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As with Parents, so with Others and so with God? Relationships among Humanistic Spirituality and Parental and Adult Attachment Styles

Jak z rodzicami, tak z innymi i tak samo z Bogiem?
Związki między duchowością humanistyczną a stylami
przywiązania do rodziców i stylami przywiązania
prezentowanymi w dorosłości

Abstract: This study (N = 449) explores relationships among humanistic spirituality, which in our Humanistic Spirituality Model encompasses the components of self-actualisation, transcendence and ultimate meaning in life, and parental as well as adult attachment styles as lifelong factors in the origin of spirituality. The results indicate that for female participants, humanistic spirituality is predicted by age and secure adult attachment, whereas for male participants, secure attachment to the mother and secure adult attachment are significant positive predictors. Lastly, the effect of secure attachment to the mother on humanistic spirituality for male participants is direct, while for female participants it is indirect and mediated by secure adult attachment.

Keywords: humanistic spirituality; self-actualisation; transcendence; meaning in life; parental attachment styles; adult attachment styles.

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Abstrakt: Niniejsze badania ($N = 449$) odnoszą się do relacji między duchowością humanistyczną, która w zaproponowanym Modelu Duchowości Humanistycznej obejmuje komponenty samorealizacji, transcendencji i ostatecznego sensu życia, a stylami przywiązania do rodziców i stylami przywiązania prezentowanymi w dorosłości jako całościowymi czynnikami znajdującymi się u źródeł duchowości. Wyniki wskazują, że według uczestniczek badania duchowość humanistyczna jest związana z wiekiem i bezpiecznym przywiązaniem w dorosłości, podczas gdy według uczestników istotnymi predyktorami pozytywnymi są bezpieczne przywiązanie do matki i bezpieczne przywiązanie w dorosłości. Ponadto według uczestników płci męskiej bezpieczne przywiązanie do matki wpływa bezpośrednio na duchowość humanistyczną, podczas gdy według uczestniczek płci żeńskiej wpływ ten jest pośredni i zapośredniczony przez bezpieczne przywiązanie w dorosłości.

Słowa kluczowe: duchowość humanistyczna; samorealizacja; transcendencja; sens życia; style przywiązania do rodziców; style przywiązania w dorosłości.

1. Introduction

Spirituality is a fundamental human drive that facilitates advanced ways of thinking, feeling and behaviour. Essential goals of human development such as perspective-taking, learning 'how to see,' empathy and self-awareness, which make for a full realisation of what it is to be a human being (Zajonc, 2016), are highly informed by an individual's spirituality. It is the most widespread social phenomenon (Rosmarin et al., 2021) and serves as a major determinant of adaptive functioning (Hood et al., 2009; Peres et al., 2018) and physical as well as mental health (Davison & Jhangri, 2013; Hodapp & Zwingmann, 2019; Lawler-Row, 2010; Lee et al., 2014).

Spirituality may also be regarded as a personal quest for discovering the answers to ultimate questions about life, meaning and relationship to the sacred or transcendent (Koenig et al., 2000). Indeed, all the current models of spirituality (e.g., King & DeCicco, 2009; MacDonald, 2000; Piedmont, 1999; Rousseau, 2014; World Health Organization, 1998) include a universal component of belief in the Higher Power, though called differently in the models, e.g., religiousness, the transcendence dimension, transcendental awareness, connectedness to a spiritual being or force, etc. Another component present in most prominent models is meaning in life, while other dimensions and elements of spirituality capture the aspects of innerness, selflessness, self-fulfilment as well as depth,

broadness and maturity of thinking. All these dimensions of spirituality neatly align with the basic tenets of the humanistic perspective and are included in our multidimensional Humanistic Spirituality Model (Kontrimienė, 2019), which contains three major components: self-actualisation, transcendence and ultimate meaning in life.

Concerning the origin of humanistic spirituality, it must be noted that a person's ability to become their best self is contingent upon early life experiences with parents: Maslow (1997) noted that sufficient parental love and satisfaction of physiological and safety needs within the first two years of life were prerequisites for self-actualisation. Equally important here are conditions of worth developed by the individual. In the words of Rogers (1959), 'A condition of worth arises when the positive regard of a significant other is conditional, when the individual feels that in some respects he is prized and in others not' (p. 209).¹ Admittedly, insufficient love, unsatisfied needs and conditions of worth give rise to insecure childhood attachment, which may translate into insecure adult attachment and the individual's inhibited growth potential.

To gain a better understanding of these influences, our study examines whether humanistic spirituality is contingent upon certain experiences in childhood and adulthood captured through parental and adult attachment styles. Exploration of these relationships is paramount for the understanding of how relationships with significant others decide the person's spiritual development, given the dearth of research on the links between attachment and components of spirituality as conceptualised in our model. To name a few, Otway and Carnelley (2013) and Mikulincer and colleagues (2003) produced inconsistent findings on the associations between secure and insecure adult attachment, self-actualisation and self-transcendence. Notably, Otway and Carnelley (2013) found that attachment avoidance and attachment anxiety predicted low levels of self-actualisation, and attachment avoidance predicted low self-transcendence. However, the authors did not establish a significant relationship between secure adult attachment and self-actualisation or self-transcendence, although Mikulincer and colleagues (2003) found that secure attachment to significant

¹ Conditional regard of a significant other is then assimilated into one's own self-regard complex so that self-experience is valued positively or negatively solely because these conditions of worth have been taken over from others and not because the experience enhances or fails to enhance one's organism (Rogers, 1959).

others and lower attachment avoidance promoted endorsement of self-transcendence values.

To address these inconsistencies and the failure of previous studies to explore the origin of all three dimensions of spirituality included in our model, the present study aims to explore relationships among humanistic spirituality and parental and adult attachment styles.

1.1. Humanistic Spirituality

Historically, the Western culture used to view spirituality as going hand in hand with religion, but this tendency is now changing, as many people feel traditional religion has failed to meet their spiritual needs and call themselves spiritual, even if not religious. Religion may be defined as ‘adherence to a belief system and practices associated with a tradition and community in which there is agreement about what is believed and practiced’ (Davis et al., 2017, p. 243). Comparatively, spirituality may be viewed as a more general feeling of connection to or search for the Sacred (Rindt-Hoffman et al., 2019). This difference has resulted, *inter alia*, in the modification of the understanding of the Higher Power and the ultimate purpose of human existence, which are reflected in our Humanistic Spirituality Model (Kontrimienė, 2019).

The model is theory-driven and is based on the writings of Abraham Maslow (1969, 1997 [1954], 1993 [1971]), David Elkins (2015; Elkins et al., 1988), Merold Westphal (2004) and others. It comprises three major components: self-actualisation, transcendence and ultimate meaning in life.

Self-actualisation implies the full functioning of individuals, i.e., mental and psychological health. Maslow (1993, p. 42) describes self-actualising individuals, who have reached this highest life, who are driven by meta needs and live by Being-values, as ‘very fine and healthy people, strong people, creative people, saintly people, sagacious people’ involved in a cause outside their own skin, in something outside themselves.

Self-actualisation is also a matter of degree or little accessions accumulated one by one. Maslow (1997) depicted self-actualising persons elaborately by ascribing the 15 most important, whole characteristics to them.²

² These are: a more efficient perception of reality and more comfortable relations with it;

In Maslow's (1997, 1993) words, self-actualising individuals are very different from others, like aliens in a strange land. They love mystery, tolerate uncertainty and ambiguity and see the world for what it is, not for what it should be. They have an innocent eye untainted by shame, guilt or anxiety and are not ego-centric, as they do not pose any problems for themselves and are not self-inflated. They have more profound interpersonal relations than any other adults, as they are capable of more fusion, greater love, more perfect identification, and more obliteration of the ego boundaries. They also have a mission in life, do not take their blessings for granted and have a genuine desire to help the human race, as if they were all members of a single family. They can do many things better than others can, the truth that is so clear to them is for most people veiled. They tend to have peak experiences, or feelings of limitless horizons opening up to their vision, the feelings of great ecstasy and wonder and awe. Yet, they also have a humility of a certain type and are all quite well aware of how little they know in comparison with what could be known. They are more original, inventive, more natural, more human and could be described as those who walk in the path of God (in the metaphysical sense), or as godly persons.

This component of our model includes three main facets (openness to experience, self-fulfilment and interpersonal relationships) as well as eight facet-delineating indicators and seventeen empirical manifestations of the indicators (see Table 1).

Transcendence may manifest in the traditional belief in the supernatural, the Higher Power, the 'more than what is seen' (Kontrimienė, 2019). Importantly, in the later expanded version of his motivational theory, Maslow (1969, 1993) viewed transcendence as the last step in the hierarchy of needs, which stretches beyond self-actualisation, which may be a springboard or a prerequisite for but not the final step in the becoming of an individual whom Maslow called the 'transcendent self-actualising man' (p. 260).

acceptance of self, others, and nature; spontaneity, simplicity, naturalness; problem-centering; the quality of detachment and the need for privacy; autonomy, independence from culture and environment, and will; continued freshness of appreciation; the mystic experience, the peak experience; *Gemeinschaftsgefühl* (social interest); interpersonal relations; a democratic character structure; discrimination between means and ends, between good and evil; a philosophical, unhostile sense of humour; creativeness; and resistance to enculturation.

Table 1. The Humanistic Spirituality Model

Components	Facets	Indicators	Empirical Manifestations
1. Self-actualisation	Openness to experience	Efficient perception of reality	<ul style="list-style-type: none"> • Ability to appreciate what one has. • Ability to judge people correctly. • Comfortable relationship with the unknown.
		Spontaneity	<ul style="list-style-type: none"> • Naturalness. • Directness.
		Creativity	<ul style="list-style-type: none"> • Inner inspiration. • Inventiveness.
		Peak experiences	<ul style="list-style-type: none"> • Mystic transformative experiences.
	Self-fulfilment	Personal growth	<ul style="list-style-type: none"> • Fulfilment of individual potentialities. • Adequate view of personal misfortunes.
		Detachment	<ul style="list-style-type: none"> • Ability to tolerate solitude. • Independent of the opinions of others.
	Interpersonal relationships	<i>Gemeinschaftsgefühl</i> (social interest)	<ul style="list-style-type: none"> • Feeling of closeness with other people. • Compassion. • Care and concern for others.
Profound relationships		<ul style="list-style-type: none"> • Selectivity in relationships. • Genuinely loving relationships. 	
2. Transcendence	Transcendence to the supernatural reality	Belief in the supernatural	<ul style="list-style-type: none"> • Acceptance of the supernatural. • Experience of the supernatural. • Trust in the Higher Power (God).
	Rising to the realm of Being	Self-transcendence	<ul style="list-style-type: none"> • Ability to rise above own limitations. • Ability to overcome self-absorption.
		Holistic view of reality	<ul style="list-style-type: none"> • Continual reflection on the order of life. • Living by the highest Being-values.
3. Ultimate meaning in life	Highest meaning-making	Highly meaningful life	<ul style="list-style-type: none"> • Awareness of the significance of life. • Living by the ultimate (belief and love-driven) meaning. • Highest purpose in life.

Source: Kontrimienė, 2019.

Within the humanistic perspective, transcendence is also understood as a dimension to life whose actual content may range from the traditional view of a personal God to a psychological view that this dimension is simply a natural extension of the conscious self into the regions of the unconscious or Greater Self (Elkins et al., 1988; Elkins, 2015).

Transcendence also implies self-transcendence, which entails the ability to go beyond a purely egoistical preoccupation with the self and surpass current limitations, to become closely involved with the external world and, ultimately, with the transcendent God. According to Maslow (1993), it involves the ability to transcend the lower needs of the self, that is, one's selfish within-the-skin demands. This is the ultimate meaning of the phrase 'to perceive the world objectively' (p. 261), which implies getting off the merry-go-round, moving from dichotomies to superordinate wholes, being clean even amidst filth, and rising to the Being cognition, when one identifies with B-Values and ascends to the level of synergy and cosmic consciousness. Transcendence also means 'to become divine or godlike, to go beyond the merely human' (p. 264). Yet, Maslow urges one not to make anything extra-human or supernatural out of his statement. He applies the words 'metahuman' or 'B-human' to stress that this rising very high or becoming divine or godlike is part of the potentiality of human nature.

Westphal (2004) similarly notes that the modes of human self-transcendence are intertwined with divine transcendence and centre on alterity, the decentred self, and the autonomous transcendental ego. All in all, it can be said that transcendence presupposes the transient attainment of full humanness and finality.

In our model, this component contains two main facets (transcendence to the supernatural reality and rising to the realm of Being) as well as three facet-delineating indicators and seven empirical manifestations of the indicators (see Table 1).

The component of *ultimate meaning in life* should not be viewed relativistically within the framework of the humanistic approach, as it draws on the Kantian philosophy, *inter alia*, according to which the categorical imperative expresses a general requirement for everyone to follow and affords a universal understanding of meaning in life sculpted by the highest spiritual values (Kontrimienė, 2019). Stated differently, the quality of one's meaning in life depends on how loaded it is with sacred experience, which could be defined

in numerous ways – the numinous experience (Otto, 1961), hierophany, or something sacred (Eliade, 1961), the sacred I-Thou relationship (Buber, 1970), or the sacred powerful dimension of life (Elkins, 2015) which manifests itself through poignant moments, the peak experiences and mystical encounters. Maslow (1993) noted that peak experiences are often transient; yet, an insight remains with the person that they cannot become naive or innocent or ignorant again, the way they were. They cannot ‘un-see’ (p. 265). Such an awakened person normally proceeds in a unitive way or in a B-cognising way as an everyday kind of thing. This serene B-cognition can come under one’s own control, as one can turn it off or on as one pleases.

It could be stated that the ultimate faith-inspired meaning in life provides the attainment of B-level objectivity in the non-involved, neutral, uncaring, spectator-type objectivity (which itself transcends the purely egocentric and immature lack of objectivity). It also provides a colouring to every event and helps one envision the highest purpose in life, which is spiritual becoming.

This component of the model comprises one facet (the highest meaning-making), one indicator and three empirical manifestations of the indicators (see Table 1).

The proposed Humanistic Spirituality Model served as the basis for the creation of the Humanistic Spirituality Inventory (HSI), a validated measure of humanistic spirituality (Kontrimienė, 2019) used in the current study to explore the origin of such spirituality by probing its relationships with parental and adult attachment styles.

1.2. Secure and Insecure Attachment Styles

Attachment styles are specific tendencies individuals develop during their life that govern how they seek and maintain proximity to a person who can facilitate their capacity to cope with threats and dangers (Bowlby, 1973). Bowlby (1973) explored the secure and insecure patterns of attachment through the ethological approach to human fear³ and argued that anxious attachment may

³ Bowlby (1973) notes that the fear response to inaccessibility of the mother can usefully be regarded as a basic adaptive response that during the course of evolution has become an intrinsic part of an individual’s behavioural repertoire because of its contribution to species survival.

result from an individual's susceptibility to fear, which, through misattribution and projection, is explicable in four ways:

- 1) The subject has rightly detected harmful intent in the other person and in so doing, has been more sensitive to the situation than the on-looker.
- 2) The subject during childhood has learned that significant people are often hostile when they claim to be friendly, and is therefore prone, through a process of assimilation, to suppose that figures met with in later life are also hostile, when they are not.
- 3) The subject, aware that he/she is no friend of the other person and even that he/she is disposed to do him harm, not unnaturally expects his/her ill intent to be reciprocated.
- 4) The subject, unaware of his/her own ill intent, maintains that, whereas he/she is friendly to the other, the other is hostile to him/her (Bowlby, 1973, pp. 173–174).

According to Bowlby (1973), the world, as reflected in the feeling, is distinct from, though correlated with, the world as it is; confidence in the accessibility and responsiveness of attachment figures, or a lack of it, is built up slowly during all the years of immaturity and, once developed, expectations tend to persist relatively unchanged throughout the rest of life. Human beings of all ages are found to be at their happiest and able to deploy their talents to the best advantage when they are confident that, standing behind them, there are one or more trusted persons who will come to their aid, should difficulties arise.

The secure and insecure patterns of children's attachment to parents were described in Ainsworth's theory (1985; Ainsworth & Bell, 1970) through three attachment styles named *secure*, *insecure-ambivalent* and *insecure-avoidant*. The *secure style* develops in children who use the attachment figure as a safe base to explore the environment, as well as in times of distress. The *insecure-ambivalent style* refers to children who exhibit clingy and dependent behaviour but tend to reject the attachment figure in an interaction. The *insecure-avoidant style* characterises children as very independent of the attachment figure both physically and emotionally, they do not seek contact with the attachment figure when distressed.

These three patterns of attachment are decisive in the development of the perception of the self represented as internal working models (or schemas)

that govern behaviour. The two internal working models, that of the worthy- or not-worthy-of-love self and that of the available and supportive or unreliable and rejecting others, as proposed by Bowlby (1973), decide which of the four (not three) attachment styles individuals develop in adulthood (Bartholomew & Horowitz, 1991). The *secure attachment style* in adulthood presupposes a positive perception of the self as worthy of love and a positive regard of others as available and trustworthy; it often leads to the creation of mature trusting relationships. The *ambivalent style* is associated with a negative perception of the self and a positive perception of others, which increases the likelihood of preoccupation with relationships. The *dismissing-avoidant style* entails a positive perception of the self and a negative perception of others, for which reason close relationships are avoided. Finally, the *fearful-avoidant style* presupposes a negative perception of both the self and others and may result in an urge to seek proximity but remain detached from significant others to protect emotions.⁴

Some earlier studies have found links between secure parental and/or adult attachment and spirituality (Frielingsdorf, 2017; Granqvist & Kirkpatrick, 2008; Granqvist & Hagekull, 2003; Hiebler-Ragger et al., 2016; Mikulincer et al., 2003). Such associations can be explained by a complex mechanism of reactions to the surrounding world: individuals with secure attachment in adulthood are able to cope with negative experiences using mental representations of care they received earlier in life (Mikulincer & Shaver, 2004). Moreover, their deep-seated security frees the resources necessary for turning to others and recognising not only own desires and needs but also those of others, which furthers the striving for autonomy and interconnectedness (Flores, 2004).

Conversely, avoidant attachment often leads to a negative view of the Other and a tendency to avoid closeness and connectedness, whereas anxious attachment brings forth a negative view of the self and a tendency to worry about possible abandonment in the future. Bowlby (1982) argued that the experience of distress and the disruption of the sense of attachment security activate the attachment system by inhibiting other behavioural systems (those of affiliation,

⁴ The typology of attachment patterns may be too simplistic and too static, as many people do not fit neatly into a single category or identify with more than one category. We all lie somewhere on each of the attachment style dimensions – ranging from *not at all me* to *very much me*, with most people somewhere in between the extremes (Kaufman, 2020).

exploration or caregiving). In this case, people turn to others mainly in search of support, as they are occupied with regulating their own distress and do not turn to the Other when the Other needs this since they have fewer available resources for engaging in affiliation, exploration and/or caregiving activities. The latter may be paramount for the development of humanistic spirituality, as facets such as openness to experience, interpersonal relationships and transcendence to the supernatural reality entail connectedness and the ability to stretch beyond own limitations and turn to the Other, be it a person or, in the words of Stoker (2011, p. 5), 'the absolute, Mystery, the Other, the other as other or as alterity.' Lastly, the patterns of attachment behaviours are maintained and developed throughout the lifespan (Doyle & Cicchetti, 2017) – in the words of Bowlby (1979), attachment behaviour characterises human beings from the cradle to the grave.

Self-actualisation, transcendence and ultimate meaning in life served as criterion variables in our exploration of how parental and adult attachment styles impact humanistic spirituality, as we hypothesised that the quality of relationships individuals establish with their caregivers may translate into their relationships with the Other (i.e., other people), the Higher Power and, hence, their spirituality.

2. Method

Participants. The study used a targeted convenience sampling technique to recruit students from five Lithuanian universities: Vilnius University, Vytautas Magnus University, Kaunas University of Technology, Klaipeda University and Vilnius Academy of Fine Arts. The sample consisted of 449 students from 68 study programmes in all fields of study, 122 (27%) males and 327 (73%) females, ranging in age from 18 to 57 ($M = 21$, $SD = 3.9$). The participants signed the informed consent form and completed an online survey containing the self-report study measures in Lithuanian.

Measures. *The Humanistic Spirituality Inventory* (HSI; Kontrimienė, 2019). The HSI is a 40-item (16 reverse scored) inventory designed to measure the multidimensional construct of humanistic spirituality through three scales: *Self-actualisation* (SA) (23 items, e.g., 'I believe that even the biggest blows in life would not break me'); *Transcendence* (Tr) (9 items, e.g., 'I often engage in deep

reflection, meditation and/or prayer’); and *Ultimate Meaning in Life (UML)* (8 items, e.g., ‘My faith allows me to see meaningful ties among things which are not directly related’). Items are rated on a Likert scale with options ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The HSI yields four separate scores for each participant: a total HSI score and scores for self-actualisation, transcendence and ultimate meaning in life. The higher the score, the greater the appraised level of each. Cronbach’s alpha estimates in the current study were $\alpha = .878$ for the overall HSI, $\alpha = .746$ for the *Self-actualisation Scale*, $\alpha = .865$ for *Transcendence*, and $\alpha = .793$ for the *Ultimate Meaning in Life Scale*.

Inventory of Parent and Peer Attachment (IPPA) (Armsden & Greenberg, 1987), which assesses perceptions of the affective/cognitive dimension of relationships with parents and close friends, particularly how well these figures serve as sources of psychological security along the three dimensions of *Degree of Mutual Trust* (e.g., ‘I feel my mother does a good job as my mother’), *Quality of Communication* (e.g., ‘I feel it’s no use letting my feelings show around my mother’), and *Extent of Anger and Alienation* (e.g., ‘Talking over my problems with my mother makes me feel ashamed or foolish’). Responses are rated on a five-point Likert scale. The current study used the Mother and Father versions of the instrument comprised of 25 items in each section. The inventory taps secure, ambivalent and avoidant attachment styles based on score distributions of each IPPA subscale divided into the lowest, middle and highest thirds. Individuals are assigned to the secure group if their *Alienation* scores are not high and if either of their *Trust* or *Communication* scores are high and the other one is medium or if *Trust* and *Communication* are both at the medium level but *Alienation* is low. Ambivalent attachment implies medium levels of *Trust* and *Communication* and not low *Alienation*. Avoidant attachment implies low scores on *Trust* and *Communication* and medium or high scores on *Alienation*. Cronbach’s alpha coefficient values in the present study were $\alpha = .947$ for *Degree of Mutual Trust with the Mother*, $\alpha = .923$ for *Degree of Mutual Trust with the Father*, $\alpha = .926$ for *Quality of Communication with the Mother*, $\alpha = .884$ for *Quality of Communication with the Father*, $\alpha = .812$ for *Extent of Anger and Alienation with the Mother*, and $\alpha = .880$ for *Extent of Anger and Alienation with the Father*.

The Relationship Questionnaire (RQ); Bartholomew & Horowitz, 1991) comprises four short paragraphs, each describing an attachment pattern (secure, preoccupied, fearful and dismissing) in close adult peer relationships, e.g., ‘I am

uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely or to depend on them. I worry that I will be hurt if I allow myself to become too close to others' (*Fearful*). Participants rate the extent to which each statement describes their style by circling the letter corresponding to the style closest to their general approach to their close relationships.

Data analysis. The data were analysed using the SPSS 23.0 software package to calculate descriptive statistics and distribution of variables, run intergroup comparisons (the Student's t-test and the chi-square test) and perform correlation (Pearson and Spearman), multiple regression and mediation analyses to explore the relationships among the study variables.

3. Results

Differences by gender. Our analysis of gender differences among participants (the Student's t-test) shows significant variance in the most important variable, the overall humanistic spirituality: female students scored higher than males ($M = 159, SD = 30$ vs $M = 147, SD = 28, p < .001, t = -3.272$). Female students also obtained significantly higher scores on transcendence ($M = 30.1, SD = 12$ vs $M = 25.5, SD = 11, p < .05, t = -3.475$) and ultimate meaning in life ($M = 33.2, SD = 9$ vs $M = 26.6, SD = 10, p < .05, t = -5.991$), although differences in self-actualisation were not significant ($M = 94.9, SD = 15$ vs $M = 94.6, SD = 14, p > .05, t = -.112$).

A comparison of participants by the variables reflecting dimensions of attachment to parents (degree of mutual trust, quality of communication and extent of anger and alienation) and analysis of nominal variables of adult attachment (the chi-square test) suggest that neither attachment to parents nor attachment in adulthood significantly depend on the participants' gender in the current study.

Relationships among humanistic spirituality and attachment styles. Considering that the female and male participants in our study differed significantly on the most important variables, further analyses were performed separately for both groups. First, bivariate Pearson and Spearman correlations of the study variables indicate (see Table 2) that the total humanistic spirituality score for female participants is linked negatively to ambivalent attachment to

Table 2. Correlations between humanistic spirituality and attachment styles

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Age	–	.1	.12*	.0	.1	.17**	.0	-.14**	.1	.0	.0	.2**	-.1	-.1	.0
2. HSI	.0	–	.81***	.86***	.84***	-.1	.0	.1	.1	-.2**	.16**	-.1	-.1	-.1	.17**
3. HSI SA	.0	.75***	–	.43**	.45**	-.1	-.1	.14**	.1	-.24**	.19**	.0	-.13*	-.13*	.24**
4. HSI Tr	.0	.84***	.33**	–	.79**	.0	.0	.0	.0	-.14*	.12*	-.1	.0	.0	.1
5. HSI UML	.0	.84***	.36***	.77***	–	.0	.0	.0	.1	-.1	.1	-.1	.0	.0	.1
6. Avoidant/mother	.33**	-.28*	-.2	-.2	-.24*	–	-.16**	-.54***	.14*	.1	-.17**	.1	.1	.0	-.16**
7. Ambivalent/m	.0	-.2	-.2	-.1	-.1	-.2	–	-.74***	.0	.16**	-.15**	.0	-.1	.0	.0
8. Secure/m	-.22*	.35**	.3**	.23*	.29**	-.51***	-.75***	–	-.1	-.19**	.24**	-.1	.0	-.1	.10*
9. Avoidant/father	.0	-.2	-.1	-.2	-.37**	.23*	.0	-.1	–	-.33**	-.24**	.1	.0	.0	-.1
10. Ambivalent/f	.1	-.1	-.2	.0	.0	.1	.2	-.2	-.34**	–	-.84***	.0	.0	.0	-.1
11. Secure/f	-.1	.2	.2	.1	.2	-.26*	-.2	.31**	-.2	-.86***	–	.0	-.1	.0	.1
12. Dismissing	.0	.1	.1	.0	-.1	.1	.1	-.1	.0	-.1	.1	–	-.23**	-.29**	-.29**
13. Fearful	.1	-.1	-.2	.0	.0	.0	.2	-.2	.1	.25*	-.34**	-.3**	–	-.35**	-.36**
14. Preoccupied	-.1	-.29**	-.31**	-.2	-.2	.0	-.2	.2	.0	.0	.0	-.39**	-.34**	–	-.46**
15. Secure	.0	.33**	.35**	.1	.3**	-.1	-.1	.1	-.1	-.2	.24*	-.32**	-.28*	-.36**	–

Note. Coefficients for female students are presented above and for male students below the diagonal.

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

the father ($r = -.2, p < .01$) and positively to secure attachment to the father ($r = .16, p < .01$), as well as secure adult attachment ($r = .17, p < .01$). For male participants, the total HSI score correlates positively with secure attachment to the mother ($r = .35, p < .01$) and secure adult attachment ($r = .33, p < .01$) and there are negative links to avoidant attachment to the mother ($r = -.28, p < .05$) and preoccupied adult attachment ($r = -.29, p < .01$).

Other correlations among the study variables are for the most part intuitive and suggest that the components of humanistic spirituality correlate very significantly among themselves, as do some attachment styles.

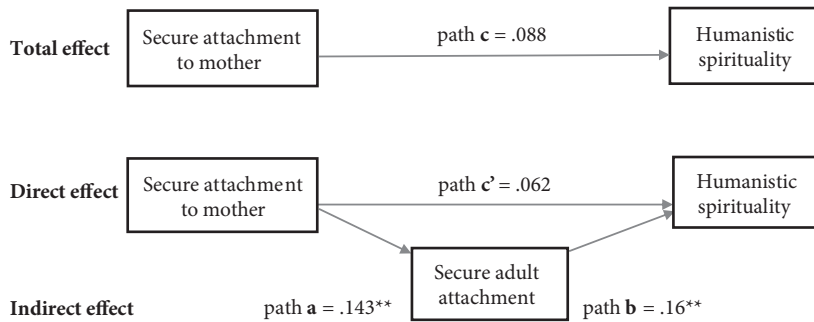
The next stage of our analysis explored how parental and adult attachment styles predicted humanistic spirituality. As Bowlby (1979) and Ainsworth (1985) viewed attachment styles as fundamentally dyadic, two multiple regression models were developed for female and male participants separately, in which parental and adult attachment styles served as binary independent variables and humanistic spirituality as a continuous dependent variable. The results suggest that both models are significant in predicting humanistic spirituality ($F(4, 325) = 3.736, p < .01$ for females and $F(4, 69) = 6.035, p < .001$ for males).

The first model (see Table 3) shows that for female participants, statistically significant positive predictors of humanistic spirituality are older age ($\beta = .134, t = 2.416, p < .05$) and secure attachment in adulthood ($\beta = .126, t = 2.299, p < .05$).

For male participants (see Table 4), humanistic spirituality is significantly predicted by secure attachment to the mother ($\beta = .364, t = 3.125, p < .01$) and secure adult attachment ($\beta = .273, t = 2.542, p < .05$).

Hence, the only determinant of the origin of spirituality that applies to both female and male participants in our study is secure attachment in adulthood.

Lastly, to examine the relationships among the study variables, a mediation analysis was performed for female and male participants separately with spirituality as the criterion, secure attachment to the mother as the independent, and secure adult attachment as the mediating variable. The results indicate that for female participants, secure attachment to the mother does not predict humanistic spirituality directly but there is an indirect effect of secure attachment to the mother through secure adult attachment (path $c = .088, R^2 = .008, p > .05$; path $a = .143, R^2 = .02, p < .01$; path $b = .16, R^2 = .032, p < .01$, see Figure 1).



Note. Regression coefficients are unstandardised, $**p < .01$.

Figure 1. Model of secure adult attachment as a mediator of the relationship between secure attachment to the mother and humanistic spirituality in female participants

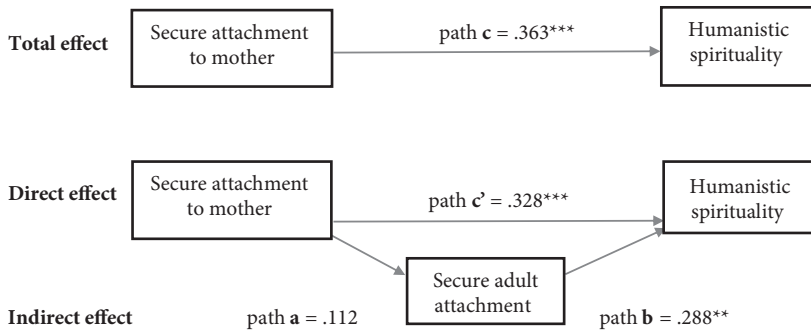
Table 3. Parental and adult attachment styles as predictors of humanistic spirituality in female participants

Predictors	B	SE	β	t	p
Age	1.201	.497	.134	2.416	.016
Secure attachment to mother	3.486	2.575	.077	1.354	.177
Secure attachment to father	3.372	2.73	.069	1.235	.218
Secure adult attachment	3.639	1.583	.126	2.299	.022
$R^2 = .044$, $F(4, 325) = 3.736$, $p = .005$					

Table 4. Parental and adult attachment styles as predictors of humanistic spirituality in male participants

Predictors	B	SE	β	t	p
Age	.946	0.609	.169	1.554	.125
Secure attachment to mother	14.99	4.797	.364	3.125	.003
Secure attachment to father	4.048	5.781	.08	.7	.486
Secure adult attachment	18.75	7.377	.273	2.542	.013
$R^2 = .026$, $F(4, 69) = 6.035$, $p = .000$					

Conversely, for male participants, the effect of secure attachment to the mother on spirituality is direct and not mediated by secure adult attachment, as the path between secure attachment to the mother and secure adult attachment breaks (path $c = .363$, $R^2 = .132$, $p < .001$; path $a = .112$, $R^2 = .015$, $p > .05$; path $b = .288$, $R^2 = .213$, $p < .01$, see Figure 2).



Note. Regression coefficients are unstandardised, ** $p < .01$, *** $p < .001$.

Figure 2. Model of secure adult attachment as a mediator of the relationship between secure attachment to the mother and humanistic spirituality in male participants

In conclusion, the results of our study indicate that female participants exhibit higher levels of overall humanistic spirituality, transcendence and ultimate meaning in life than male participants. For females, significant positive predictors of humanistic spirituality are older age and secure adult attachment, whereas for males, spirituality is significantly predicted by secure attachment to the mother (but not the father) and, again, secure adult attachment. Lastly, for female participants, the effect of secure attachment to the mother on spirituality is indirect and mediated by secure adult attachment, whereas for male participants, the effect of secure attachment to the mother on spirituality is direct and not mediated by secure adult attachment.

4. Discussion

To begin with, the results of our study indicate several important tendencies, e.g., significant gender differences in levels of overall humanistic spirituality as well as its two components, transcendence and ultimate meaning in life. This is in line with the findings of some other studies which have established a gender gap in religious and spiritual predispositions (Kirk et al., 1999; Trzebiatowska & Bruce, 2012; Stark, 2002; Hackett et al., 2016). It has been debated that this gender gap may be caused by differences in risk preference between men and women (Miller & Hoffmann, 1995; Hoffmann, 2019; Freese & Montgomery, 2007; Collett & Lizardo, 2009; Edgell et al., 2017). The risk preference theory posits that the gender gap in religiosity is a consequence of men's greater propensity to take risks and that irreligiosity is analogous to other high-risk behaviours typically associated with men because non-belief risks eternal punishment such as going to hell (Miller & Hoffmann, 1995; Miller & Stark, 2002). Yet, this theory has not been reliably supported, as some studies have found that the risk preference hypothesis is not a compelling explanation of women's greater average religiosity (Roth & Kroll, 2007; Li et al., 2020).

We contend that biological determinants might obviate socialisation explanations for greater female spirituality, especially concerning gender differences across dimensions of spirituality, as there is evidence, for example, that women report higher levels of prayer and intimacy with God but not greater orthodoxy or importance of religion (Feltey & Poloma, 1991), and that gender differences are smaller in 'active' religiousness than in 'affective' religiousness (Sullins, 2006). It could be that women score higher on certain dimensions of spirituality due to higher levels of the hormone estrogen, associated not only with a deep interest in other people and more sensitive communication with them but also the ability to create proximity, unite the opposites, focus on wider concepts, synthesise diverse principles and, importantly, tolerate ambiguity (Baron-Cohen, 2003; Fisher, 2009, 2016). Estrogen-laden individuals live in a world where everyone has to win, and their main talent is empathy (Bartz et al., 2010). The latter tendency reflects in *Gemeinschaftsgefühl*, or social interest, which is one of the indicators of spirituality in our model that allows people to form deeper-than-usual interpersonal relationships, have a fuller knowledge of beloved ones and seek psychological intimacy. Conversely, men tend to be more

sceptical towards such things, partly because of their higher testosterone levels (Brizendine, 2011; Fisher, 2016).

Our findings also suggest that for female participants, humanistic spirituality is significantly predicted by older age. This confirms the contentions of other researchers who argue that the lifelong maturity of personality is a normative phenomenon. Vaillant (1995) notes that wisdom increases with age and decreases the use of immature defence mechanisms; Midlarsky, Kahana and Belser (2015) find that with age, people become more altruistic and prosocial and that prosocial behaviour in older adults is motivated by empathic concern, religious obligation and a sense of duty; similarly, Maslow (1997, 1993) noted that personality continues to grow throughout the lifespan, as increasingly more needs are met and it becomes possible to turn towards the higher realm of being. All in all, the importance of age in predicting spirituality may be accounted for by the change in human priorities with age; therefore, self-actualisation, transcendence and the ability to perceive the ultimate meaning in life become more accessible. This tendency has been supported by other studies: for example, it was found that individuals over 36 had higher motives and needs compared to younger people (Reiss & Havercamp, 2005) and tended to be more self-actualised (Ivtzan et al., 2013).

Yet, our results also show that for male participants, age does not serve as a significant predictor of spirituality, a more important etiological factor being secure attachment to the mother. This is in line with the findings of some studies that have established that the quality of attachment to parents, especially the mother, determines the quality of attachment to God (Frielingsdorf, 2017; Gnaulati & Heine, 1997; Granqvist, 2002; Sim & Loh, 2003). Reinert (2005) revealed that people securely attached to their mothers have a significantly better relationship with God; conversely, anxious attachment to the mother is associated with frustration with God. Such attachment creates an unsettling image of God as an unreliable caregiver who does not always respond, and who rejects and punishes. These mechanisms can best be explained by Bowlby's (1973) *correspondence* hypothesis, which posits that mental models generalise across other attachment relationships and, hence, may extend to the perceived beliefs about (and relationships with) God.

Our results also indicate that for female participants, secure attachment to the mother does not predict spirituality directly, although, in general, they scored higher on spirituality than their male peers. This finding may be ac-

counted for by Ainsworth's (1985) *compensation* hypothesis, according to which insecurely attached individuals may develop an attachment to God as a surrogate for positive human attachment figures. Such a relationship can even compensate for the shortcomings of the child's early attachment to their parents because God is taken to be omnipresent and omniscient, unencumbered by human restrictions. For such individuals, there is perhaps always someone present, who is equated ultimately and unconsciously with the mother. The latter notion is bolstered by the finding that for females, secure attachment to the mother is only important in regard to spiritual development inasmuch as it translates into secure adult attachment. Admittedly, these mechanisms are very complex and there may be no simple explanations, but the correspondence and compensation tendencies can be seen as two determinants of being theistic.

We believe that secure adult attachment, which is the only positive predictor of humanistic spirituality that applies to both female and male participants in our study, serves as a basis for the formation of all the three components of spirituality included in our model because such attachment follows from a positive image of the self and the Other and increases confidence in the Other. It also serves as a foundation for self-actualising love as whole love, an enduring relationship continually and reciprocally in a state of health, growth and transcendence (Kaufman, 2020). Maslow (1993) observed that in transcendence one becomes perfect, can love all and accept all, forgive all and be reconciled even to evil that hurts.

Secure attachment also adds to the zeal and openness to experience, to the ability to transcend the self and leave one's 'comfort zone,' all of which may be enabled by or translate into a secure bond with the Higher Power. Importantly, other studies have shown that people securely attached to God experience less mood pathology, less loneliness, better health and greater satisfaction with life (Hiebler-Ragger, 2016; Kirkpatrick & Shaver, 1992; Malik et al., 2014).

We may sum up that spirituality begins to form from the earliest experiences of the person without their conscious understanding of how it happens. Early attachment provides a framework within which individuals develop their attitudes towards the world decisive for trajectories of spiritual development. Parental love equips the child with lasting inner happiness and the ability to develop own potential and grow spiritually. Indeed, our findings suggest that spiritual development often occurs as per the principle 'as with Mother, so with others and so with God,' whereby the concept of God or the Higher

Power formed by a person is to a large extent a projection of the feelings they have for their mother. For males, this projection is direct and for females, it is enacted through secure attachment to other individuals in adulthood. However, attachment is by far not the most salient determinant of spiritual development, as the results of our multiple regression models explain only a relatively small amount of the variance in the humanistic spirituality variable.

The results of the present study should be treated with some caution. First, the sample was predominantly female, and participants were recruited voluntarily, which might have produced a certain response bias. Second, the data may have been susceptible to socially desirable responding, as the study relied exclusively on self-report measures. Third, the survey was administered in Lithuanian, which might slightly reduce the generalisability of our results to other populations. Yet, given that all the instruments are available in English, there is a high likelihood of achieving comparable results in English-speaking populations too.

Finally, a major limitation stems from the study's cross-sectional survey design, in which only association, but not causation, can be demonstrated. As such, we are unable to infer whether adult attachment precedes humanistic spirituality, or perhaps *vice versa*. Future studies might investigate other possible influences on spirituality (e.g., some relevant personality dispositions, parenting styles, peer influences, stressful life events, etc.) and possibly employ other research designs.

References

- Ainsworth, M. D. S. (1985). Attachments across the Life Span. *Bulletin of the New York Academy of Medicine*, 61(9), 792–812.
- Ainsworth, M. D. S. & Bell, S. M. (1970). Attachment, Exploration, and Separation: Illustrated by the Behavior of One-Year-Olds in a Strange Situation. *Child Development*, 41, 49–67.
- Armsden, G. C. & Greenberg, M. T. (1987). The Inventory of Parent and Peer Attachment: Relationships to Well-Being in Adolescence. *Journal of Youth and Adolescence*, 16, 427–454.
- Baron-Cohen, S. (2003). *The Essential Difference: The Truth about the Male and Female Brain*. New York: Basic Books.

- Bartholomew, K. & Horowitz, L. M. (1991). Attachment Styles among Young Adults: A Test of a Four Category Model. *Journal of Personality and Social Psychology*, 61, 226–244.
- Bartz, J. A., Zaki, J., Bolger, N., Hollander, E., Ludwig, N. N., Kolevzon, A. & Ochsner, K. N. (2010). Oxytocin Selectively Improves Empathic Accuracy. *Psychological Science*, 21, 1426–1428.
- Bowlby, J. (1973). *Attachment and Loss. Vol. 2: Separation, Anxiety and Anger*. New York: Basic Books.
- Bowlby, J. (1979). *The Making and Breaking of Affectional Bonds*. London: Tavistock.
- Bowlby, J. (1982). *Attachment and Loss: Vol. 1. Attachment* (2nd ed.). New York: Basic Books.
- Brizendine, L. (2011). *The Male Brain: A Breakthrough Understanding of How Men and Boys Think*. New York: Broadway Books.
- Buber, M. (1970). *I and Thou*. New York: Charles Scribner's Sons.
- Collett, J. L. & Lizardo, O. (2009). A Power-Control Theory of Gender and Religiosity. *Journal for the Scientific of Religion*, 48, 213–231.
- Davis, D. E., Hook, J. N., McAnnally-Linz, R., Choe, E. & Placeres, V. (2017). Humility, Religion, and Spirituality: A Review of the Literature. *Psychology of Religion and Spirituality*, 9, 242–253.
- Davison, S. N. & Jhangri, G. S. (2013). The Relationship Between Spirituality, Psychosocial Adjustment to Illness, and Health-Related Quality of Life in Patients with Advanced Chronic Kidney Disease. *Journal of Pain and Symptom Management*, 45(2), 170–178.
- Doyle, C. & Cicchetti, D. (2017). From the Cradle to the Grave: The Effects of Adverse Caregiving Environments on Attachment and Relationships Throughout the Lifespan. *Clinical Psychology: Science and Practice*, 24, 203–217.
- Edgell, P., Frost, J. & Stewart, E. (2017). From Existential to Social Understandings of Risk: Examining Gender Differences in Nonreligion. *Social Currents*, 4, 556–574.
- Eliade, M. (1961). *The Sacred and the Profane*. New York: Harper & Row.
- Elkins, D. N. (2015). Beyond Religion: Toward a Humanistic Spirituality. In K. J. Schneider, J. F. T. Bugental & J. F. Pierson (eds.), *The Handbook of Humanistic Psychology*, 2nd ed. (pp. 681–692). California: Sage Publications, Inc.
- Elkins, D. N., Hedstrom, L. J., Hughes, L. L., Leaf, J. A. & Saunders, C. (1988). Toward a Humanistic-Phenomenological Spirituality: Definition, Description, and Measurement. *Journal of Humanistic Psychology*, 28, 5–18.
- Fealty, K. M. & Poloma, M. M. (1991). From Sex Differences to Gender Role Beliefs: Exploring Effects on Six Dimensions of Religiosity. *Sex Roles*, 25, 181–193.

-
- Fisher, H. (2009). *Why Him? Why Her?: How to Find and Keep Lasting Love*. New York: Henry Holt & Co.
 - Fisher, H. (2016). *Anatomy of Love: A Natural History of Mating, Marriage, and Why We Stray*. New York: W. W. Norton & Company, Inc.
 - Flores, P. J. (2004). *Addiction as an Attachment Disorder*. Plymouth: Jason Aronson.
 - Freese, J. & Montgomery, J. (2007). The Devil Made Her Do It: Evaluating Risk Preference as an Explanation of Sex Differences in Religiousness. In C. J. Shelley (ed.), *Advances in Group Processes: The Social Psychology of Gender* (pp. 187–230). Oxford: Elsevier.
 - Frielingsdorf, K. (2017). *Mein Lebensglück finden: Mehr selbst leben als gelebt werden*. Würzburg: Echter Verlag GmbH.
 - Gnaulati, E. & Heine, B. J. (1997). Parental Bonding and Religiosity in Young Adulthood. *Psychological Reports*, 81, 1171–1174.
 - Granqvist, P. (2002). Attachment and Religiosity in Adolescence: Cross-Sectional and Longitudinal Evaluations. *Personality and Social Psychology Bulletin*, 28, 260–270.
 - Granqvist, P. & Hagekull, B. (2003). Longitudinal Predictions of Religious Change in Adolescence: Contributions from the Interaction of Attachment and Relationship Status. *Journal of Social and Personal Relationships*, 20, 793–817.
 - Granqvist, P. & Kirkpatrick, L. A. (2008). Attachment and Religious Representations and Behavior. In J. Cassidy & P. R. Shaver (eds.), *Handbook of Attachment: Theory, Research and Clinical Applications*, 2nd ed. (pp. 906–933). New York: Guilford.
 - Hackett, C., Murphy, C. & McClendon, D. (2016). *The Gender Gap in Religion around the World*. Washington, DC: Pew Research Center.
 - Hiebler-Ragger, M., Falthansl-Scheinecker, J., Birnhuber, G., Fink, A. & Unterrainer, H. F. (2016). Facets of Spirituality Diminish the Positive Relationship between Insecure Attachment and Mood Pathology in Young Adults. *PLoS One*, 11, 1–6.
 - Hodapp, B. & Zwingmann, C. (2019). Religiosity/Spirituality and Mental Health: A Meta-analysis of Studies from the German-Speaking Area. *Journal of Religion and Health*, 58, 1970–1998.
 - Hoffmann, J. P. (2019). Risk Preference Theory and Gender Differences in Religiousness: A Replication and Extension. *Journal for the Scientific Study of Religion*, 58, 210–230.
 - Hood, R. W. Jr., Hill, P. C. & Spilka, B. (2009). *The Psychology of Religion: An Empirical Approach*, 4th ed. New York: The Guilford Press.
 - Ivtzan, I., Gardner, H. E., Bernard, I., Sekhon, M., & Hart, R. (2013). Wellbeing through Self-Fulfillment: Examining Developmental Aspects of Self-Actualization. *The Humanistic Psychologist*, 41, 119–132.

- Kaufman, S. B. (2020). *Transcend: The New Science of Self-Actualization*. New York: TarcherPerigee.
- King, D. B. & DeCicco, T. L. (2009). A Viable Model and Self-Report Measure of Spiritual Intelligence. *International Journal of Transpersonal Studies*, 28, 68–85.
- Kirk, K. M., Eaves, L. J. & Martin, N. G. (1999). Self-Transcendence as a Measure of Spirituality in a Sample of Older Australian Twins. *Twin Res*, 2, 81–87.
- Kirkpatrick, L. A. & Shaver, P. R. (1992). An Attachment-Theoretical Approach to Romantic Love and Religious Belief. *Personality and Social Psychology Bulletin*, 18, 266–275.
- Koenig, H. G., McCullough, M. & Larson, D. B. (2000). *Handbook of Religion and Health*. New York: Oxford University Press.
- Kontrimienė, S. (2019). Assessing Spirituality as the Ultimate End: Development and Validation of the Humanistic Spirituality Inventory. *Journal of Humanistic Psychology*, first published online. <https://doi.org/10.1177/0022167819850678>.
- Lawler-Row, K. A. (2010). Forgiveness as a Mediator of the Religiosity-Health Relationship. *Psychology of Religion and Spirituality*, 2, 1–6.
- Lee, M., Nezu, A. M. & Nezu, C. M. (2014). Positive and Negative Religious Coping, Depressive Symptoms, and Quality of Life in People with HIV. *Journal of Behavioral Medicine*, 37(5), 921–930.
- Li, Y., Woodberry, R., Liu, H. & Guo, G. (2020). Why Are Women More Religious than Men? Do Risk Preferences and Genetic Risk Predispositions Explain the Gender Gap? *Journal for the Scientific Study of Religion (JSSR)*, 59, 289–310.
- MacDonald, D. A. (2000). Spirituality: Description, Measurement and Relation to the Five Factor Model of Personality. *Journal of Personality*, 68, 153–197.
- Malik, S., Wells, A. & Wittkowski, A. (2014). Emotion Regulation as a Mediator in the Relationship between Attachment and Depressive Symptomatology: A Systematic Review. *Journal of Affective Disorders*, 172, 428–444.
- Maslow, A. H. (1969). Various Meanings of Transcendence. *Journal of Transpersonal Psychology*, 1(1), 56–66.
- Maslow, A. H. (1976). *Religions, Values, and Peak Experiences*. New York: Penguin.
- Maslow, A. H. (1993). *The Farther Reaches of Human Nature*. New York: Penguin/Arkana.
- Maslow, A. H. (1997). *Motivation and Personality*. London: Pearson.
- Midlarsky, E., Kahana, E. & Belser, A. (2015). Prosocial Behavior in Late Life. In D. Schroeder & W. G. Graziano (eds.), *Oxford Handbook of Prosocial Behavior* (pp. 415–432). New York: Oxford University Press Inc.

-
- Mikulincer, M., Gillath, O., Sapir-Lavid, Y., Yaakobi, E., Arias, K., Tal-Aloni, L. & Bor, G. (2003). Attachment Theory and Concern for Others' Welfare: Evidence That Activation of the Sense of Secure Base Promotes Endorsement of Self-Transcendence Values. *Basic and Applied Social Psychology*, 25, 299–312.
 - Mikulincer, M. & Shaver, P. R. (2004). Security-Based Self-Representations in Adulthood: Contents and Processes. In W. S. Rholes & J. A. Simpson (eds.), *Adult Attachment: Theory, Research, and Clinical Implications* (pp. 159–195). New York: Guilford Press.
 - Miller, A. S. & Hoffmann, J. P. (1995). Risk and Religion: An Explanation of Gender Differences in Religiosity. *Journal for the Scientific Study of Religion*, 34, 63–75.
 - Miller, A. S. & Stark, R. (2002). Gender and Religiousness: Can Socialization Explanations Be Saved? *American Journal of Sociology*, 107, 1399–1423.
 - Otto, R. (1961). *The Idea of the Holy*. New York: Oxford University Press.
 - Otway, L. J. & Carnelley, K. B. (2013). Exploring the Associations between Adult Attachment Security and Self-Actualization and Self-Transcendence. *Self and Identity*, 12, 217–230.
 - Peres, M. F. P., Kamei, H. H., Tobo, P. R. & Lucchetti, G. (2018). Mechanisms Behind Religiosity and Spirituality's Effect on Mental Health, Quality of Life and Well-Being. *Journal of Religion and Health*, 57, 1842–1855.
 - Piedmont, R. L. (1999). Does Spirituality Represent the Sixth Factor of Personality? Spiritual Transcendence and the Five Factor Model. *Journal of Personality*, 67, 985–1013.
 - Reinert, D. F. (2005). Spirituality, Self-Representations, and Attachment to Parents: A Longitudinal Study of Roman Catholic College Seminarians. *Counseling and Values*, 49, 226–238.
 - Reiss, S. & Havercamp, S. M. (2005). Motivation in a Developmental Context: A New Method for Studying Self-Actualization. *Journal of Humanistic Psychology*, 45, 41–53.
 - Rindt-Hoffman, S., Kernes, J. L. & Bui, N. H. (2019). Attachment Style, Spirituality, and Compassionate Love Among Mental Health Professionals. *Journal of Mental Health Counseling*, 41, 112–126.
 - Rogers, C. R. (1959). A Theory of Therapy, Personality, and Interpersonal Relationships as Developed in the Client-Centered Framework. In S. Koch (ed.), *Psychology: A Study of a Science, Formulations of the Person and the Social Context* (pp. 184–256). New York: McGraw-Hill.
 - Rosmarin, D. H., Pargament, K. I. & Koenig, H. G. (2021). Spirituality and Mental Health: Challenges and Opportunities. *Lancet Psychiatry*, 8, 92–93.

-
- Roth, L. M. & Kroll, J. C. (2007). Risky Business: Assessing Risk Preference Explanations for Gender Differences in Religiosity. *American Sociological Review*, 72, 205–220.
 - Rousseau, D. (2014). A Systems Model of Spirituality. *Journal of Religion & Science*, 49, 476–508.
 - Sim, T. N. & Loh, B. S. M. (2003). Attachment to God: Measurement and Dynamics. *Journal of Social and Personal Relationships*, 20, 373–389.
 - Stark, R. (2002). Physiology and Faith: Addressing the “Universal” Gender Difference in Religious Commitment. *Journal for the Scientific of Religion*, 41, 495–507.
 - Stoker, W. (2011). Culture and Transcendence: A Typology. *Currents of Encounter*, 42, 5–28.
 - Sullins, D. P. (2006). Gender and Religiousness: Deconstructing Universality, Constructing Complexity. *American Journal of Sociology*, 112, 838–880.
 - Trzebiatowska, M. & Bruce, S. (2012). *Why Are Women More Religious than Men?* Oxford, UK: Oxford University Press.
 - Vaillant, G. (1995). *Adaptation to Life*. London: Harvard University Press.
 - Westphal, M. (2004). *Transcendence and Self-Transcendence: On God and the Soul*. Bloomington: Indiana University Press.
 - World Health Organization (1998). *WHOQOL and Spirituality, Religiousness and Personal Beliefs (SRPB)*. Switzerland: World Health Organization.
 - Zajonc, A. (2016). Contemplation in Education. In K. A. Schonert-Reichl & R. W. Roeser (eds.), *The Handbook of Mindfulness in Education* (pp. 17–28). New York: Springer-Verlag.