Do Attachment Styles Affect the Presence and Search for Meaning in Life?

E. Bodner · Y. S. Bergman · S. Cohen-Fridel

Abstract The current work examines the connection between attachment theory and meaning in life (MIL) across adulthood, by inspecting attachment style differences on two dimensions of MIL: presence of meaning (PML) and search for meaning (SML). MIL and attachment measures were collected from 992 participants of three age-groups, young adults (21–30), established adults (31–49), and older adults (50–65). Multivariate analyses demonstrated that older adults scored higher on PML, while younger adults reported more SML. In general, securely attached individuals demonstrated more PML and less SML than participants with insecure attachment styles, and individuals with a fearful attachment style displayed more SML than other attachment styles. Age interacted with attachment, as dismissive young adults displayed less SML, and gender differences were revealed in PML among established adults with regard to the preoccupied and fearful attachment styles. Finally, a three-way interaction of attachment × age × gender was found for PML, as in the established adults, both preoccupied men and fearful women reported a decline in PML, while older women with secure attachment reported higher levels of PML. While in accordance with the developing literature in the field of positive psychology, the current findings shed light on the manner by which the connections between attachment styles, age and gender are associated with the presence and the search for MIL.

Keywords Age differences · Attachment · Gender · Life-cycle · Meaning in life

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1 Introduction

In recent years, there has been a growing recognition regarding the importance of the presence of and the search for meaning in life (MIL) and their connections with personal well-being, personality traits, and life satisfaction (e.g., Kashdan and Steger 2007; Ryff 1989; Steger et al. 2009). However, no direct attempt has been made to examine MIL within the context of attachment theory (Bowlby 1969, 1973), which is closely linked with the way people perceive their surroundings, and quite possibly, their sense of MIL (see Shaver and Mikulincer 2012). Moreover, since maintaining and searching for MIL is a life-long challenge (Steger et al. 2009), it seems important to examine the connection between attachment and MIL along different stages in the life-cycle. Accordingly, the present work aims at exploring the two dimensions of presence of MIL (PML) and the search for meaning (SML) in various life phases within the framework of attachment theory (Bowlby 1973, 1980).

1.1 Meaning in Life

MIL is considered an important pillar by both humanist (Maslow 1968) and existentialist (Frankl 1959; Yalom 1980) theoreticians, and was found to influence well-being throughout life (e.g., Steger et al. 2009). Operational definitions of MIL vary from those viewing it as the recognition of order, coherence, and purpose in one's life accompanied by a sense of fulfillment (Battista and Almond 1973; Reker and Wong 1988; Ryff and Singer 1998) to definitions which attempt to emphasize its multidimensional nature (O'Connor and Chamberlain 1996; Reker 1997).

Michael Steger (e.g., Steger et al. 2006, 2008, 2009) pioneered a novel operational view of MIL, and identified two independent and complimentary dimensions within this concept: the PML and the search for it (SML). PML refers to "the extent to which people comprehend, make sense of, or see significance in their lives, accompanied by the degree to which they perceive themselves to have a purpose, mission, or over-arching aim in life" (Steger et al. 2009, p. 43). PML is associated with positive aspects in one's life, such as less depression, higher self-esteem, and positive affect (Steger et al. 2009). In contrast, SML concerns the extent to which people are trying to gain more understanding of the meaning and the purpose of their lives (Steger et al. 2008), and is generally connected with negative emotions, depression, and neuroticism (Steger et al. 2006).

Differences in PML and SML across the life cycle were studied by Steger et al. (2009), who found two distinct patterns which delineate PML and SML variations throughout life. In line with previous investigations on measures related to MIL (e.g., Meier and Edwards 1974; Reker 2005; Reker et al. 1987; Van Ranst and Marcoen 1997), PML scores were found to be higher in later life stages.It may very well be that these results can be understood through life span theories (e.g., Wong 2000) which emphasize that finding meaning in various aspects of one's life (e.g., in emotionally meaningful goals, see Carstensen et al. 2011) becomes an important resource as the individual grows old. However, while older adults demonstrated higher PML, they showed lower SML in comparison to younger adults. The higher SML among younger adults was attributed to their active exploration of issues such as personal identity, career and social roles (Arnett 2000; Erikson 1968; Marcia 1966). In this regard, both PML and SML were found to be associated with many aspects of personal well-being and satisfaction with life as age increases (e.g., Steger et al. 2009).

MIL is also strongly connected with individual characteristics and personal qualities. For example, Steger et al. (2008) found that when examined in accordance with the Big Five personality traits, PML was associated with increased conscientiousness, agreeableness, and extraversion, and with lower levels of neuroticism. Conversely, SML was associated with higher levels of neuroticism and openness to new experiences (see also Kashdan and Steger 2007).

As people of all ages see their loved and valued individuals as an important source of MIL (i.e., relations with family members, with neighbors or friends; see, Brown et al. 2005; Hicks and King 2009; Krause 2004, 2007; Reker 2000), it can be assumed that positive/negative experiences with significant loved ones throughout our lives should bear importance when we attempt to provide meaning to our existence. This assumption is based on several theoretical efforts to explain the link between attachment and MIL (Antonovsky 1987; Marris 1996; Uren and Wastell 2002), and will be further elaborated later. Accordingly, we attempted to examine MIL through the prism of attachment theory. As will be demonstrated, attachment theory provides a well-based theoretical account of the manner by which we perceive ourselves and our significant others in close relationships. Therefore, it may contribute to our understanding of the underlying mechanisms of MIL which are associated with internal working models in intimate relationships. These working models which may be triggered by threats to the individual's sense of meaning (e.g., life crises such as serious injury or illness, unemployment, immigration, etc.) can be expressed as a continuous search for solace and support from supportive attachment figures. In a similar vein, problems in relations with significant others (e.g., interpersonal crises, such as the death of a close friend, divorce, etc.) may instigate a reevaluation of one's PML and a quest for a new meaning (Shaver and Mikulincer 2012). In sum, the search for MIL may be triggered by attachment insecurities, but also affect one's relations with significant others.

1.2 Attachment Theory

In this section we will first present the main postulates of the attachment theory (Bowlby 1973), and then describe several studies that provide an empirical evidence for these arguments. The main contention of attachment theory is that each individual possesses an intrinsic behavioral system which aims at seeking proximity to caring and supportive others ("attachment figures") when feeling threatened (Bowlby 1980). Another postulate is that the experiences people share with their attachment figures form an internal prism through which close relationships are experienced during all periods of life (Bowlby 1969, 1973; see also Bretherton and Munholland 2008; Hazan and Shaver 1994; Mikulincer and Shaver 2007). Another basic assumption of attachment theory (Bowlby 1980) is that the extent by which an attachment figure is caring, sensitive and responsive to the proximity-seeking need of the individual contributes to the creation of a sense of attachment security. Attachment security facilitates the internal stance that the world is generally a safe place, and that one can rely on the attachment figure to be available when needed (Bretherton 1985; Sroufe and Waters 1977).

Following these theoretical arguments, Bartholomew and Horowitz (1991) suggested a typology of four styles of attachment, i.e., secure, preoccupied, dismissive and fearful, which are derived from the manner by which individuals create a model of themselves and of others. According to this typology, individuals who view themselves and others positively are defined as secure; people who perceive themselves negatively, but hold positive views of others, are referred to as "preoccupied"; individuals who perceive themselves

positively, but see others in a negative manner, are described as "dismissive"; and people who perceive both themselves and others negatively are termed "fearful".

Subsequently, Brennan et al. (1998) developed a questionnaire, termed The Experiences in Close Relationships Scale (ECR), which measures two factors from which the four attachment styles can be derived: (1) Attachment-related avoidance, which reflects preference for interpersonal distance, discomfort with emotional closeness and interpersonal dependence, extreme self-reliance, and low emotionality; (2) Attachment-related anxiety, which is related to intense concerns about partner availability and responsiveness, a strong desire for closeness and safety, and worries about one's value to a partner. Consequent studies which used the ECR, among other scales, demonstrated that in comparison to the other three attachment types, securely attached individuals wish for and pursue intimate and close relationships (Kachadourian et al. 2004), but at the same time are able to maintain their autonomy within such a relationship (Merz and Consedine 2012; Merz et al. 2009). They score higher on measures of active support-seeking behaviors (Carnelley and Rowe 2010; Mikulincer and Shaver 2007), are more likely to show empathy to others (Mikulincer et al. 2001, 2003a, b, c, 2005), and have more positive expectations from others' supportiveness (Beinstein-Miller 2001). Several studies have also shown that secure attachment style is positively correlated with measures of well-being (Merz and Consedine 2012), and negatively with psychopathology and negative affectivity (McWilliams and Bailey 2010).

People with a preoccupied attachment style are characterized by pessimistic views regarding their social relations (Mikulincer et al. 2003a, b, c), and seem as especially sensitive to rejection (Kobak et al. 1993). Additionally, preoccupied people heavily depend on others for providing them with feelings of their own self-worth (Foster et al. 2007), and find it difficult to rely on themselves and comprehend that their existence bears importance and meaning to others (Holtzworth-Munroe et al. 1997). Dismissively attached persons can be considered the least secure of the four attachment styles (Mikulincer and Shaver 2007). This group demonstrates emotional stoicism, and reports low levels of perceived social support (Collins and Feeney 2000; Kobak and Sceery 1988), as dismissive individuals find it difficult to trust others (Consedine and Magai 2003). They shy away from closeness and intimacy (Guerrero 1996), and rely on themselves for providing their emotional needs, while reacting defensively to external displays of emotions (Laan et al. 2012). Fearful individuals have low self-confidence and view others as unreliable and rejecting (Cyranowski et al. 2002). They are more susceptible to destructive relationships (Reis and Grenyer 2004), are extremely closed and rigid (Mallinckrodt et al. 1995), and have the poorest mental health (Reis and Grenyer 2004). Taking into account findings pertaining to this attachment style, Mikulincer and Shaver (2007, p. 43) conclude that for a fearful person, "life is especially difficult".

1.3 Attachment Theory and Meaning in Life

As previously stated, according to the best of our knowledge, no studies have examined the direct link between attachment theory and Steger's concepts of PML and SML in adulthood. However, several theoretical efforts have been made to link the qualities of attachment relationships to providing individuals with a sense of meaning. For example, Marris (1996) contended that the creation of a worldview and the ascription of meaning to events is not rationally based on the values of society, but is actually derived by our internal representations of attachment. According to Marris (1996), this association between attachment and sense of meaning is clearly reflected in language: "Whenever men and women are inspired to find a great personal meaning in generalized, abstract ideals of patriotism or revolutionary struggle, religious duty or dedication to the community, they

characteristically personify the relationship in the language of attachments" (p. 52). In a similar vein, Antonovsky (1987) related to the link between meaningfulness and the development of attachment security in infancy, and argued that caregivers' positive responses to attachment cues create a sense of meaning in children. According to Uren and Wastell (2002), Antonovsky's view implies that attachment internal models act as first-order models that predict the second-order models, through which the child will construct his/her worldview as comprehensive, manageable and meaningful.

In addition to these theoretical efforts, research has provided some evidence for the association between Bowlby's theory and the concept of MIL. For example, a correlation between both parental and peer attachment with a sense of purpose in life was found among Italian adolescents (Baiocco et al. 2009). Moreover, the importance of interpersonal relationships has been demonstrated in connection to well-being (e.g., Ryff 1991, 1995), and Emmons (2003) specified that a desire for close and reciprocal relationships is one of the life-goals which enhance well-being and personal meaning. Additionally, the connection between the self and others has proved important for gaining a sense of worth and a reason for living (Dyson et al. 1997), and social exclusion and ostracism have been connected with reduced feelings of meaning and purpose in life (Stillman et al. 2009).

When considering possible links between attachment theory and MIL, Shaver and Mikulincer (2012) postulate that from an attachment perspective, threats and concerns about meaning should trigger a search for comfort and reassurance from the attachment figure. Thus, the ability to seek and obtain emotional support from others should be strongly connected to a solid sense of life's value and meaning. In contrast, attachment insecurity may render a person susceptible to threats of meaninglessness. In other words, the theoretical rationale for the suggested link between attachment and MIL is that the availability of a supportive, caring and loving attachment figure should assist the individual in maintaining a solid sense of MIL, while attachment insecurity may render him vulnerable to feelings of meaninglessness, and may subsequently induce him to actively engage in a SML (see Shaver and Mikulincer 2012).

In this regard, it has been suggested that emotional closeness and intimate relationships are important for overcoming loneliness and isolation. For example, Case and Williams (2004) argue that being ostracized may evoke thoughts about how others would react if the ostracized individual was, in fact, dead. This perception of invisibility and lack of ability to find solace with close ones is extremely unpleasant (Williams 2012), and disconnection with others was found to be related to loss of meaning (Cacioppo and Patrick 2008). Moreover, Shaver and Mikulincer (2012) report that when students were divided into two groups and asked to write essays about either the meaning or the lack of MIL, those who were in the low-meaning condition reported a stronger desire for romantic intimacy, which is the main motivational proof of attachment-system activation. In this regard, studies have also shown that perceived closeness and support from family members enhance a sense of meaning (Lambert et al. 2010), whereas experimental priming of rejection, exclusion, and loneliness (which are related to attachment insecurity) reduce the feeling that life bears meaning (e.g., Hicks et al. 2010; Stillman et al. 2009). It was also theorized that being able to find emotional support in interpersonal relationships may serve as a shield against the terror of dying and death, which may be considered the ultimate threat to our existential sense of meaning (Mikulincer et al. 2003a, b, c).

The link between attachment theory and MIL may also be found in the writings of Martin Buber (see Stewart 2011). Buber raised the idea that true meaning in our lives is found through relationships with others. In this regard, Buber made the distinction between the I–it and the I–Thou relationships. The I–it views the other person in an impersonal way,

as an object to be used or experienced that is separate from self, whereas the I–Thou refrains from such categorization. In contrast, the I–Thou stance drops the barriers between two people, creates a new space for the full being of each person, and allows for a deeper and a fuller meaning of life.

In line with these ideas, research has revealed that securely attached people (i.e., individuals capable of pursuing and maintaining intimate and close relationships, see Kachadourian et al. 2004), are more satisfied with life and report increased levels of personal well-being in comparison to insecure individuals (e.g., Lavy and Littman-Ovadia 2011; Mikulincer and Shaver 2005; Shiota et al. 2006; Wei et al. 2011). In Buber's terms, it can therefore be said that securely attached persons are more satisfied with life because they allow an I–Thou encounter, whereas insecure individuals, such as fearfully and dismissively attached individuals, report lower scores of well-being, because they refer to the other person as an object to be used (to lean on or to keep away from).

Accordingly, and in light of the link between subjective well-being and MIL (e.g., King et al. 2006; Steger and Frazier 2005; Steger et al. 2008), it seems important to examine the direct effects of the abovementioned attachment styles on MIL. While we can assume differences between secure and insecure individuals when examining MIL, it may be beneficial to examine the aforementioned four attachment styles with regard to PML and SML, as all four types hold a different inner model of the availability of the attachment figure. First, it is reasonable to predict that since secure individuals make the most of intimate and close relationships, and hold a positive view of their interpersonal relationships, they should also score higher on PML when compared to individuals with other attachment styles. However, an important distinction needs to be addressed. As previously stated, dismissive individuals hold themselves in high regard, while creating a negative view of others and distancing themselves from their own emotional needs (Bartholomew and Horowitz 1991). Thus, it could be argued that they might demonstrate high levels of PML, due to their defensive efforts to maintain self-esteem and positive views of themselves (Mikulincer and Shaver 2007). However, even if this is true, it seems implausible that dismissive individuals' reports of PML will be comparable to that of secure individuals. This is mainly due to the finding that dismissive attachment has been closely linked to feelings of loneliness, social withdrawal, and lack of closeness (see review by Mikulincer and Shaver 2007), which reduce the sense that one's life has meaning (Hicks et al. 2010; Shaver and Mikulincer 2012; Stillman et al. 2009). While inflated and defensive self-esteem may counteract some of these negative experiences, this cannot suffice for providing them with a strong sense of meaning, which can be compared to that of secure individuals. Thus, while PML in dismissive individuals may be higher than that of fearful/preoccupied persons, we believe it will still be lower than that of secure individuals.

Due to the moderate inverse correlation between PML and SML (Steger et al. 2006), we can assume that secure individuals will report less SML than those with insecure attachment styles. Once again, however, one needs to consider the importance of individuals' perceptions of the self and the others, and the inner feelings of rejection and loneliness which are experienced when the attachment figure is perceived to be unavailable. While dismissive, preoccupied, and secure individuals hold positive models of themselves, others, or both, respectively, fearfully attached people hold *negative* views of both. In fact, while they fear and shy away from closeness and reliance on others, they, unlike dismissive individuals, experience anxiety and wish they could feel differently (Mikulincer and Shaver 2007). Thus, we can assume that the ambivalence deriving from the relative emptiness and fear of closeness on the one hand, and the desire to fill this gap on the other hand, will lead fearful individuals to an enhanced higher levels of SML in comparison to other insecure attachment styles.

Bowlby ([1969], p. 208) argued that attachment plays a vital role "in the life of man from cradle to the grave". He also claimed ([1969]) that although the attachment system is formed by early interactions with primary caregivers during childhood, it can also be influenced by individual experiences over the entire life span. The attachment needs, as well as the purposes served by the attachment figures, vary as we age (Cicirelli [2010]; Consedine and Magai [2006]; Magai [2008]). This claim is enhanced by the socioemotional selectivity theory (SST; Carstensen et al. [1999], [2000], [2011]). According to SST, as people enter their sixth decade of their lives, they change their priorities regarding their emotional goals, are less eager to conquer more possessions, and choose to invest in meaningful activities and in meaningful interpersonal relations. In line with this theory, PML was found to be associated with many positive aspects of life perceptions among older adults, such as emotional well-being, purpose in life, morale, happiness, autonomy, meaningful relationship, and satisfaction with life (e.g., Baird et al. [2010]; Carstensen et al. [1999]; Ryff [1989]; Singer [2004]; Steger et al. [2009]). In contrast to younger adults who emphasize social popularity and personal power, older adults are more inclined to find meaning from sources such as their close significant others (Carstensen et al. [2011]), or religion and spiritual beliefs (Golsworthy and Coyle [1999]). Thus, while attachment styles are important throughout the life cycle, it is possible that differences in PML scores will be apparent between securely and insecurely attached young individuals, but may not remain among older adults, who are able to find sources of meaning even if they are insecurely attached. Moreover, since SML scores decrease with age (Steger et al. [2009]), it is also possible that while lower SML scores will be evident among dismissively attached individuals in younger adults, these differences will not persist among older adults, because on the whole, the latter have higher presence of meaning and are less engaged in searching for meaning. In other words, we expect age and attachment to interact when examining these variables in connection with both PML and SML.

In this regard, it may also be important to take into account gender differences in creating a sense of meaning in one's life. Various research demonstrated that women tend to report more negative emotions than men and to score lower on subjective health, an aspect of life satisfaction (Tesch-Römer et al. [2008]), and that such gender differences vary across age (Shmotkin [1990]). However, studies aimed at examining PML and SML have yielded no gender differences in either factor (Steger et al. [2006], [2009]). Nevertheless, as perceptions of one's self in close relationships are strongly subjected to his/her view of the gender role and social norms pertaining to this role, insecure women may find it more difficult to maintain a positive view of their spouse (Feeney [2002]). Moreover, Mikulincer and Shaver ([2007]) reviewed over 40 empirical studies examining the connection between attachment insecurity and marital dissatisfaction, and found that while all styles of attachment insecurity are related to marital dissatisfaction in women, this effect was found only among dismissive men. In light of these findings, together with the surmised connection between the ability to seek comfort from close relationships and creating a sense of meaning, we suggest that holding a strong sense of MIL under such perceived threats to the relationship may become impossible. Thus, we hypothesize that an interaction between attachment style and gender will be found with regard to PML, as insecure women will display less PML than secure women.

1.4 The Current Study

The purpose of the present study was to attempt and define the relationship between attachment patterns and the two dimensions of MIL along three periods of adult life. In line with the literature review, we hypothesized that: (1) While secure and dismissive

individuals will report higher PML than preoccupied and fearful individuals, dismissive subjects will score lower than secure ones; (2) While secure individual will report lower scores of SML, fearful individuals will score higher on SML than individuals with other attachment styles; (3) An interaction of attachment × age-group will be found, as young adults with secure and dismissive attachment styles will report higher PML and lower SML scores, respectively; (4) An interaction of attachment × gender will be discovered for PML, as insecure women will display less PML than secure ones.

2 Methods

2.1 Participants

Our cohort consisted of 992 participants, who ranged in age from 21 to 65 ($M = 38.21$, $SD = 11.64$), and comprised of 635 women (64.0 %) and 357 men (36.0 %). In order to examine the hypothesized age differences, the cohort was divided into three age-groups: Young adults, aged 21–30 ($N = 365$; $M = 26.76$, $SD = 2.10$); established adults, aged 31–49 ($N = 399$; $M = 38.72$, $SD = 5.54$); and older adults, aged 50–65 ($N = 228$; $M = 55.65$, $SD = 3.72$). This division was based on certain milestones. The minimum value for young adults was 21, the average age of army discharge in Israel, where the study was conducted, and which is analogous to college graduation in Western societies. The first milestone was age 30, the average age for the birth of one's first child (Eurostat 2012). The second was age 50, as other important familial changes occur around this age, such as children leaving home for college, or the death of a parent (see Umberson 1995). Age 65, which is the standard age of retirement in Israel, was chosen as the third milestone and the upper age limit for the cohort.

Most of the participants ($N = 610$, 61.3 %) were secular, and the rest ($N = 382$, 38.7 %) described themselves as religious. Around half of the participants (45.0 %) reported below-average income, and the rest reported average (26.6 %) or above-average (28.5 %) income. All were high-school graduates, and most (75.0 %) reported that they were in a relationship with a significant other. All participants were actively recruited in various venues (e.g., university campuses and malls) by research assistants and students, who entered classrooms, posted messages on public bulletin boards, and canvassed passers-by of all ages, requesting them to take part in the study and to complete the questionnaire. All participants received no compensation for their efforts.

2.2 Measures and Procedure

MIL was examined by *the MIL Questionnaire* (MLQ; Steger et al. 2006). This questionnaire includes two subscales (five items each): PML, which indicates the extent to which the respondents feel that their lives are meaningful at the present time (e.g., "I have a good sense of what makes my life meaningful"), and SML, which measures the extent to which people are actively seeking meaning in their lives (e.g., "I am seeking a purpose or mission for my life"). Respondents rate the items on a scale ranging from 1 (*absolutely untrue*) to 7 (*absolutely true*), and means for PML and SML were calculated for each participant. Cronbach's αs were high for both PML (.78) and SML (.87).

Attachment patterns were assessed by the *ECR Scale* (Brennan et al. 1998). Participants rate the extent to which each of the 36 items (18 items for both attachment anxiety and attachment avoidance) describes their feelings about close relationships on a 7-point Likert

scale ranging from 1 (*not at all*) to 7 (*very much*). Subsequently, in accordance with the method suggested by Brennan et al. (see also Dieperink et al. 2001; Niedenthal et al. 2002), scores of attachment-related anxiety and attachment-related avoidance were calculated for each participant. Then, participants were assigned to one of the four attachment orientations based on equations involving the classification coefficients (Fisher's linear discriminant functions). The four attachment groups are secure (individuals with low scores of both anxiety and avoidance; $N = 286$), fearful (individuals with high scores of both anxiety and avoidance; $N = 274$), preoccupied (individuals with high scores of anxiety and low scores of avoidance; $N = 115$), and dismissive (individuals with low scores of anxiety and high scores of avoidance; $N = 317$). The reliability of the ECR has been repeatedly demonstrated (see Mikulincer and Shaver 2007), and Cronbach's αs were .87 for anxiety and .81 for avoidance.

In addition to the aforementioned scales, which were all counterbalanced, participants also provided basic demographic information such as gender, age, socioeconomic status, years of formal education, relationship status and religiosity.

3 Results

Due to the differences in religiosity within the cohort, we conducted preliminary analyses identical to those reported herein, but with religiosity (secular/religious) as a covariate. After testing and seeing that religiosity as a covariate did not alter the significant or insignificant differences within the independent variables regarding both PML and SML, it was omitted from subsequent analyses.

In order to examine the hypotheses, we conducted a multivariate analysis of variance (MANOVA). The dependent variables were PML and SML, and the independent variables were attachment style (secure/fearful/preoccupied/dismissive), age-group (young adults/ established adults/older adults), and gender (see Tables 1 and 2 for means and standard deviations of PML and SML, respectively).

The MANOVA yielded a main effect of attachment, $F(6, 1,932) = 11.71$, $p < .001$, $\eta^2 = .04$. Univariate analyses found that this effect was significant for both PML, $F(3, 991) = 11.59$, $p < .001$, $\eta^2 = .03$, and SML, $F(3, 991) = 12.75$, $p < .001$, $\eta^2 = .04$. Pairwise comparisons revealed that in line with our first hypothesis, securely attached individuals reported significantly higher PML than all three other attachment styles, and dismissive individuals reported higher PML in comparison to preoccupied and fearful individuals.

With regard to SML, in line with our second hypothesis, individuals with a fearful attachment style reported significantly higher levels of SML than both secure and dismissive individuals. However, their SML scores did not differ from those of individuals with a preoccupied attachment style. Additionally, participants with preoccupied attachment styles demonstrated increased SML than those with dismissive attachment styles.

An additional main effect of age was also found, $F(4, 1,932) = 8.65$, $p < .001$, $\eta^2 = .02$. Here too, univariate analyses discovered significance for both PML, $F(2, 992) = 9.11$, $p < .001$, $\eta^2 = .02$, and SML, $F(2, 992) = 9.03$, $p < .001$, $\eta^2 = .02$. Pairwise comparisons revealed that older adults reported higher PML than both young and established adults. Additionally, young adults reported higher SML than the other two age-groups.

In line with our third hypothesis, an interaction of attachment × age-group was significant, $F(12, 1,932) = 1.79$, $p < .05$, $\eta^2 = .01$. Univariate analyses found that this effect

Table 1 Means and standard deviations of presence of meaning in life (PML) by age-group, gender, and attachment style

	Secure		Fearful		Preoccupied		Dismissive		Total	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Young adults										
Male	5.43	1.13	5.00	1.24	4.73	1.75	5.20	1.26	5.15	1.30
Female	5.33	1.12	5.04	1.10	5.23	.78	5.39	1.00	5.25	1.05
Total	5.36	1.12	5.03	1.15	5.05	1.22	5.30	1.13	5.21	1.15
Established adults										
Male	5.80	.77	5.35	.88	4.17	1.28	5.28	1.07	5.28	1.08
Female	5.80	.85	5.19	.99	5.37	.79	5.68	1.03	5.55	.97
Total	5.80	.83	5.24	.95	4.95	1.13	5.50	1.06	5.45	1.02
Older adults										
Male	5.87	.69	5.17	.89	6.13	.68	5.78	1.14	5.58	.99
Female	6.34	1.91	5.52	.89	4.95	1.47	5.50	1.10	5.72	1.43
Total	6.24	1.73	5.37	.90	5.43	1.33	5.59	1.12	5.68	1.30
Total										
Male	5.63	.96	5.18	1.02	4.72	1.57	5.36	1.16	5.29	1.16
Female	5.73	1.31	5.21	1.02	5.25	.89	5.55	1.05	5.48	1.14
Total	5.70	1.22	5.20	1.02	5.06	1.20	5.47	1.10	5.41	1.15

Table 2 Means and standard deviations of search of meaning in life (SML) by age-group, gender, and attachment style

	Secure		Fearful		Preoccupied		Dismissive		Total	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Young adults										
Male	5.03	1.35	5.35	1.25	5.05	.75	4.09	1.52	4.82	1.40
Female	4.95	1.46	5.06	1.15	5.39	1.13	4.47	1.65	4.95	1.40
Total	4.98	1.42	5.16	1.19	5.27	1.02	4.29	1.59	4.90	1.40
Established adults										
Male	4.30	1.53	4.67	1.33	5.41	.83	4.30	1.60	4.52	1.48
Female	4.34	1.53	4.73	1.29	4.99	1.33	4.19	1.58	4.48	1.48
Total	4.33	1.53	4.70	1.30	5.13	1.19	4.24	1.59	4.49	1.48
Older adults										
Male	3.48	1.96	4.42	1.22	3.20	1.40	3.48	1.75	3.82	1.61
Female	4.45	1.61	5.33	1.07	5.35	.86	4.85	1.35	4.88	1.38
Total	4.23	1.73	4.92	1.22	4.49	1.52	4.42	1.60	4.52	1.54
Total										
Male	4.53	1.61	4.83	1.32	4.92	1.14	4.06	1.62	4.49	1.52
Female	4.60	1.54	4.98	1.21	5.22	1.19	4.48	1.54	4.74	1.44
Total	4.58	1.56	4.92	1.25	5.11	1.17	4.30	1.59	4.65	1.48

was significant for SML, $F(6, 988) = 2.38$, $p < .05$, $\eta^2 = .02$. Simple main effect tests demonstrated that in the young adult group (ages 21–30), people with dismissive attachment pattern reported significantly less SML than all other three attachment types. In the established adults group (31–49), dismissive individuals report less SML than those with a preoccupied attachment style. Attachment patterns, however, did not affect SML for the older adult group (50–65).

While our fourth hypothesis regarding the interaction of attachment × gender was not confirmed, a three-way interaction of attachment × age-group × gender was found for PML, $F(6, 988) = 3.32$, $p < .01$, $\eta^2 = .02$. Further analyses revealed three effects, one for men and two for women (see Figs. 1 and 2 for means of PML for men and women, respectively).

As can be seen in Fig. 1, men in the established adult group who report a preoccupied attachment style ($M = 4.17$, $SD = 1.28$), have significantly lower PML scores than those of secure ($M = 5.80$, $SD = .77$), fearful ($M = 5.35$, $SD = .88$), and dismissive ($M = 5.28$, $SD = 1.08$) attachment styles.

Regarding women, Fig. 2 demonstrates two significant differences: first, established adult women who report fearful attachment styles show significantly less PML ($M = 5.19$, $SD = .99$) than those who demonstrate secure ($M = 5.80$, $SD = .85$) and dismissive ($M = 5.68$, $SD = 1.03$) attachment patterns. Second, in the older adult group, women with secure attachment report higher PML ($M = 6.34$, $SD = 1.91$) than that of fearful ($M = 5.52$, $SD = .89$), preoccupied ($M = 4.95$, $SD = 1.47$), and dismissive ($M = 5.50$, $SD = 1.10$) attachment styles.

4 Discussion

The current findings provide a new outlook on the importance of one's perceptions regarding the self and others in the context of close relationships to both the presence and the search for meaning in our lives. John Bowlby believed that attachment processes affect one's life from beginning to end, and the present work emphasizes this claim, as the importance of attachment patterns to MIL is evident in all examined age-groups.
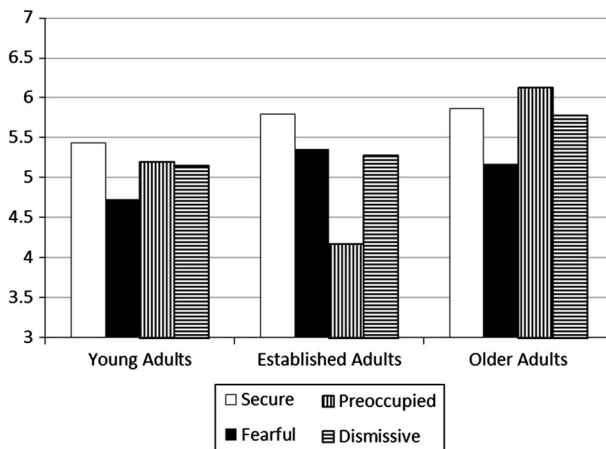
Fig. 1 PML scores in males for different attachment styles along the life cycle
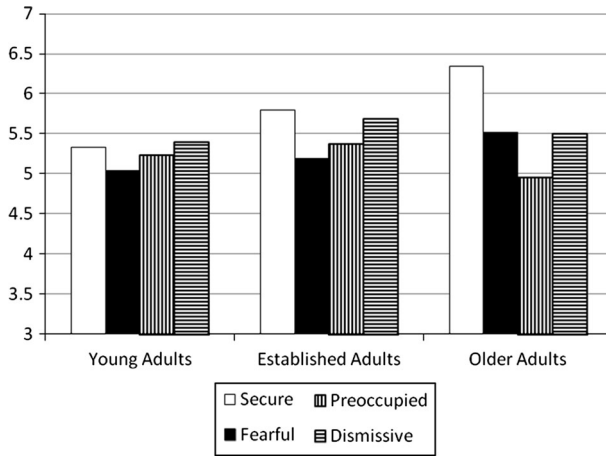
Fig. 2 PML scores in females for different attachment styles along the life cycle

The current study demonstrated that securely attached individuals score higher on PML and lower on SML than insecurely attached individuals. These findings are in line with previous studies that portray secure attachment style as positively correlated with increased mental health and various aspects of well-being (see review by Mikulincer and Shaver 2009; see also Merz and Consedine 2012) which, in turn, are positively correlated with PML, and negatively correlated with SML (Steger et al. 2009). These results are also in accordance with indirect findings, demonstrating the connection between feelings of closeness and a heightened sense of PML (Hicks and King 2009; Shaver and Mikulincer 2012; Steger et al. 2008).

Additionally, and in accordance with the first hypothesis, dismissively attached persons report higher PML than those with preoccupied and fearful attachment styles. As previously stated, dismissive individuals hold a positive view of the self, but a negative model of others (Bartholomew and Horowitz 1991). In line with this contention, Mikulincer and Shaver (2007), upon reviewing over 60 studies pertaining to this issue, concluded that inflated self-regard and self-competence, while characteristic of this attachment style, limits itself to non-social spheres. In other words, while the dismissive individual is generally aware of his shortcomings in social circumstances, he still tends to hold himself in high regard. As enhanced PML has been shown to be associated with positive self-views (Steger et al. 2009), it seems reasonable that dismissive people, while reporting less PML than secure individuals, will still report more presence of meaning than other types of insecurely attached individuals who hold less positive views of the self.

Conversely, and in line with our second hypothesis, individuals with fearful attachment, which is regarded as the least secure of the four attachment styles, demonstrated higher levels of SML, as compared with those with secure and dismissive people. This leads us to examine the relations between attachment styles and SML. While searching for MIL can be seen as a positive motivational factor (Frankl 1959), in the current context, it stems from feelings of personal discomfort or frustration which create a sense of meaninglessness (see Shaver and Mikulincer 2012). In this regard, the search factor of the MLQ seems connected with difficulties in life, and less with a positive and secure SML. Along these lines, Steger et al. (2008) demonstrated a connection between lower levels of self-acceptance and feelings of relatedness and SML. Thus, it is quite clear why fearful individuals, who are

characterized by a high degree of dependence and helplessness on the one hand, and a constant need for external affirmation and acceptance on the other hand (Mikulincer and Shaver 2007), should report increased SML.

When we compared individuals with negative views of the self, fearful individuals' SML did not differ from that of preoccupied individuals. This is line with findings demonstrating that negative self-views are correlated with increased SML (Steger et al. 2006, 2008), and therefore, similarities between the two attachment styles are not surprising. The same can be said for the lack of difference between secure and dismissive styles, which both hold a *positive* view of the self. Nevertheless, it is possible that while secure individuals may report moderate SML levels because they have already acquired a sense of meaning, dismissive people, who are less grounded in their feelings of PML, may be less inclined to seek meaning because they are afraid of changing their life conditions. In contrast, the fearful and preoccupied attachment types are living with a fear that they are not liked by others and are therefore in a constant search for approval and for love (Bartholomew and Horowitz 1991; Mikulincer and Shaver 2007). Hence, the fearful style, followed by the preoccupied style, are characterized by the highest SML scores.

An additional finding was that older adults report more PML than both established and younger adults. These findings are in accordance with previous findings regarding PML (Steger et al. 2009), and with prior investigations on measures related to MIL (e.g., Meier and Edwards 1974; Reker 2005; Reker et al. 1987; Van Ranst and Marcoen 1997). Cross-sectional age comparisons hint that improvements in emotional experience and emotional well-being may continue from early adulthood into old age (Carstensen et al. 2000; Charles et al. 2001; Mroczek and Kolarz 1998; Riediger et al. 2009). There is also evidence for a relatively large increase in satisfaction and happiness from the 40s to the early 70s (Baird et al. 2010), and put together, it is not surprising that older adults would report higher PML when compared to younger age-groups.

In contrast to the higher PML scores among older adults, we found *higher* SML among younger adults in comparison to established and older adults. This finding may be better understood in light of Neugarten's (1976) theory on aging, which suggests the existence of a system of expectations about age-appropriate behaviors that individuals in all societies have to comply with. In line with this idea, it is possible to explain the higher SML among younger adults as stemming from the higher number of social tasks, achievements and accomplishments that younger people have to fulfill, as compared with established and older adults, who may have already accomplished various social roles and duties. This finding is also in accordance with other life cycle theories that describe the process of active exploration of younger individuals, who seek and question their own identity, career and social roles (Arnett 2000; Marcia 1966). Finally, it also complies with Erikson's theory (1968) which describes the striving of younger adults for intimacy as a way to cope with the possibility of isolation.

In fact, by taking Neugarten's (1976) description one step further, and considering Erikson's (1968) depiction of this developmental stage (i.e., intimacy vs. isolation), we can also understand our findings with regard to the interaction of attachment and age for SML, as our third hypothesis stipulates. As previously mentioned, part of this hypothesis was that young adults with dismissive attachment styles will report lower SML scores. Thus, it seems that the main task which stands before young adults is the search for close, intimate, and meaningful relationships. Since these goals are perceived as too threatening for dismissive individuals, it makes sense that they will shy away from any active pursuit of such goals, and subsequently, engage less in attempts to question their lives. Thus, the interaction of age and attachment style for SML can be understood within this frame of thought.

However, the significant difference between dismissive and preoccupied individuals in established adulthood is unclear. It could be that at this point in their lives, secure and fearful individuals are more flexible in their interpretation of their surroundings, the former due to their positive personal attachment resources, and the latter due to the "tug-of-war" between two opposite desires, i.e., fears of rejection and a need to fend for themselves. In contrast, dismissive and preoccupied persons are more rigid in their perceptions of the world surrounding them, and therefore, find it hard to alter their persistent quest, or lack thereof, in search of meaning. However, since this is the first study attempting to explore the connection between attachment style and age on MIL, this interaction, as well as the lack of the hypothesized findings regarding PML, needs to be further investigated.

Our fourth hypothesis, which pertained to the combined effect of insecure attachment and gender on PML, was not confirmed. However, an interesting three-way interaction of attachment × age-group × gender on PML was discovered. Men in the established adult group, who report a preoccupied attachment style, scored lower on PML than established men of all other attachment styles. According to the statistics from the European Union, the mean age upon the birth of one's first child is around 30 (Eurostat 2012). The transition to fatherhood is difficult for all men, who may experience negative physical and emotional symptoms (Yu et al. 2012). This transition can be especially threatening for preoccupied men, who may feel that their main source of comfort and support, their wives, are now less available to provide them with the security they need. This, together with their hyper-sensitivity to rejection (Kobak et al. 1993), may seriously hinder their sense of MIL.

Interestingly, in the same age group, *fearful* women, rather than preoccupied women, demonstrate significantly less PML than women with secure and dismissive attachments. It is possible that while preoccupied men have difficulties in finding meaning in their enlarged family, preoccupied women find some satisfaction and comfort with the maternal bonds created with their small children, and thereby preserve their sense of meaning at this stage of life. In contrast, fearful women, in addition to the negative view they have about themselves, are also extremely sensitive to rejection by others, and may therefore find it difficult to create such bonds, and might not be able to utilize their children as a way to maintain their PML.

Another finding which is related to the three-way interaction is that secure older women had higher PML scores when compared to insecure women. Following the idea of the "empty nest" (Harkins 1978), it is possible that women with positive models of themselves and of others are more capable of coping with their children growing older and leaving home, and are able to expand their lives and find new meaning, beyond their relationship with their children. In conclusion, while our fourth hypothesis was not confirmed, the information provided by this three-way interaction may indicate that both attachment and gender jointly affect PML, but with an added impact of age.

Several limitations arise from the present study. First, MIL has been examined in various aspects (e.g., Crumbaugh and Maholick 1964; Ryff 1989), and while the scale used for this study is well-founded and widely used, it may prove useful to examine the link between attachment and MIL using other measures. For example, employing a narrative measurement of MIL within the context of personal relationships may enable us to explore further how differently attached individuals define and describe their lives in terms of what provides them with essence and meaning. This is also relevant since some of our findings stem from interactions, which may require further examination and replication. Additionally, since the cohort used in the current study is cross-sectional, it may be difficult to speculate about causality or establish the underlying reason for age differences in PML and SML. Employing a longitudinal methodology may resolve these uncertainties. It should

also be noted that the study was conducted in Israel, and more research is needed in order to corroborate our findings in other cultural contexts.

Despite these limitations, our research opens a new pathway into the understanding of both one's feelings of MIL, and the search for such meaning. The present work adds an important aspect by connecting the field of MIL with attachment theory, as it seems that we cannot separate the feeling that our lives are meaningful from our ability to fully and truly share our lives with our loved ones. Thus, it may be said that our ability to seek comfort, confide, and benefit from the fruits of close and intimate relationships can bring us one step closer to feeling a true MIL.

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