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Meaning Making and Psychological Distress in Adolescence and Emerging Adulthood

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Abstract. This study investigated how meaning making is related to psychological distress in adolescents and emerging adults in Sweden. Participants were gymnasium students ($n = 63$, 48 women, 15 men), aged 15-19, and university students ($n = 39$, 33 women, 5 men, 1 other), aged 19-28. Meaning making was coded from turning point narratives. The results indicated that meaning valence, but not sophistication of meaning, was related to psychological distress. Gender differences in sophistication of meaning and meaning valence, and relations between higher sophistication of meaning and more psychological distress in adolescents, were found. The results are discussed in relation to previous research and to the idea that different aspects of meaning making may have different implications for psychological distress.

"My parents divorced when I was 12 years old. It felt like I had to take on a bigger responsibility than before /.../ It was extremely difficult to end up in the middle between mum and dad. They both expected to have me on their side, which I wasn't because I was in between /.../ The divorce has made me a more critical, responsible and conflict avoiding person."

In the quote above, taken from the current study, a young woman describes her parents' divorce, and how that experience has impacted her until this very day. In this personal story she links who she is to the experienced event, making clear meaning of her past. Looking back on past events and their significance for the self, as the quoted young woman does, is a central aspect of identity development (McAdams, 1993, 2011) and this way of making meaning is widely assumed to contribute to psychological functioning (Park, 2010; Greenhot & McLean, 2013). Yet, recent research indicates that all types of meaning making are not the same, and might not lead to positive outcomes (Waters, Shallcross, & Fivush, 2013; Park, 2010; Greenhot & McLean, 2013). This study aimed to further investigate the associations between meaning making and psychological distress.

The present study focus on the relation between meaning making and psychological distress among adolescents and emerging adults in Sweden. Actually, the latest report on mental health among young people in Sweden from The National Board of Health and Welfare (2013) point out a general increase in psychological distress among adolescents and emerging adults since the beginning of the 2000's. About one in five in the ages 16 to 29 report mild or severe symptoms of anxiety or worry. Young women and students seem extra prone to these experiences. According to contemporary developmental theories, psychological health in both adolescence and emerging adulthood is highly dependent on the major psychological task of identity development (McLean & Syed, 2015). Thus, investigating the relationship between psychological

distress and how young people integrate and make meaning from their experiences, a process through which identity develops (McLean & Syed, 2015), could deepen the understanding of psychological distress experienced by adolescents and emerging adults.

Identity development

According to Erikson (1968), a main issue in life is the quest for identity. He described identity development as starting in adolescence. In this age, earlier experiences, roles and identifications are integrated into a unified sense of identity. Once started, identity development is a life-long process. Those experiencing difficulties developing an identity risk *identity confusion* – a feeling of lacking an inner core and of being oneself (Erikson, 1968). There are several reasons why identity development begins in adolescence. First, physiological changes push the adolescent into a "new" body and into having to relate to new sexual impulses (Erikson, 1968). Second, emerging cognitive abilities make complex thinking about the self and identity possible (McLean & Syed, 2015). Third, adolescence usually involves increased demands on making choices and taking on responsibilities (McLean & Syed, 2015). Fourth and lastly, by this time various accumulated experiences need to be integrated into a personal identity (McLean & Syed, 2014). Arnett (2000) argued that, in western modern society, the time when identity development is particularly prominent has extended from adolescence into what he calls emerging adulthood. Emerging adulthood is said to capture the phenomenon that young people generally do not settle into lasting adults roles by the end of adolescence, but that an adult identity is developed gradually from late teens up to late twenties (Arnett, 2000). Consequently this study include both adolescents and emerging adults.

Narrative identity. Identity development is to a great extent a search for self-continuity. To form a sense of identity over time individuals need to find a balance between staying the same and continuing to change (Habermas & Köber, 2015). It has been stated that feelings of self-sameness and continuity is provided by developing a narrative identity, in which individuals integrate experiences into a subjective story about the self (McAdams, 2011, 1993). Narrative identity is suggested to have its origins in the preschool years when children first are able to recount stories from their memories, and when they are able to engage in conversations with parents about personal events (Fivush & Zaman, 2015). Yet, in line with previously mentioned developmental theories, it has been proposed that it is not until adolescence that people have developed the social and cognitive skills needed to construct a coherent, personal story (Habermas & Bluck, 2000). Actually, the construction of narrative identity is assumed to emerge in adolescence and emerging adulthood and continue throughout most of life (McAdams, 2011). The ability to form a narrative identity, and the process by which it is done, is called autobiographical reasoning. Autobiographical reasoning is the way individuals explicitly link different parts of life to each other and to their understanding of themselves, and explain to themselves and others why things happen. This type of reasoning has been argued to serve as a tool by which individuals can maintain an ongoing narrative identity, despite life events that might challenge the sense of self-continuity (Habermas & Köber, 2015). A central part of autobiographical reasoning is

how individuals go beyond details of their life stories to explain what they believe past events say about who they are. This aspect of autobiographical reasoning is often referred to as meaning making.

        Meaning making. Meaning making – how meaning from past events is created and expressed in personal stories – has been approached differently in research depending on how the term has been conceptualized. An aspect of meaning making investigated in recent years is defined as to what extent individuals learn something about themselves, or their lives, from past events (e.g., McLean & Thorne, 2003; McLean & Pratt, 2006; McLean & Breen, 2009). This meaning making construct has been named *sophistication of meaning*, specifically referring to the scale on which it is measured. Another approach considers *self-event connections* (Pasupathi, Mansour, & Brubaker, 2007), how individuals explicitly link past events to aspects of themselves. The tendency to make these links may vary depending on what experience is narrated and how the impact is described. In this study an approach similar to self-event connections is adapted in conjunction with sophistication of meaning, where the type of meaning made (i.e. negative, neutral, positive, or a mix of negative and positive) between event and self is investigated, here named meaning valence.

        Analyses of meaning making have been applied to narratives about many kinds of events, including turning points, self-defining memories and every-day events (Greenhot & McLean, 2013). Turning point events are defined as experiences that mark an important change in in the self (e.g., McAdams, 1993), and have been argued to be well suited for studying identity development since they usually involve self-reflection and new understandings of oneself (McLean & Pratt, 2006). Additionally, they provide a relevant context for investigating meaning making, as the individual is asked to describe changes over time and how past events relate to the current self (McLean & Breen, 2009). Hence, in the present study, the focus is on turning point events.

        Although it has been speculated that the process of meaning making might differ in regard to the kind of event narrated (Greenhot & McLean, 2013), not many studies have compared how (Greenhot & McLean, 2013). Recent studies have compared the different implications for meaning making of negative versus positive events (e.g., Banks & Salmon, 2013; Lilgendahl & McAdams, 2011). As this seemed a promising approach, event valence, that is whether the described event was negative, neutral, positive or a mix of negative and positive, was examined in the turning point narratives of the present study.

Meaning Making in Relation to Psychological Distress

        Meaning making is widely considered to contribute to psychological functioning and adjustment to past events (Greenhot & McLean, 2013; Park, 2010). In the literature concerning relations between meaning making and psychological functioning there is great variation in how psychological functioning is conceptualized and measured (Greenhot & McLean, 2013; Park, 2010; Waters et al., 2013). In some research, the term well-being is used, referring to positive adaptation and attributes such as life satisfaction and self-esteem. In other studies, meaning making is analyzed in relation to psychological

symptoms or emotional distress. The research questions guiding the present study concern the relationship between meaning making and psychological distress. Psychological distress and well-being have been assumed to represent two different poles of psychological functioning (e.g., Greenhot & McLean, 2013). Therefore, in the purpose of comparing results from previous studies, research relating meaning making to well-being was also considered to offer indications of its relation to psychological distress. Specifically, low levels of well-being could be said to correspond to high levels of distress, and vice versa.

Sophistication of meaning has been shown to correlate to psychological functioning in the form of well-being, optimism and reversed scores of depression (Tavernier & Willoughby, 2012; McLean, Breen & Fournier, 2010; McLean & Pratt, 2006). In regard to whether the meaning made is negative, neutral or positive (i.e. meaning valence) it has been noted that most research on meaning making has focused on positive forms of meaning, and has not systematically investigated the different implications on well-being or distress of meaning valence (Greenhot & McLean, 2013). Two exceptions are studies by Banks and Salmon (2013) and Lilgendahl and McAdams (2011). They found that individuals with the strongest tendency to link events to negative aspects of the self, that is negative meaning valence, showed the highest levels of distress (Banks & Salmon, 2013), and that positive meaning valence was related to higher levels of psychological well-being (Lilgendahl & McAdams, 2011).

Although meaning making has been linked to positive psychological functioning (Park, 2010), many studies have indicated the opposite (Park, 2010). The relation between meaning making and psychological functioning has been concluded to be more complex than a "more is better" correlation (Greenhot & McLean, 2013). Recent meta analyses (e.g., Park, 2010) state that positive and negative outcomes of meaning making in terms of psychological functioning depend on multiple factors. More specifically, the level of sophistication of meaning and valence of the meaning might have different implications for experiences of psychological distress (Greenhot & McLean, 2013; Banks & Salmon, 2013). Additionally, the relation between meaning making and psychological distress seems to vary depending on age and gender and might be influenced by valence of the narrated event (Greenhot & McLean, 2013; McLean & Mansfield, 2011; Park, 2010; Pasupathi, 2013).

Meaning making and psychological distress in relation to age and gender. Below follows an overview of the literature concerning meaning making in relation to age and to gender. Then research on how meaning making and psychological distress might relate differently to each other depending on age and gender is presented.

Sophistication of meaning seems related to age. Research on adolescents indicates that sophistication of meaning increases with age, with a marked spurt in middle adolescence, at age 15 to 16 years (McLean, 2008; McLean & Breen, 2009; McLean et al., 2010). This is in line with developmental research suggesting that the social-cognitive abilities needed to integrate past events into an identity, and thus engage in meaning making, begin to evolve in roughly the ages 15 to 18 (Habermas & Bluck, 2000). Meaning making processes has been shown to continue to develop through middle and late adulthood (Pasupathi & Mansour, 2006). Studies regarding sophistication of meaning and gender have found no differences between women and men in levels of

sophistication of meaning made (McLean, 2005; McLean & Breen, 2009; McLean & Pratt, 2006; McLean & Thorne, 2003). An exception is Fivush's, Bohanek's, Zaman's and Grapin's (2012) finding that adolescent girls had a tendency to include higher levels of sophistication of meaning in their narratives than fellow boys.

The implication of age for the relation between sophistication of meaning and psychological distress, has been studied in both children and adolescents. Studies with preadolescents have linked writing about and evaluating events to depressive symptoms (Fivush, Marin, Crawford, Reynolds & Brewin, 2007). It has been suggested that making meaning in this way may not be possible or beneficial for individuals who has not reached certain developmental achievements (McLean & Mansfield, 2011). Studies on adolescents investigating sophistication of meaning in relation to psychological distress support this claim. Indeed, higher levels of sophistication of meaning has in one study (McLean, Breen & Fournier, 2010) been linked to poorer psychological functioning in early adolescence (11-13 years), and in another study (Chen, McAnally, Wang & Reese, 2012) in both early and middle adolescence (11-16 years). However, the mentioned studies indicate that sophistication of meaning might be related to positive psychological functioning for late adolescents (17-21 years) (McLean et al., 2010; Chen et al., 2012). In sum, the literature indicate that sophistication of meaning is associated with more psychological distress for early and middle adolescents (11-16 years), but with less distress for individuals aged 17 and over (McLean & Breen, 2009; Chen et al., 2012; McLean et al., 2010).

Few studies have examined the relation between sophistication of meaning, psychological distress and gender. One study implied that sophistication of meaning might be related to less psychological well-being for boys aged 12 to 21 (Chen et al., 2012). Another study (McLean et al., 2010) showed that meaning making may be related to positive well-being for late- (17-18 years), but not early (11-13 years) adolescent boys. These two studies are contrasted by results from McLean and Breen's study (2009) indicating that sophistication of meaning was related to more well-being for both girls and boys aged 14-18. In conclusion, the literature reveals mixed findings, making this an interesting area for further investigations.

In regard to meaning valence, no age and gender differences have been found among midlife adults (Lilgendahl & McAdams, 2011). Yet, in a study investigating self-growth from negative events, a construct related to meaning valence, women described more self-growth from negative events than men and increased age was associated with less negative self-growth (Lilgendahl, McLean & Mansfield, 2012). Although this was in a adult sample and the meaning making construct was not similar to meaning valence, this could give an indication that women might engage more in positive meaning valence than men, and that negative meaning valence decreases with age.

Meaning making and psychological distress in relation to event valence. It has been hypothesized that making meaning from negative events might be different from making meaning from positive ones (Greenhot & McLean, 2013). However, it is not until recently the implications on psychological distress of making meaning from negative, neutral or positive events has been investigated (e.g., Lilgendahl & McAdams, 2011; Banks & Salmon, 2013). The results indicate that event valence might help deepening the understanding of the relation between meaning making and psychological distress. In the

section below research concerning sophistication of meaning, meaning valence and psychological distress in relation to event valence is presented.

In regard to the relation between sophistication of meaning and event valence it has been indicated that negative events tend to require more reasoning that positive events (e.g., Thorne, McLean & Lawrence, 2004; McLean & Thorne, 2003). Negative events may challenge the sense of self-continuity more than positive events, and therefore evoke more efforts of meaning making (Habermas & Köber, 2015). Consequently, negative event valence might be related to higher levels of sophistication of meaning than positive ones.

The relation between the valence of the narrated event and the valence of the meaning made seems little investigated. It appears that only one study has examined the relation between meaning valence and event valence. It showed a strong overlap between the two constructs (Lilgendahl & McAdams, 2011). That is, negative meaning was often made from negative events and positive meaning from positive events.

The relation between the valence of the event and psychological distress has been paid little attention (Greenhot & McLean, 2013). Meta-analyses over studies where meaning was made from both positive and negative events, but where event valence was not investigated separately, conclude that meaning making might lead to positive psychological functioning independent of the type of event (Park, 2010). Based on these findings one could speculate that event valence has little or none relation to psychological distress. However, in the only study, to my knowledge, where event valence indeed was investigated separately and related to psychological functioning, positive event valence was related to higher levels of psychological well-being (Lilgendahl & McAdams, 2011). To conclude, the relation between event valence and psychological distress seems to lack much research and might be worth investigating further.

The Present Study

The overall purpose of this study was to investigate how meaning making is related to psychological distress among adolescents and emerging adults in Sweden. The following specific questions and hypotheses were addressed in this study:

1. How do meaning making relate to psychological distress? Following the general conclusions in previous research (Greenhot & McLean, 2013; Park, 2010) it was expected that sophistication of meaning would correlate negatively with psychological distress. Negative meaning valence was expected to be associated with higher levels of distress and positive meaning valence was expected to be associated with lower levels of distress (Banks & Salmon, 2012; Lilgendahl & McAdams, 2011).

2. How do meaning making and psychological distress relate to age and gender? Meaning making has been shown to increase with age (McLean, 2008; McLean & Breen, 2009; McLean et al., 2010, Pasupathi & Mansour, 2006), thus it was hypothesized that emerging adults would show higher levels of sophistication of meaning than adolescents. No findings of gender differences in sophistication of meaning were expected (McLean, 2005; McLean & Breen, 2009; McLean & Pratt, 2006; McLean & Thorne, 2003). Following recent statistics (National Board of Health and Welfare, 2013)

women were expected to rate higher levels of distress than men. No hypothesis was made concerning the relation between sophistication of meaning and psychological distress among adolescents since the present adolescent sample consisted of 15-19 years old, an age period where meaning making might be related to both more and less psychological distress (McLean & Breen, 2009; Chen et al., 2012; McLean et al., 2010). For emerging adults, a higher level of sophistication of meaning was expected to relate to less psychological distress (McLean & Breen, 2009; Chen et al., 2012; McLean et al., 2010). Lastly, sophistication of meaning was expected to relate to less psychological distress for women (McLean & Breen, 2009), but due to mixed results (McLean & Breen, 2009; Chen et al., 2012; McLean et al., 2010) no hypothesis was made concerning the relation between sophistication of meaning and psychological distress for men.

3. How do meaning making and psychological distress relate to event valence? Negative event valence was expected to be associated with higher levels of sophistication of meaning than positive event valence (Thorne et al., 2004; McLean & Thorne, 2003; Habermas & Köber, 2015). Based on previous findings (Lilgendahl & McAdams, 2011) event valence and meaning valence were expected to overlap. Findings concerning the relation between event valence and psychological distress are mixed (Park, 2010; Lilgendahl & McAdams, 2011), thus no hypothesis was made in regard to this relation.

Method

Procedure

The present study is part of a pilot study in the GREEN-project (Gothenburg Research on Ethnicity-related Experiences and identity Narratives) at the Department of Psychology at University of Gothenburg. The project is collaboration with the Department of Psychology at the University of Minnesota. The overall purpose of the project is to study ethnicity and identity narratives. The present study used the data collected from gymnasiums and universities in Gothenburg and Malmö, Sweden's second and third largest city, and gymnasiums in Falkenberg (a municipality with about 41000 inhabitants).

Data were collected in the fall of 2014. Teachers at universities and gymnasiums in Gothenburg and Malmö, and at gymnasiums in Falkenberg, were contacted and inquired whether students at their courses could be asked to participate in the study. Graduate students, including myself, visited schools and courses where teachers responded positively. Teachers had before the visit been informed in written form about the project and that participation was voluntary. Students at gymnasiums were offered to fill in the survey online or in pencil and paper form during lecture hour. At universities students were informed during lecture hours about the study and, in some classes, were given time to fill out the questionnaire in paper and pencil form during the lecture. In others classes they were offered to fill in the questionnaire online on their spare time. Students were informed both orally and in written form about the project. It was

explained that participation was voluntary, anonymous and that they were free to end their participation at any time.

The questionnaire was designed by the researchers in the GREEN team. Scales and questions not available in Swedish were translated from English and then back-translated in order to make sure no information was lost in the translation. The questionnaire began with a section of background questions. The present study used only age, study level and gender from this part. Next followed two narrative prompts. The first one asked the participants do describe a time where they thought their story had diverged from what is considered normal, expected or accepted. The next narrative prompts asked for a turning point memory, further described below. The turning point question was randomized to about 50% of the questionnaires; the other 50% received a prompt asking for a time when the participants became aware of their ethnicities. The final section consisted of scales measuring identity distress, discrimination, well-being and psychological distress. The questionnaire took approximately 40 minutes to complete.

Measures

Brief Symptom Inventory - BSI-18. The Brief Symptom Inventory 18 (BSI-18) is a well-established self-report questionnaire designed to measure general psychological distress (Meijer, de Vries & van Bruggen, 2011). The questionnaire consists of 18 items focusing on three symptom dimensions: somatization, depression and anxiety (Meijer et al., 2011). The three subscales were chosen because they represent about 80% of the psychiatric disorders found in primary care practice (Derogatis, 2000). BSI-18 is usually completed in about 4 minutes (Derogatis, 2000).

BSI-18 asks the informants to rate their level of distress during the past week for each item on a 5-point Likert-type scale ranging from 0 (Not at all) to 4 (Extremely). This study used a Swedish version of the BSI-18. Because of ethical concerns, item number 17 (Suicidal thoughts) was left out. The scale can be interpreted on three different levels: the global level (called GSI - General Severity Index), the dimension level and the symptom, or item, level (Derogatis, 2000). In the present study the GSI and the dimension levels of BSI-18 were analyzed.

Internal consistency for the three symptom dimensions of BSI-18 and GSI has been reported to be good (Derogatis, 2000) (GSI = .89, Depression = .84, Anxiety = .79, Somatization = .74). Alpha coefficients for the present study's sample ranged from acceptable to good (GSI = .88, Depression = .87, Anxiety = .73, Somatization = .66).

Turning point memory. A translated version of McAdams' (2008) turning point memory prompt was used. Participants were asked to write about a key moment in their lives that marked a transition or change in their understanding of themselves. If such a memory could not be found the participants were asked to describe an event that changed them in some way. In three follow-up questions to the main question the participants were asked what they did to resolve or handle the described event, how they felt during the event and if the event affected how they view themselves.

Participants

Participants were adolescents studying at the Gymnasium level in the area of Gothenburg and Falkenberg, and emerging adults studying at Gothenburg University and Malmö University. The total number of participants who met the inclusion criteria for the present study were 102 (inclusion criteria described below). In the questionnaire used in the present study participants were asked to self-define gender and the sample was then divided into gender groups. Based on both study level and age, two age groups were formed: Adolescents at Gymnasium, 15-19 years, and Emerging adults at University, 19-28 years. Ages in the sample ranged from 15 to 28 years (M_{age} = 19.21, SD = 3.41), and there were 81 women and 20 men. One person identified as another gender. This participant was excluded in analyses of gender difference.

The adolescents at Gymnasium level (n= 63; age: M= 16.98, SD= 0.98) were enrolled in programs focusing on social sciences, behavioral sciences, economics and law, and consisted of 48 women and 15 men.

Emerging adults at University level (n= 39; age: M= 22,74, SD= 2,84) were students at the departments of medicine, odontology, education and social sciences and were 33 women, 5 men and 1 person identifying as another gender.

Inclusion criteria. The survey was responded to by 720 participants. 377 of them were randomized to answer the turning point narrative analyzed in the present study. Excluding non-responses to the turning point question *(n = 161, emerging adults, n = 92, adolescents, n = 69),* cases where it was explicitly stated that the participant had no story to tell *(n = 2),* or where the narrative contained a referral to an event explained in the previous narrative question *(n = 2),* 212 participants remained. Of these, 110 had been randomized to answer BSI-18, the scale used to measure levels of psychological distress in the present study. Participants had to answer at least 1 item on each of the subscales (Depression, Anxiety and Somatization) of BSI-18 to be included in the study, which is the minimum criteria for conducting analyses with the scale (Derogatis, 2000). All remaining 110 participants met this inclusion criterion. Excluding University students older than 29 years (n = 8), left the 102 participants of the present study.

Data analyses

Sophistication of meaning. Following McLean's and Pratt's (2004) manual, every narrative was coded on a linear 0 to 3 scale (described in further detail below), with higher scores representing an increased complexity in meaning making. Both answers on the main turning point question and the three follow-up questions were included in the coding.

Narratives where reporters gave no explanation of what the event meant for them were coded as "No meaning" (= 0). The next level of sophistication of meaning was "Lesson learning" (= 1), given to narratives reporting a lesson learned from the event. "Lesson learning" represented the lowest level of meaning that yet included an explanation of what the event meant to the participant. Lessons are defined as specific meaning, often concerning a certain behavior which did not extend beyond the described

event. One example, taken from the current study, was a narrative where a participant described the choice to refrain from alcohol as a consequence of cleaning up after a too drunk family member. Narratives reporting a change in perspective or a self-growth, but without offering specifics, were coded as "Vague meaning" (= 2). Examples from the present study were explanations of the event making the participant feeling "...stronger, more mature, more independent", or as one participant simply put it: "...this made me view myself in another way". Narratives containing the highest form of meaning on the scale, "Insight", were given a score of 3. These were the narratives reporting meaning extending beyond the told event into other areas of life, where participants explicitly described a transformed understanding of themselves, the world or relationships.

19,6 % (N = 20) of narratives included in the study were randomly selected and scored by an independent rater for inter-rater reliability. Reliability was calculated using Cohen's weighted kappa (Cohen, 1968), and the score was acceptable (d= 0.63). Level of exact agreement was 70%.

Meaning valence. An adaptation of Banks' and Salmon's (2013) procedure was applied to code the narratives for valence in the participant's reasoning about the event's impact on the self. Only narratives coded as containing either lessons, vague meanings or insights on the sophistication of meaning scale were coded for meaning valence. Narratives not coded for meaning valence were labeled "No meaning". The coding categories were negative, neutral, positive, and mixed meaning valence. Below follow descriptions of each category. Examples within parentheses are taken from the present study. Meaning valence was coded as positive when the reporter described a growth, or an otherwise positive evaluation of the self (e.g., "I see myself as a much stronger person today"). Meaning valence was coded as negative when the event was connected to a personal negative characteristic, or when the reporter gave a negative evaluation of the self (e.g., "I guess I view myself as a somewhat worse person after this"). Valence was coded as neutral when the connection was not distinctly positive or negative (e.g., "I got a different view of myself"), and as mixed when the reporters explicitly evaluated themselves both negatively and positively. Inter-rater agreement was calculated using Cohen's kappa, and the resulting score was good (d=.83). Exact agreement was 90%.

Event valence. The valence of the described event was coded into four different categories: negative, neutral, positive or mixed. Following Lilgendahl and McAdams (2011) procedure coding of event valence was based on three factors: (1) An understanding of what is culturally considered a positive event (e.g., getting good grades) or negative (e.g., a relative's death) event, (2) the details given by the reporter about the event (e.g., a divorce described as very painful), and (3) the reported emotional reaction to the event (e.g. "I felt very betrayed and sad"). Emphasis was placed on separating the event valence from what impact the event had on the reporter, as the latter was coded separately as meaning valence. Inter-rater reliability was analyzed and calculated using Cohen's kappa. The agreement score was good (d=.79), exact agreement was 85%.

Statistical analyses. To analyze relations between sophistication of meaning and psychological distress in the whole sample as well as in age and gender groups, bivariate correlations were calculated using Pearson's correlation coefficient. Missing values were excluded pairwise.

Relations between meaning valence and psychological distress were analyzed conducting ANOVA. Missing cases were excluded analysis by analysis. For post hoc-testing of ANOVA results, Hochberg GT2, appropriate for analysis between samples of unequal size, was conducted (Field, 2013). The LSD post hoc test was adapted when a more liberal test than Hochberg GT2 was needed.

To compare means of sophistication of meaning and psychological distress between age and gender groups, *t*-tests were conducted. Missing values were excluded analysis by analysis. Meaning valence in relation to age and gender was calculated using chi-square analysis. Fisher's exact test was used when cells had an expected count less than five.

To compare means of psychological distress in relation to event valence, and means of sophistication of meaning in relation event valence, ANOVA was conducted. To analyze the relation between event valence and meaning valence Cramer's *V* was calculated.

Significance level used in all statistical analyses was *p* < 0.05.

Results

Meaning Making in Relation to Psychological Distress

Sophistication of meaning and psychological distress. The relations between sophistication of meaning and General Severity Index (GSI) and symptom dimensions of BSI-18 were investigated. Bivariate correlations between the mentioned variables are reported in Table 1. Contrary to the hypothesis, there were no significant correlations between sophistication of meaning and GSI or any of the dimensions of BSI-18. In other words, sophistication of meaning was unrelated to levels of psychological distress.

Table 1

Bivariate Correlations between Sophistication of Meaning, GSI and BSI-18 Dimensions

	2	3	4	5
1. Sophistication of Meaning	.09	.17	.02	.00
2. GSI		.89**	.86**	.80**
3. Depression			.63**	.54**
4. Anxiety				.62**
5. Somatization				

**p < .01

Meaning valence and psychological distress. Meaning valence was analyzed in relation to GSI and BSI-18 dimensions using ANOVA; see Table 2 for descriptive statistics. Meaning valence was related to the depression dimension of BSI-18, $F(4, 97) = 2.84$, $p = .028$, $\eta^2 = 0.11$, with a medium effect size. A Hochberg GT2 post hoc test was conducted to investigate between which categories of meaning valence the difference existed. However, the test revealed no significant differences in means on the depression dimension between the categories of meaning valence. In order to get an indication of between which categories of meaning valence the difference laid, Fisher's LSD, a more liberal post hoc test, was conducted. The results indicated that participants describing no meaning rated lower levels of depression than those with negative and mixed meaning valence and that negative valence was associated with more depression symptoms than neutral or positive valence. These results partly confirmed the hypothesis that negative meaning valence would be related to higher levels of psychological distress, and that positive meaning valence would be related to lower levels of psychological distress.

Table 2

GSI and BSI-18 Dimensions in Relation to Meaning Valence

	GSI	Depression	Anxiety	Somatization
Meaning valence	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
No meaning (*n* = 24)	1.88 (0.72)	2.06[a] (1.07)	1.91 (0.82)	1.68 (0.62)
Negative (*n* = 6)	2.28 (0.73)	3.27[b] (1.04)	1.88 (0.59)	1.69 (0.82)
Neutral (*n* = 13)	1.84 (0.61)	2.29[a] (0.89)	1.73 (0.56)	1.50 (0.58)
Positive (*n* = 54)	1.99 (0.64)	2.32[a] (0.99)	1.90 (0.66)	1.73 (0.61)
Mixed (*n* = 5)	2.76 (0.65)	3.24[b] (0.64)	2.80 (0.77)	2.23 (0.78)
Total	2.00 (0.68)	2.36 (1.03)	1.92 (0.71)	1.71 (0.63)

Note. Means having different superscripts ([a] and [b]) differed by at least $p < 0.05$.

Meaning Making and Psychological Distress in Relation to Age and Gender

Sophistication of meaning in relation to age and gender. Means of sophistication of meaning were compared between age groups and gender. Descriptive statistics are displayed in Table 3. Unexpectedly, the analysis showed no significant differences in sophistication of meaning between age groups. Another result contradicting the hypotheses was that women overall scored significantly higher on sophistication of meaning than men, $t(99) = 2.87$, $p = 0.005$, $\eta^2 = 0.08$. The eta square value indicated a small to medium to effect size of gender on sophistication of meaning.

Table 3

Sophistication of Meaning, GSI and BSI-18 dimensions, Depending on Age Group and Gender

Scale	Age group		Gender		
	Adolescents ($n = 63$)	Emerging adults ($n = 39$)	Women ($n = 81$)	Men ($n = 20$)	Total
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Sophistication of Meaning (0-3)	1.37 (0.97)	1.59 (0.99)	1.58[a] (0.95)	0.90[b] (0.97)	1.45 (0.98
BSI-18 (1-5)					
- GSI	2.06 (0.72)	1.87 (0.58)	2.10[a] (0.67)	1.62[b] (0.57)	2.00 (0.68)
- Depression	2.47 (1.07)	2.18 (0.95)	2.49[a] (1.02)	1.86[b] (0.92)	2.36 (1.03)
- Anxiety	1.96 (0.73)	1.79 (0.59)	2.00[a] (0.72)	1.63[b] (0.60)	1.92 (0.71)
- Somatization	1.76 (0.65)	1.63 (0.61)	1.80[a] (0.65)	1.38[b] (0.44)	1.71 (0.63)

Note. Means having different superscripts ([a] and [b]) differed by at least $p < 0.05$ between women and men.

Meaning valence in relation to age and gender. Differences between age groups and genders in the valence of the meaning made were investigated. Distribution of frequencies is displayed in Table 4. The analysis revealed that the tendency of making negative, neutral, positive, mixed or no meaning valence did not differ between adolescents and emerging adults. However, a gender difference was found ($p = 0.048$), where women described more positive meaning valence than men, and men described no meaning valence to a higher degree than women.

Psychological distress in relation to age and gender. Differences in means of psychological distress between age groups and genders were analyzed (for descriptive statistics, see Table 3). The results revealed no significant differences between age groups concerning GSI or any of the dimensions of BSI-18. In line with the hypotheses women rated higher levels of distress than men on GSI and on all dimensions of BSI-18 (GSI: $t(99) = 2.92$, $p = 0.004$, $\eta^2 = 0.079$; Depression: $t(99) = 2.53$, $p = 0.013$, $\eta^2 = 0.061$; Anxiety: $t(99) = 2.14$, $p = 0.035$, $\eta^2 = 0.044$; Somatization: $t(42) = 3.48$, $p = 0.001$ (*t*-values and degrees of freedom adjusted due to unequal variances), $\eta^2 = 0.11$). The analysis indicated close to medium to large effect sizes of gender on rates of psychological distress.

Table 4

Frequencies of Meaning Valence Separated by Age Group and Gender

| | Age group | | | | Gender | | | |
| | Adolescents | | Emerging adults | | Women | | Men | |
Meaning Valence	*n*	(%)	*n*	(%)	*n*	(%)	*n*	(%)
No meaning	16	25.4	8	20.5	15	18.5[a]	9	45.0[b]
Negative	5	7.9	1	2.6	4	4.9	2	10.0
Neutral	10	15.9	3	7.7	10	12.3	3	15.0
Positive	28	44.4	26	66.7	47	58.0[a]	6	30.0[b]
Mixed	4	6.3	1	2.6	5	6.2	0	0.0
Total	63	100	39	100	81	100	20	100

Note. Percentages having different superscripts ([a] and [b]) differed by at least $p < 0.05$ between women and men.

The relation between sophistication of meaning and psychological distress within age and gender groups. In the purpose of investigating relations between sophistication of meaning and psychological distress within age and gender groups, bivariate correlations were calculated for each age and gender group respectively (see Table 5).

Table 5

Bivariate Correlations between Sophistication of Meaning, GSI and BSI-18 Dimensions Separated by Age Group (Adolescents below the Diagonal, Emerging Adults above)

	1	2	3	4	5
1. Sophistication of meaning		-.21	-.12	-.08	-.34*
2. GSI	.27*		.84**	.81**	.75**
3. Depression	.36**	.91**		.49**	.37*
4. Anxiety	.09	.88**	.68**		.56**
5. Somatization	.22	.82**	.62**	.64**	

Note. $n = 63$ (Adolescents), $n = 39$ (Emerging adults)
**$p < .01$, *$p < 0.05$

14

Positive, significant correlations were found between Sophistication of Meaning and distress in the adolescent group in regard to GSI and Depression, but not for Anxiety and Somatization. In the emerging adults group Sophistication of Meaning was negatively correlated with Somatization, but no other significant correlation with distress was found.

Within groups of women and men the level of Sophistication of meaning was not significantly correlated to GSI or any dimension of BSI-18. See Table 6.

Due to small group sizes, the relation between meaning valence and psychological distress within age and gender groups could not be analyzed.

Table 6

Bivariate Correlations between Sophistication of Meaning, GSI and BSI-18 Dimensions Separated by Gender (Women below the Diagonal, Men above)

	1	2	3	4	5
1. Sophistication of meaning		.33	.34	.31	.16
2. GSI	-.04		.95**	.86**	.78**
3. Depression	.06	.87**		.72**	.66**
4. Anxiety	-.10	.86**	.59**		.49*
5. Somatization	-.11	.78*	.48**	.61**	

Note. n = 81 (Women), *n* = 20 (Men)
**p < .01, *p < 0.05

Meaning Making and Psychological Distress in Relation to Event Valence

Sophistication of meaning in relation to event valence. Contrary to the hypothesis, the analysis revealed no significant differences in levels of sophistication of meaning between categories of event valence, that is, equal amount of meaning was made from negative, neutral, positive and mixed events. The descriptive statistics are presented in Table 8.

Meaning valence in relation to event valence. The agreement between meaning valence and event valence was Cramer's *V* = 0.34, *p* > .001. This indicates a strong association between valence of the meaning made and the valence of the event, thus confirming the hypothesis.

Table 8

Sophistication of Meaning in relation to Event Valence, and Distribution of Frequencies between Event Valence and Meaning Valence

Event Valence	Sophistication of Meaning M (SD)		Meaning valence					
			No meaning	Negative	Neutral	Positive	Mixed	Total
Negative	1.58 (0.96)		6	5	9	15	5	40
Neutral	1.00 (1.30)		8	0	1	5	0	14
Positive	1.48 (0.87)		7	0	1	25	0	33
Mixed	1.67 (0.78)		1	1	2	8	0	12
		Total	22	6	13	53	5	99

Psychological distress in relation to event valence. The relation between event valence and GSI and dimensions of BSI-18 was analyzed, for descriptive statistics see Table 9. The analysis indicated no significant differences between means of GSI or any BSI-18 dimension depending on the valence of event. Thus, whether the event described was negative, neutral, positive or a mix of positive and negative was not related to psychological distress.

Table 9

GSI and BSI-18 Dimensions in relation to Event Valence

Event Valence	GSI M (SD)	Depression M (SD)	Anxiety M (SD)	Somatization M (SD)
Negative ($n = 40$)	2.06 (0.65)	2.51 (1.02)	1.96 (0.65)	1.72 (0.65)
Neutral ($n = 14$)	1.78 (0.71)	2.00 (1.10)	1.87 (0.80)	1.46 (0.53)
Positive ($n = 33$)	2.07 (0.68)	2.41 (1.02)	1.94 (0.74)	1.86 (0.65)
Mixed ($n = 12$)	1.83 (0.76)	2.07 (0.94)	1.83 (0.84)	1.60 (0.64)

Discussion

The main purpose of this study was to investigate relations between meaning making and psychological distress among adolescents and emerging adults in Sweden.

16

Below the results are discussed in relation to the three research questions guiding the study.

Meaning Making in Relation to Psychological Distress

First, sophistication of meaning and meaning valence were investigated in relation to psychological distress. Contrary to previous research and the hypothesis, sophistication of meaning was not related to psychological distress. This study started off by noting that meta-analyses conclude that meaning making has been constructed and measured in various ways, and that different constructs might have different associations with psychological functioning (Park, 2010). That no correlation between sophistication of meaning and psychological distress in this sample was found could be understood by how the process of meaning making might be different for different people (Pasupathi, 2013). Providing meaning to past events could be associated to positive outcomes, but making meaning out of past events may also permit the past events to define the identity. This may especially be true when making meaning out of stressful events and integrating them as a part of the identity (Berntsen & Rubin, 2007), in ways that in the end could be problematic (Pasupathi, 2013). This argument highlights two different meaning making processes: one constructive, possibly leading to less psychological distress, and one destructive where the individual might integrate negative experiences into the identity, possibly linked to more distress. If sophistication of meaning is a process linked to less distress for some individuals, while it is related to more distress for others, it is to no surprise that no clear connection between sophistication of meaning and psychological distress was found in this study. Indeed, as Greenhot and McLean (2013) put it, when it comes to meaning making more might not always be better.

The above argument is supported by the results from the present study concerning meaning valence. The results imply that the *level* of meaning (i.e. sophistication of meaning) is less associated to psychological distress than *how* that meaning is made (i.e. meaning valence). The hypothesis was confirmed in that negative meaning valence was associated with more symptoms of depression than positive or neutral meaning valence. The results may support the constructionist perspective (McLean, Pasupathi & Pals, 2007) that creating a narrative where negative aspects are attributed to the self could convince narrators that they do hold these aspects, and this, in turn, could lead to experiences of distress. Indeed, previous studies suggest that meaning valence is an important predictor of psychological functioning, and might reflect different kinds of cognitive processing involved in meaning making (Banks & Salmon, 2013; Lilgendahl & McAdams, 2011). Negative meaning valence might capture "the downside" aspect of meaning making, when individuals do not find a solution to their problems but instead start to ruminate about past events. Habermas and Köber (2015) make the argument that this type of meaning making could take the form of repetitive and circular reasoning similar to a depressive explanatory style. Positive meaning valence, on the other hand, may reflect the meaning making that involves finding resolutions and adapting to past events (e.g., Fivush et al., 2012), that has been linked to positive psychological functioning.

17

Meaning Making and Psychological Distress in Relation to Age and Gender

The second research question was how sophistication of meaning and meaning valence were related to age and gender. Results revealed no age difference in levels of sophistication of meaning, disconfirming the hypothesis that emerging adults would include higher levels of sophistication of meaning in their narratives than adolescents. The hypothesis was guided by studies indicating that sophistication of meaning increases over adolescence and adulthood (McLean & Breen, 2009; McLean et al., 2010; Pasupathi & Mansour, 2006), with a marked spurt in meaning making processes happening in the ages 15 to 16. The age span in the present study sample was 15 to 28 years. If most of the changes in meaning making processes occur before or in the very beginning of the investigated age span, the increase might have been difficult to detect as a difference between age groups. This might explain why no age difference in sophistication of meaning was found in the present study.

Contrary to the hypothesis women wrote narratives containing higher levels of sophistication of meaning than men. The effect size of gender was small to medium. Most studies (McLean, 2005; McLean & Breen, 2009; McLean & Pratt, 2006; McLean & Thorne, 2003) have implied no gender differences. Only a study made by Fivush and colleagues (2012) indicates the same gender difference in sophistication of meaning as found in this study. They argue that their finding is part of bigger picture: that women have been shown to write more coherent and elaborative narratives (Fivush et al., 2012), and include more cognitive and emotional words in their stories than men (Bohanek & Fivush, 2010). There is substantial support for these differences in childhood (for an overview, see Fivush & Zaman, 2015), but it has been unclear whether they continue into adolescence and emerging adulthood, and if these differences could be translated into a difference in sophistication of meaning (McLean & Breen, 2009). Results from this study could suggest that childhood gender differences in meaning making processes may continue into adolescence. If they do, they might explain the difference in levels of sophistication of meaning between women and men in the present study. On the other hand, this argument assumes that most previous studies have failed to capture an existing gender difference in sophistication of meaning, which is not very likely. An alternative explanation is that narratives are constructed in a cultural context (McLean & Syed, 2015). The found gender differences in sophistication of meaning might say something about the Swedish context in which the present study was conducted. Most studies have been investigating meaning making in an American context. It has been argued that Americans relate to a master narrative of redemption, a narrative found in the culture and the history, when constructing their personal narratives (Hammack, 2008). The American master narrative emphasize stories of negative events turning into positive outcomes for the individual, and thus encourage the individual to make this kind of meaning out of life events (Hammack, 2008). The master narrative in Sweden has to my knowledge not been investigated. The Swedish master narrative could be different, and might not encourage meaning making to the same extent as the American one. Speculatively, the American master narrative might "push" the boys to catch up with fellow girls in meaning making processes during adolescence. No such "push" might exist in Sweden, and thus earlier gender differences might continue into adolescence. This may, again highly speculative,

explain why gender differences in sophistication of meaning was found in this study but not in most previous research.

Meaning valence was found to not differ between age groups, but did differ between genders. Women made more positive meanings than men, and men did to a higher degree than women describe no meaning valence in their narratives. To an extent this result might reflect that men in the present study were lower on sophistication of meaning than women, and thus men were overrepresented in the category no meaning (a mutual category for sophistication of meaning and meaning valence). Additionally, though, the result also suggests a difference between men and women in how making meaning generally is used. Women seem to use meaning making to draw positive conclusions about how the past has affected the self, while men do not engage in meaning making at all. Due to small sample sizes, no analysis could be made regarding implications of this gender difference on psychological distress. In other words, how the gender difference in meaning valence relates to symptoms of distress for women and men respectively could not be analyzed in the present study. More over, note should be taken that because of the small sample sizes these results are difficult to evaluate and should only be interpreted as indications. Future research could investigate this area in further detail.

The present study also revealed a relation between sophistication of meaning and psychological distress in the adolescent group. To adolescents, making more meaning was related to more psychological distress. Previous studies have only found this relation in adolescents aged 11 to 16 (McLean et al., 2010; Chen et al., 2012). The results indicate that this relation might exist among adolescents aged 15-19, but due to the limited sample it could not be investigated whether this relation was the same for middle and late adolescents. The only other significant correlation within age and gender groups was that sophistication of meaning was related to less somatization distress among emerging adults. These results indicate that the underlying construct of meaning making could differ between adolescents and emerging adults. A single measure of meaning making, as conducted in the present study, have been argued to capture essentially two types of underlying constructs: long established meanings and newly made meanings (Pasupathi, 2013). Emerging adults may generally engage in the first type more, simply because they have had more time to establish meanings, while adolescents may engage more in the latter; attempts of making meaning. The first type of meaning making may be connected to less distress, since it is representing a meaning that is well integrated and sits well with the reporter (Pasupathi, 2013). The other type, newly constructed meanings, is more likely to be unstable and less integrated. This type of meaning making may in many cases reflect attempts of making meaning triggered by stressful events and unsurprisingly, it might be related to distress in a higher degree than long established meanings (Pasupathi, 2013). To summarize, an explanation to why sophistication was related to more psychological distress in adolescents and not in emerging adults could be that adolescents to higher degree engage in attempts of meaning making, while emerging adults' narratives describe long established meanings.

Sophistication of meaning was unrelated to psychological distress within gender groups. Due to a small sample size of men, that no relation was found between sophistication of meaning and psychological distress for women might partly mirror that

no relation was found in the whole sample. For the same reason, results concerning correlations between sophistication of meaning and psychological distress in the group of men is difficult to interpret.

Meaning Making and Psychological Distress in Relation to Event Valence

In the last part of the study sophistication of meaning, meaning valence and psychological distress were investigated in relation to event valence. The hypothesis that negative event valence would be associated with higher levels of sophistication of meaning was disconfirmed. Instead, equal levels of meaning seemed to have been made from negative, neutral, positive and mixed events. One explanation is that the literature on meaning making in relation psychological functioning generally has focused on individuals' adaptation to traumatic and highly negative events (e.g., Park, 2010; Waters et al., 2013). In the present study, participants were asked for a turning point, making it less likely participants would describe highly negative events such as a trauma. The type of negative events shared in the present study might generally require less reasoning than the highly negative events often studied in the literature. Thus, it may explain why sophistication of meaning was unrelated to event valence.

Moreover, event valence was strongly associated with meaning valence. Due to methodological differences (calculation of Cramer's V for categorical data and bivariate correlation analysis of ordinal data, respectively), the relation between event valence and meaning valence in the present study cannot be compared to the relation investigated in a previous study (Lilgendahl & McAdams, 2011). However, this result support the notion that event valence and meaning valence are separate, yet related, constructs worth investigating in regard to how individuals make meanings out of past events (Banks & Salmon, 2013; Lilgendahl & McAdams, 2011).

Finally, event valence was found to be unrelated to psychological distress. In the light of other results from the present study, this might indicate that the way individuals reason about events are of higher importance for psychological functioning than what type of event is narrated. In fact, the very concept of a narrative identity is that one's life story is a subjective story impacted at least as much by how the story is created as by factual circumstances (e.g., McAdams, 2011). This said, whether the narrated event is positive or negative has been shown to do play an important role as a moderator in how meaning making relates to psychological distress (e.g. Banks & Salmon, 2013, Lilgendahl & McAdams, 2011). However, because of small sample sizes in the present study, no calculations of moderation effects were possible.

Limitations of the Study

The first limitations of this study is the small number of male participants, which made some analyses of gender differences more difficult, and some impossible. More male participants would have made analyses of gender differences within age groups possible, an interesting area worth more focus. A second limitation is the relatively low

inter-rater agreement on coding for sophistication of meaning. A third limitation is that meaning valence was coded into five, and event valence into four, distinct categories. Occasionally this made the sample sizes very small, and analyses inappropriate. Coding meaning valence and event valence on a graded scale might have simplified calculations. For example, instead of analysis of distribution of frequencies, correlation analysis could have been used to a higher degree. Graded scales of meaning valence and event valence might also have facilitated in finding nuances in valences of events and valences of meanings. As an example, the present methodology coded an event as "negative" independent if the event was a minor issue or the individual's worst trauma. This simplified categorization prevented investigation into differences in impact of highly negative events versus less negative events, highly positive events versus slightly positive events etc.

The results from the present study may have limitations concerning generalizability. Although participants in the present study were picked from several schools and programs, they might not be representable of adolescents and emerging adults in general. The sample consisted mostly of students enrolled in theoretically focused programs, most of them used to complete written tasks such as was asked for in the present study. Thus, the result might have been different including participants with less habit of studying. Additionally, the task of writing a narrative might have prevented less motivated students to answer the questionnaire, and probably stopped students not feeling they mastered the Swedish language from participating in the study. The mentioned problems could partly have been resolved by performing oral interviews with participants instead of written questionnaires. However, such time consuming procedure was not possible in the present study.

Another limitation is the drop-out percentage of emerging adults in regard to the turning point question. Among emerging adults this was 57%, in comparison with 35% of adolescents. This could be another reason than those previously mentioned for why the present study did not find increased meaning making with age. Since the age related increase in meaning making is a quite robust finding (e.g., McLean, 2008; McLean & Breen, 2009; McLean, et al., 2010), a possible explanation is that the present study failed to capture these differences. This could also be due to differences between adolescents and emerging adults in how the survey was distributed. Adolescents were given time during lecture hour to fill out the survey. This procedure was only done occasionally for emerging adults. Generally, they were asked to fill out the questionnaire in their spare time. Not giving dedicated time to emerging adults to fill out the questionnaire might have caused more "rushed" answers, especially since the survey was time consuming. In turn, this may have resulted in less reflection in narratives or decisions of not answering narrative questions at all. Though just speculations, this could have impacted that emerging adults were lower in sophistication of meaning than expected. To minimize problems of this sort in future research effort should be put into standardizing procedures, making sure that all participants in the study are given equal conditions while responding.

Lastly follows more suggestions for future research. As previously mentioned, analyses of gender differences in this study were limited due to small samples of males. By including more men in future studies such analyses could be conducted more in depth, including investigating gender differences in how meaning making is related to

psychological distress. Bigger sample sizes in general would also make analyses of interaction effects possible. As already mentioned, an area of interest might be if sophistication of meaning or meaning valence in combination with event valence might contribute to more or less psychological distress. Further examination could include analyzing whether these interactions might differ depending on age and gender. Additional investigations into this area could help in deepening the understanding of when, and for whom, meaning making is related to psychological distress.

Conclusion

The aim of this study was to investigate how meaning making is related to psychological distress among adolescents and emerging adults. Although sophistication of meaning generally were unrelated to psychological distress, there were indications that negative meaning valence might be related to more psychological distress. Contrary to previous research, no age difference in sophistication of meaning was found, and a gender difference was revealed wherein female participants included more meaning in their narratives than males. Women did also make more positive meanings than men, while men described no meaning valence to a higher degree than women. For adolescents, higher sophistication of meaning actually was related to more distress. For emerging adults, higher sophistication of meaning was associated with less somatization distress. Event valence was unrelated to sophistication of meaning and psychological distress, but strongly related to meaning valence. In conclusion, the results indicate that meaning making processes in adolescence and emerging adulthood might vary depending on age and gender, and that different aspects of meaning making might relate differently to psychological distress.

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