were found to be associated with a low level of closeness in a relationship, low intimacy, and a low level of commitment (Ali & Chamorro-Premuzic, 2010b; Jonason et al., 2009). The results correspond with the latter, suggesting that the Machiavellianism and components of love are not in a significant nor strong relationships. For narcissistic individuals are more typical single sexual adventures, which reflect the high level of passion (Ha et al., 2018; Koladich & Atkinson, 2016) but under regular circumstances they do not engage in close relationships in which they would be able to experience commitment (Foster, 2008; Foster & Brunell, 2018). In our research, narcissism also had insignificant weak relationships with all three components of love. Similar results were observed in the research of Ha et al. (2018), but only on a sample of men, women in their sample gained significant result in respect of narcissism and passion. Individuals with subclinical psychopathic traits describe their relationships as not very intimate, as infidelity is often present in the relationship (Ali & Chamorro-Premuzic, 2010a; Jones & Weiser, 2014), or they are only short-term relationships in which there is no space and time to create a commitment. These findings also support our results, as they suggest that there are significant negative relationships between subclinical psychopathy and intimacy and commitment.

The tested model didn't show significantly different results for men and women. This result is in the contrast with the findings of Sternberg and Weis (2006), who speak of the biological conditionality of experiencing love. According to their findings, women are more emotionally involved in relationships, which results in a higher level of attachment. Li and Chan (2012) consider in their meta-analysis, for example, gender differences in perceptions of participation in relationship, empathy, sensitivity or tendencies to use escape strategies. The results from present research recommend further examination of these differences because the result obtained in present research was not convicting. We assume that it could be caused by the number of participants in our sample.

On the other hand, there were significant gender differences between relationships of psychopathy and commitment. Jonason et al. (2013) and Mejia et al. (2020) point that in general, Dark Triad traits are associated

with avoidance of relationship commitment, but there are also studies where psychopathy (the secondary) was positively associated with all love components, commitment as well (Ali & Chamorro-Premuzic, 2010b). Our results showed that the more psychopathic women are, then less commitment in romantic relationship they experience and opposite, the more psychopathic men are, then stronger commitment they experience. Brewer et al. (2018) emphasize that women high in psychopathy are more likely to display attachment avoidance (lower commitment) and Mayer et al. (2019) reported that psychopathy in men was associated with attachment insecurities/anxiety, that is positively linked to commitment (Ho et al., 2012).

There are certain limitations in the research. The Short Dark Triad questionnaire examining the Dark Triad contained items to which respondents could respond by socially desirable answer, thus distorting our results. In the questionnaires examining the attributes of the partnership, the respondents could falsely improve or worsen their current relationship situation, they could convince themselves of their own idea of the relationship they are experiencing. Another challenge is that close relationships are very diverse, which is influenced by the degree of occurrence of the components of love and the values of anxiety and avoidance in the attachment. For example, a long-distance relationship or a partner working abroad can have a significant impact on a passion or intimacy. Cohabitation, engagement or marriage, on the other hand, may overestimate the commitment created by the relationship status. The frequency of the meetings themselves could have a great impact on the final values of the submitted questionnaires. All these observations, and certainly many others, create space for improvement in future research and in specifying the research set.

Conclusion

The aim of the presented study was to enrich the portfolio of research findings concerning the concept of the Dark Triad, the popularity of which has grown in recent years to such an extent that it is even perceived as a counterpoint to the so-called bright side, of which perhaps the best representative is the Big Five model (Oluf & Furnham, 2015). The benefits of this research can be translated to the field of partner counseling. On the basis of deeper knowledge about individuals with pathological personality traits and their experiencing of partnerships, it could be easier for psychologists to understand the relationship of the client; mainly the client's personality and behaviors that negatively affect their relationships and especially their partner. The findings presented herein highlight the importance of attachment style as the element that helps to explain the dynamics of close relationships of people with dark traits which has an impact on intimacy, passion and commitment in relationships. Awareness of this fact could motivate not only professionals but also the general public to think more deeply about their relationships helping to better understand the complexities of security and safety in relationships and allowing time for these to develop. Shared closeness needs to be slowly developed over time both through physical and psychological intimacy in relationships and not expected in the early onset of a relationship.

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Competing Interests

The authors have declared that no competing interests exist.

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