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The Normative and the Personal Life: Individual Differences in Life Scripts and Life Story Events among U.S.A. and Danish Undergraduates

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Abstract

Life scripts are culturally shared expectations about the order and timing of life events in a prototypical life course. American and Danish undergraduates produced life story events and life scripts by listing the seven most important events in their own lives and in the lives of hypothetical people living ordinary lives. They also rated their events on several scales and completed measures of depression, PTSD symptoms, and centrality of a negative event to their lives. The Danish life script replicated earlier work; the American life script showed minor differences from the Danish life script, apparently reflecting genuine differences in shared events as well as less homogeneity in the American sample. Both consisted of mostly positive events that came disproportionately from ages 15 to 30. Valence of life story events correlated with life script valence, depression, PTSD symptoms, and identity. In the Danish undergraduates, measures of life story deviation from the life script correlated with measures of depression and PTSD symptoms.

In a (post)modern age with changing life conditions, unstable values, and constant demands of flexibility, life stories are often depicted as a process through which the individual attempts to maintain a sense of identity and continuity through the construal of personal meaning with very few stable cultural norms for guidance (e.g., Giddens, 1991). However, life stories are not created in isolation based simply on personal experience. As pointed out by several theorists, life stories are guided by shared cultural norms for their content and organization. For example, Habermas and Bluck (2000) identify four different types of life story coherence, of which *cultural coherence* – reflecting a cultural concept of biography – is one. McAdams (2001) states that life stories “live in cultures. They are born, they grow, they proliferate, and they eventually die according to the norms, rules and traditions that prevail in a given society” (p. 114). Consistent with this view, we have demonstrated that the idea of a normative biography still exists in most people’s mind – even though their own lives may deviate from it. We have introduced the notion of *the cultural life script*, which refers to measurable culturally shared expectations about the order and timing of events in a prototypical life course (Berntsen & Rubin, 2002, 2004; Rubin & Berntsen, 2003). We have provided systematic empirical evidence for the existence of life scripts as shared cognitive structures within a culture and we have found a high correlation between the life course

pattern predicted by life scripts and the distribution of autobiographical memories retrieved in response to requests for emotionally charged autobiographical memories (Rubin & Berntsen, 2003; Berntsen & Rubin, 2004).

However, the constituents of a personal life story are not simply cultural norms. The life story can be seen as the highest level of personality organization, integrating traits as well as personal projects and values (McAdams (1995,2001; also see Conway, 2005). Thus, factors such as personality traits, values, concerns as well as specific characteristics of the personal past influence the degree to which an individual life story will agree with or deviate from cultural life script norms. The two concepts also differ regarding the time range of the life span that they cover. By definition, the cultural life script covers a prototypical person's life from birth to death, whereas a personal life story, by definition, only covers the person's life from birth to the point of narration (Berntsen & Rubin, 2004;Conway, 2005). Given these differences between the two concepts, one of our aims is to examine the overlap between events in the life story and events in the life script among young adults. Because we are dealing with two related cognitive structures, we expect considerable, but far from complete, overlaps in these measures. The fact that our participants are young adults does not preclude a substantial overlap in that 18 (51%) of the 35 life script event categories listed by Berntsen and Rubin (2004,Table 3) refer to events estimated to happen before age 20, and 25 (71%) before age 30. Thus, the life script includes disproportionately many events from the first 2 - 3 decades of life. In fact, tests similar to the ones given here have worked with children between 9 and 14 years of age (Bohn & Berntsen, 2008). A second goal is to treat variations in this degree of overlap as an individual differences measure that may be related to other individual differences measures, such as measures of depression and posttraumatic distress. A third goal is simply to measure the life script in a sample of young American adults to provide norms that are suitable for further studies in the U.S.A. The following is a review of previous theoretical and empirical work on life scripts and autobiographical memory (for more details, see Berntsen & Rubin, 2004;Rubin & Berntsen, 2003).

The Notion of the Life Script and Its Empirical Support

The notion of life script combines the concept of script as developed by Schank and Abelson (1977) with the idea of age stratification and culturally sanctioned age norms from research in anthropology and sociology (e.g., Foner & Kertzer, 1979; Fry, 1980, 1983; Neugarten, 1968; Neugarten & Hägestad, 1976; Neugarten, Moore and Lowe, 1965; Settersten & Hägestad, 1996a, 1996b). A script is a series of events that unfold in a specific order, with each event enabling the events that follow, and composing a stereotypical episode, such as eating in a restaurant (Abelson, 1981; Schank & Abelson, 1977; Schank, 1982, 1999). In the same way, a life script represents a series of events that take place in a specific order and represents a prototypical life course within a certain culture (Rubin & Berntsen, 2003).

More formally, the notion of life scripts has the following ten properties (see Berntsen & Rubin, 2004, p. 430). The first six properties follow from Schank and Abelson's (1977) script notion, whereas the last four differ from it. (1) A life script is semantic knowledge about expectations in a given culture about life events, not a form of (personal) episodic memory for those events. (2) A life script is a series of temporally ordered events. (3) Life scripts can be described in terms of slots and their requirements. (4) Life scripts form a hierarchical arrangement with transitional event forming a higher order "scene" in which a series of subordinate actions or episodes are nested. (5) Life scripts are used to process life stories. (6) The slots and their requirements for life scripts are culturally important transitional events and their culturally sanctioned timing. (7) Because life scripts represent a normative life course, life scripts are not extracted from personal actions in recurrent contexts, but are transmitted by tradition. Young people, who have lived through only a

smaller part of their life, know the life script of their culture. (8) Life scripts do not represent an average life, but represent an idealized life in that many common and important events are left out. (9) Life scripts are distorted from actual lives to favor positive events. (10) Life scripts are distorted from actual lives to favor events expected to occur in the period covered by “the bump”.

In order to examine these theoretical claims, Berntsen and Rubin (2004) asked 103 Danish psychology majors to generate seven events that were most likely to happen in a prototypical life course. We found a high overlap among the events generated by the participants, supporting the assumption of a shared cognitive structure. Consistent with life scripts having a temporal structure, we found a correlation between the order in which events were generated and their estimated dates. Consistent with the assumption of an idealized or “fairytale” version of life, we found a marked dominance of positive events. Consistent with the assumption that negative events have more poorly specified temporal slots than the positive events, the age estimates for negative events had higher standard deviations than age estimates for positive and neutral events. Furthermore, the frequency by which events were recorded was strongly predicted by valence and whether the event was dated during the period of the reminiscence bump – that is, the age period 15 – 30 years from which an enhanced frequency of autobiographical memories is observed (Rubin, Wetzler, & Nebes, 1986). In addition, the majority of positive events were estimated to occur between ages 15 and 30, whereas the life span distribution of negative events was relatively flat. This is consistent with data on recall from autobiographical memory reported by Berntsen and Rubin (2002; 2004) and Rubin and Berntsen (2003). Finally, consistent with the claim that mainly culturally sanctioned transitional events go into the life script, we found a dominance of culturally sanctioned transitional events (such as marriage), rather than purely biological events (such as menarche).

Recently, these findings were replicated and extended in a study involving a sample of Turkish college students (Erdoğan, Baran, Avlar, Taş, & Tekcan, 2008). The Turkish students were asked to list the seven most important events in the prototypical life of either a newborn infant or older person looking back. In both conditions, a clear life script was obtained with stronger agreement on the timing for positive than for negative events. Also, consistent with the findings from the Danish samples, the Turkish life script events that were rated as positive formed a marked bump in the second and third decades of life, whereas negative and neutral events did not. However, a comparison with Berntsen and Rubin’s (2004) findings also shows a number of differences (related to the newborn infant conditions used in both studies). First, some events were included in the Turkish life script – e.g., “military service” and “circumcision” – but not in the Danish **life script**. Likewise, some events were included only in the Danish life script – e.g., “long trip” and “first friend”). Second, the 95 Turkish participants generated only 27 events agreed upon by more than 3 participants, whereas the 103 Danes generated 35 events, suggesting more homogeneity in the latter sample. Third, the Turkish life script included more events rated as negative (44%) than the Danish life script did (29%; $\chi^2 = 3.93, p < .05$), see Habermas (2007) for related findings in a German population.

The Life Script Structures the Recall of Life Story Events

Although life scripts appear to structure recall from autobiographical memory, it should be emphasized that the life script theory as described by Berntsen and Rubin (2004) only predicts a partial (not complete) overlap between events in the life script and events in the life story. The size of this overlap will vary as a function of at least two issues: (1) the memory task and (2) the actual past as well as the present life circumstances and psychological makeup of the individual narrator. A life script is not a life story. A life script

helps to structure individual life stories by providing a general schema from which a particular instance, with all its deviations from the schema, can be organized. Thus, for a specific person, events in the personal life story as well as their timing may conflict with the events and timing prescribed by the cultural life script (Neugarten & Hagestad, 1976; Shai, 2002). Expressed in the distinctions used in cognitive psychology, life scripts are a form of semantic knowledge, whereas a life narrative represents episodic or autobiographical knowledge (Conway, 2005; Conway & Pleydell-Pearce, 2000).

Because the two structures are only expected to be partially overlapping, it makes sense to examine their degree of overlap for various individuals and for various tasks. As we have argued earlier (Berntsen & Rubin, 2004) a request for an autobiographical memory associated with a random word is less likely to activate the life script than a request to generate events relevant to one's life story. Recent studies support this claim. In a diary study of involuntary (spontaneously arising) versus voluntary (word cued) autobiographical events and future event representations, Berntsen and Jacobsen (in press) found that only 11 to 16% of the four classes of events referred to cultural life script events. In contrast, in a study that requested 59 older Danes to generate the five memories of most importance to their life story, 61% of the events referred to frequent life script events (Thomsen & Berntsen, 2008). In a study involving 659 middle-aged and older Austrians (Glück & Bluck, 2007), 46% of 3,541 important life events referred to one of the ten most frequently mentioned life script events in Berntsen and Rubin's (2004) study. The lower frequency among the Austrians as compared to the Danes most likely reflects that Glück and Bluck (2007) chose to limit their analysis to events that had taken place before the participants' 50th birthday, whereas Thomsen and Berntsen (2008) also included later events. At any rate, the overlap between life story events and life script events appears to be substantial in studies with a direct request for life story events and considerably less in studies with more random sampling techniques.

Following the dominance of positive events in the cultural life script, Berntsen and Rubin (2004) also argued that a request for extremely positive or important memories would be likely to activate a person's life script, because most culturally expected transitional events are considered positive and important. A request for extremely negative events, on the other hand, would be less likely to activate life scripts, because highly negative events typically consists of either deviations from the timing and sequencing of the life script or of non-scripted events. Our previous findings support these claims, in that the life distribution of emotionally positive and important events paralleled the temporal distribution of life script events, whereas the distributions of emotionally negative personal events did not (Rubin & Berntsen, 2003; Berntsen & Rubin, 2004). In a more detailed analysis, Collins, Pillemer, Ivcevic, and Gooze (2007) asked middle-aged and young adults to generate events from the ages of 8 to 18 years in which they had felt especially good or especially bad about themselves. Distributions of the positive memories showed a clear peak at ages 17 and 18, whereas the distribution of negative events was quite uniform. Content analyses of the memories showed that the peak of positive memories at ages 17 and 18 could be accounted for in terms of the culturally prescribed life transition from high school to college around that age. Similar analyses conducted for an earlier life period characterized by having no normative transitional events showed no differences in the distribution of the positive and negative events.

In addition to differences in autobiographical memory tasks, the overlap between a person's life story events and the life script may vary as a function of issues particular to the person and his or her psychological makeup. Notably, it may vary as a function of specific experiences in the individual's past and how he or she has coped with these events. In our earlier work (Berntsen & Rubin, 2006, 2007), we have shown that people with traumas in

their past differ with regard to how central they consider the traumatic event to be for their life story and identity. Because a traumatic event (e.g., a violent assault) is almost by definition a life script deviant experience, having a traumatic event as central to one's life story and identity would be likely to reduce the amount of overlap between events in this person's life story and events in the cultural life script. Recently we introduced the Centrality of Event Scale (CES; Berntsen & Rubin, 2006), which measures the extent to which a traumatic memory forms a central component of personal identity, a turning point in the life story and a reference point for everyday inferences. In a number of studies, we have shown that the CES is positively correlated with symptoms of Posttraumatic Stress Disorder (PTSD), even when controlling for measures of anxiety, depression, dissociation and self-consciousness (e.g., Berntsen & Rubin, 2007). One aim in the present work is to examine whether the CES and measures of PTSD symptoms would correlate with having a reduced overlap between life story events and cultural life script events. Only one study has so far treated variations on this overlap as an individual differences measure: Habermas, Ott, Shubert, Schneider and Pate (in press) examined life narratives among 25 clinically depressed patients and 25 controls matched on gender, age and education. They found a higher frequency of negative events, a more depressive style of explanation, and a less linear narration among the depressed subjects. They also measured whether events in the personal life story corresponded to the life scripts events listed by Berntsen and Rubin (2004). However, the frequency of life script events included in the life story did not differ between the two groups.

The Present Studies

Here, we have four main goals in investigating the life script. First, we wish to measure the life script in a sample of U.S.A. undergraduates to provide norms more suitable for work in the U.S.A. and to provide another comparison for studies done elsewhere. In the range of differences among cultures worldwide, Denmark and the U.S.A. are similar and so we do not expect major differences. Second, we want to measure the stability of the life script by testing it in a second group of Danish undergraduates. If the concept of life script is the kind of semantic knowledge we propose then, barring a change in the cultural expectations, it should be quite stable. Third, we want to examine the overlap between the events in the life story and life script among young adults and thus extend the previous work done on middle-aged and older adults. Fourth, we want to investigate individual differences in the life script and life story. The further a person's life story is from the normative life script the more likely they are to be at odds with cultural expectations, which may be associated with emotional distress (Luborsky, 1993). Also, if a person has an atypical view of the life script, then they may be less well tuned to the expectations of their culture or of the culture in which they live and may have more personal and emotional difficulties.

We measure the typicality of the life script and life story events, generated by our participants, based on how well they match the average life script, and we also make a measure on how well each individual's life story events match their own life script events. In addition, we include measures of emotional valence of items in the life story and life script in order to see if a generally positive or negative view of the life lived or of an ideal life is related to other measures. Because the undergraduates we tested in Denmark at average were eight years older than those tested in the U.S.A., we may see more effects of the variation of life story in the individual differences of the Danish sample.

In two studies, we ask our participants to generate seven events that would go into their life script and life story, respectively. We then ask them to rate these events on a number of scales and to fill in questionnaires measuring individual differences. More specifically, we compare our measures based on the life script and life story to measures of depression under

the hypothesis that people who are more depressed will have negative events and negative autobiographical memories more easily available (Williams, 1996) and will judge them to be among those that should go into a life script and their own life story. We compare our measures based on the life story to an inventory of PTSD symptoms under the hypothesis that having a highly stressful negative event as easily available and showing avoidance and arousal symptoms to that event is more likely to lead to a view of one's own life that is less prototypical, that is, a life story that is less consistent with the life script. Having PTSD symptoms may even lead to a less prototypical life script if one perceives traumatic events as more likely and common than others do. We compare our measures based on the life script and life story to measures of how central a negative event has become to one's life story under the hypothesis that people who judge a very negative event to be central to their lives will have that and other related events more easily available (Berntsen & Rubin, 2006, 2007) and will judge them to be among those that should go into a life script and their own life story. Finally, in Study 2, we include measures of basic assumptions of the benevolence of the world, meaningfulness of life and self worthiness (Janoff-Bulman, 1988) under the assumption that these will be positively correlated with the valence and typicality of the life story and the life script.

Study 1

Method

Participants—One hundred Duke undergraduates participated for course credit (55 females; mean age = 18.69 years, age range 18-28).

Design—Because one main goal of Study 1 was to establish a life script for American undergraduates, participants generated seven events that would go into a life script before the seven events that would go into their life story. Next, participants answered four questions about each of the generated events. Finally, participants completed individual differences questionnaires probing symptoms of posttraumatic stress and depression.

Materials—Each participant received a booklet with written instructions and questions. Participants generated events for the life story and life script on separate pages, which each had seven numbered lines. The instructions for the life script events followed the ones used in Berntsen and Rubin (2004) and were as follows: “This study deals with our expectations to an ordinary life course within our culture. Your task is to decide which events are expected to take place in a typical life course. You should therefore not think about your own personal life when answering the questions, but a prototypical life. There are no right or wrong answers. We are interested in your intuition about these questions. Imagine a quite ordinary infant of your own gender. It cannot be a specific infant that you know, but a prototypical infant in our culture with a quite ordinary life course ahead. Your task is to write down the seven most important events that you imagine are most likely to take place in this prototypical infant's life, from birth to death. Write the events in the same order as they come to your mind. Give each event a short title that specifies its content.”

The instructions for the life story events were as follows: “This part deals with your personal life story. Your task is to decide which events are most central to the story of your own life. It has to be events that you have personally experienced. It is your personal life and personal life story that this task is about. There are no right or wrong answers. You are the one who knows best what has been central to your life. Imagine that you are to tell your life story to a new friend, whom you have just met and who therefore doesn't know anything about your past. It is a (fictitious) friend with whom you are absolutely confident and with whom you can be completely honest. Your task is to note the seven memories about events from your own personal life – from your birth to your present age – that you think are most central to

your life story. Write the events in the same order as they come to your mind. Give each event a short title so that you yourself are able to identify the event afterwards”.

The following four questions were answered for the seven life script events. *Prevalence*: How *common* is the event: Out of a hundred people how many will experience this event at least once during their life? (the number of people out of 100 was estimated). How *important* is the event? The event is (1 = unimportant; 7 = of greatest importance). *Age*: At what *age* is the event expected to take place? (estimated age in years). *Valence*. Is the event emotionally positive or negative (-3 = very negative; 3 = very positive)? The same four questions were answered for the life story with the following modifications: the words “to you” were added at the end of the *important* and *valence* questions, and the *age* question was altered to “How old were you when the event took place”.

The typed instructions for the life script were: “Please answer the questions below for each of the seven events that you chose as most likely in a typical life course. For each event you will be asked to estimate its frequency, importance and the emotional content of the event. You will also be asked to estimate at about which age each event is expected to take place in a typical life course. Once again: There are no “correct” or “incorrect” answers. Use your intuition and answer the best you can. If you are much in doubt, give your best guess.” The instructions for the life story were: “Please answer the questions below for each of the seven events that you chose as being most central to your personal life story. For each event you will be asked to estimate how common the event is, and how important it is to you and how you feel about it. You will also be asked to report your age at the time when the event took place. Again, there are no correct or incorrect answers. It is your personal assessments that we are asking for.”

Following the life script and life story questions, the booklets included the following questionnaires: Beck Depression Inventory II (BDI-II, Beck, Steer & Brown, 1996), the Posttraumatic Stress Disorder Checklist (PCL; Blanchard et al., 1996; Weathers, Litz, Huska, & Keane, 1994), and the 20-item Centrality of Event Scale (CES; Berntsen & Rubin, 2006).

Individual differences measures from the life script and life story—Several measures for the conventionality and pleasantness of life story and life script events were generated for each participant. Table 1 provides an overview. As these measures show, we define the life script and life story empirically based on the participants’ responses. Even though one could argue theoretically that very negative events with large variation in their age of occurrence are not really part of a life script, we wanted to establish a purely empirical measure that would test those theoretical ideas and note exceptions from them. We consider the first three measures of Table 1, *other*, *shared*, and *story typicality*, as measures of the conventionality of the life story to the life script because they compare life story data from the individual participant to the life script of the group or of the participant.

Results

The life script—In order to form a life script from the seven life script events generated by each of the 100 subjects, we began by using the 35 life script categories from the published Danish life script (Berntsen & Rubin, 2004, Table 3) as they were well defined categories into which most of our responses fit easily. We were sensitive to, but did not need to change to similar but new categories because of cultural differences, probably because most of the Danish categories translated easily and unambiguously to U.S.A. categories. New categories, however, were created whenever a generated event did not fit into existing categories. As with the Danish life script, we tried to keep categories as close as possible to subjects’ original responses. One author (MH) and a research assistant independently scored

all the data; discrepancies were resolved by a third judge. Following our earlier work, we then limited events in the life script to those mentioned by four or more participants. Using this system, there was initial disagreement on 55 of the generated events (8%), which were resolved by a third judge. Life story events were scored using the same system, which resulted in 70 disagreements (10%).

Table 2 presents the life script data. Consistent with our predictions about the life script and earlier work, the events in the life script in Table 2 are mostly positive (4 of 24 events are negative), and the four negative events have much less agreement on when they would occur in a script, with standard deviations in the age at which the events occur of 16.84, 14.52, 7.18, and 6.57 years. The standard deviations for the 20 positive events are much smaller, with only one being larger than that of the smallest negative event. In addition, there are many events from late adolescence and early adulthood, with 6 of the 24 events below age 10, 2 events near age 13, 11 events between ages 15 and 30, no events between 31 and 48, and 5 events over age 48. Using the 75-year period from the youngest to the oldest event in Table 2 as the lifespan, 46% of the events (i.e., 11/24) occur in 20% (i.e., 15/75) of the lifespan.

There is also good agreement with earlier work. All events in Table 2 appear in the Danish norms (Berntsen & Rubin, 2004, Table 3) except: high school (which had a frequency of 46), begin driving (13), own birth (18), and first kiss (4). The first two may represent real cultural differences as high school does not directly translate to the Danish educational system and driving is less important in Danish cities. Events occurring only in the Danish life script, with their frequencies, are: divorce (12), siblings (12), first friend (11), long trip (10), serious disease (9), major achievement (8), partner's death (6), having peers (5), first rejection (4), the "right" job (4), first contact (4), baptism (4), and earn first money (4). The long-trip category refers to the year or so that students in Denmark often take off from studies to travel before starting university. Some of these differences appear to be due to cultural difference in the prevalence of certain events (e.g., long trip, baptism) and in the existence of certain categories of events (e.g., earn first money), others may be due to the eight year age difference in the two samples which provides the Danish sample with more life experiences (e.g., serious disease, partner's death), and some may be due to the Danish sample being all psychology majors, exposed to more and to different psychological theories of development than their American counterparts who were taking their first psychology course (e.g., first contact). Nonetheless, the differences are fairly minor, and are usually in low frequency events.

For the 21 events that occur in both the Danish life script from Berntsen and Rubin (2004, Table 3) and the U.S.A. life script shown in Table 2, the correlations between the frequency with which they were listed, prevalence, importance, age at event, and valence are .82, .88, .72, .99, and .94, respectively (all $p < .0005$ under the assumption that the 21 events are independent observations).

There were 100 participants in the U.S.A. sample used here and 103 in the Danish comparison norms, so one might expect a slightly greater chance of events occurring four or more times in the Danish sample. However, there were 35 life script events (not counting "other") in the Danish life script and only 24 in the U.S.A. life script. For comparison, the equivalent number for the Turkish sample was 27 (Erdoğan et al. 2008). The most straightforward explanation of these cultural differences in number of life script events seems to be differences in cultural homogeneity.

In order to examine whether the distribution of frequently mentioned life script events differed between the three cultures, we plotted the number of times each of the most

frequent events were mentioned. To do so we ignored whether the events were the same across the three cultures and only counted how frequently they were mentioned (thus, marriage is the most frequent event in the American plot, whereas having children is the top event in the Danish plot). Because there were 100, 103, and 95 participants who completed the task in the three samples, we converted to percent of people reporting each event. As shown in Figure 1, the three samples show a very similar pattern regarding the frequency with which the events were mentioned, one similar to other plots of the frequency of occurrences (Anderson, 1990; Carroll, 1967). Thus, the percent of people reporting each event dropped at a similar rate with increasing rank order of frequency of response. This supports the idea of a similar underlying cognitive structure in the three cultures in spite of the differences concerning event content and number of included events.

The life story—The most frequent event category for the life story was the category *other*. Of the 657 valid vases, 358 (54%) were scored as other. Thus, roughly a half of the recorded life story events did not match a life script category. Among the 299 records (46%) that did match, the following events were mentioned most frequently: college (78% of the participants), others' death (26%), falling in love (25%), beginning school (20%), and go to school (18%). These categories reflect that the great majority of the participants were in their youth and had not yet encountered many of the culturally expected events in the life script. Frequently mentioned *other* events were moving (35%), a major achievement (31%), playing a sport (22%), interactions with siblings (22%), and taking a long trip (19%). All of these events, except playing a sport and moving, were part of the Danish life script (Berntsen and Rubin, 2004), but not the American one.

Individual differences measures—Table 3 presents the means and standard deviations for all individual differences measures used in Study 1. Table 4 presents the correlations among all individual differences measures. There were correlations of .3 (all $ps < .01$) or larger (in the expected directions) among the three measures of conventionality of the life story to the life script (i.e., life story typicality, shared, and other) and between the life script and life story valence. As expected from the literature, there are substantial correlations among the BDI, PCL, and CES. Beyond these correlations, which were expected on methodological grounds, there were few other significant correlations. In particular, our predictions about the three measures of conventionality of the life story to the life script and life story prevalence correlating with the BDI, and PCL measures of psychological distress failed.

We realized that one reason our key predictions about individual differences failed even though the measure acted as expected in terms of the correlations observed earlier in the literature, and expected on methodological grounds, was that our participants were not old enough to have personally experienced, or failed to experience at the time described in the life script, many of the life script events. Moreover, the ones they could have experienced were psychologically fairly neutral. Thus, according to the age norms in Table 2, among the most frequent ten events in the life script that they could have experienced were: begin talking, begin walking, begin school, go to school, high school, and college, but not first job, marriage, having children, and parents' death. In Study 2, we therefore tested slightly older participants. Of the 100 participants in Study 1, only 1 was older than 21, whereas the youngest participant in Study 2 was 21.

Study 2

Method

Participants—One hundred and eleven Danish psychology majors at the University of Aarhus participated as part of a teaching course (92 females; mean age = 26.4 years, age range 21-49, **SD** = 5.1).

Materials and procedure—Study 2 was the same as Study 1 with the following exceptions. The order in which participants generated seven events that would go into a life script and seven events that would go into their life story was counter balanced, which allows us to examine the effects of not counter balancing in Study 1. The World Assumption Scale (WAS; Janoff-Bulman, 1988) was added. Five items revised from the CES (Berntsen & Rubin, 2006) were used. The items, which were answered on a five point scale (1 = totally disagree; 5 = totally agree) were: (1) I feel that a stressful event from my past has become a central part of my identity. (2) A stressful event from the past has become a central part of my life story. (3) A stressful event from the past has become a reference point for the way I understand myself and the world. (4) A stressful event from the past has become a reference point for the way I understand new experiences. (5) I automatically perceive connections and similarities between experiences in my current life and a stressful event from the past (1 = never; 5 = very often). A checklist of traumatic events was also included. The measures of life story conventionality to the life script based on the match between life story event and the life script were generated for each participant in identical fashion to Study 1 except that they were calculated on the 36 life script events that were reported by Berntsen and Rubin (2004).

Procedure—Participants were tested in a group setting and went through the tasks in the booklet at their own pace. After the booklets were completed, participants were instructed to classify their life script events according to the 36 event categories (including “other”) presented by Berntsen and Rubin (2004, Table 3). The content of each of these categories was carefully explained by the experimenter. After each description, participants were asked to look through the seven events that they had generated and indicate if any of these events corresponded to the described category. The same procedure was used for the seven life story events.

Results

No differences were observed regarding the order of the presentation of the life story and life script measures (all $ps > .1$) for which reason the data were collapsed across the two conditions. First, we compare the present findings on the life script to our previous work with a Danish sample (Berntsen and Rubin, 2004). Second, we examine which events were most frequently nominated as central to the personal life story. Third, we correlate measures of conventionality and valence of the life script and life story with one another and with measures of depression and posttraumatic stress reactions.

The life script—The 35 life script events that were reported by Berntsen and Rubin (2004) were all mentioned by one or more participants in the present study, and 33 were mentioned by 4 or more. The frequencies with which each event category was endorsed correlated highly with the frequencies reported by Berntsen and Rubin (2004) ($r(33) = .96, p < .0001$ under the assumption that the 35 categories are independent observations). The top ten event categories (with percentage of participants mentioning the event) were: having children (89%), marriage (74%), college (56%), begin school (51%), fall in love (42%), death of parents (32%), retirement (31%), begin daycare (24%), others' death (22%) and go to school (22%). These ten events were also the ten most frequently reported events in Berntsen and

Rubin's (2004) study, except for the events *begin daycare* and *go to school*, which were number 11 and 16, respectively, in the frequency ranking reported by Berntsen and Rubin (2004).

High correlations were also found between mean ratings for the events reported by Berntsen and Rubin (2004, Table 3) and mean ratings of the events in the present study on prevalence ($r(33) = .82, p < .0001$), importance ($r(33) = .72, p < .0001$), valence ($r(33) = .93, p < .0001$) and expected age ($r(33) = .99, p < .0001$). The same correlations were conducted on only the top ten events in Berntsen and Rubin's (2004, Table 3), for which there were the most data and therefore the most stable estimates. As expected, the correlation coefficients were then higher: .98 (for prevalence) .85 (for importance) .99 (for valence) and 1.00 (for expected age at event). In short, our previous findings regarding life script events and their characteristics were replicated here.

The life story—As in the U.S.A. sample, the most frequent event category for the life story was the category *other*. Of the 776 valid vases, 234 (30%) were scored as other. Thus, roughly a third of the recorded life story events did not match a life script category, according to the participants' own assessments. At the same time, it is noteworthy that 542 records (70%) in fact did match, among these the following ten events were mentioned most frequently: college (74% of the participants), long trip (64%), fall in love (54%), leave home (35%), go to school (26%), marriage (25%), others' death (25%), first rejection (19%), having children (18%), and begin school (15%). These categories, though drawn from the life script, clearly reflect that the great majority of the participants were in their youth and had not yet encountered many of the culturally expected events in the life script. On the other hand, they had generally encountered more life script events than the American sample in Study 1. However, in the present sample, no relationship was found between the participants' age and the number of life story events overlapping with life script events.

Individual differences measures—Table 3 presents the means and standard deviations for all individual differences measures used in Study 2. Table 5 presents the correlations among all individual differences measures. As in Study 1, there were correlations of .3 (all $ps < .01$) or larger among the three measures of conventionality of the life story to the life script (i.e., life story typicality, shared, and other) and between the life script and life story valence, and substantial correlations among the BDI, PCL, and CES and of these three measures with the WAS Self, but not the WAS Benevolence and WAS Meaningfulness. In contrast to Study 1, our predictions about the three measures of conventionality of the life story to the life script and life story prevalence correlating with the BDI, and PCL measures of psychological distress were generally confirmed. Also compared to Study 1, most correlations with measures based on the life story were substantially higher. Correlations with measures based on the life script were not higher; in general we expected fewer significant correlations with the life script, which should vary less across individuals because it is more of a cultural norm and that was confirmed. Life story valence also correlated with all three measures of the WAS.

In summary, the present study provided evidence that the life script described by Berntsen and Rubin (2004) show a high level of stability across two different samples of Danish psychology majors. The study also showed a substantial overlap between events generated in the life story task and events in the life script (that were generated by a different sample of students, Berntsen & Rubin, 2004) suggesting again that knowledge of the standard life script affected the selection of events for the life story. Finally we found negative correlations between measures of emotional distress and measures of the valence of the life story and its correspondence to the life script.

General Discussion

We had four main goals. First, we measured the life script in a sample of U.S.A. undergraduates, providing norms more suitable for work in the U.S.A. Using the U.S.A. sample, we could make preliminary investigation of differences in the life script in our two populations. Given the similarities in the cultures of Denmark and the U.S.A., we expected and found very similar life scripts with minor, reasonable differences with regard to the type of events included. Notably, as in previous work, a clear positive bias was seen together with a dominance of events estimated to happen in the second and third decades of life (Berntsen & Rubin, 2004; Collins et al., 2007; Erdoğan et al., 2008)

One striking difference that bears further study is the greater number of events mentioned by 4 or more Danes as compared to the U.S.A. sample – i.e., 35 - 33 in Berntsen and Rubin (2004) and Study 2, respectively, versus 24 in the U.S.A. sample in Study 1. Also in the study by Erdoğan et al., (2008), the Turkish participants in the equivalent newborn infant condition generated only 27 life script events. Because a comparable number of students participated in these studies, the difference in the number of events mentioned by four participants and more is noteworthy and may reflect more cultural homogeneity in the Danish sample. In the future, it would be interesting to examine the shape of the distribution of the frequency of life script and life story events as a function of the diversity of the group or culture being tested over a wide range of cultures.

Second, we wanted to measure the stability of the life script by testing it in a second group of Danish undergraduates. Consistent with the idea that life script is stable semantic knowledge, we found extremely good agreement between two samples of Danish undergraduates tested one year apart. Third, we examined the overlap between the events generated in the life story and life script tasks. In both the Danish and the U.S.A. sample, we found a considerable overlap with 70% and 46% of the life story events classified as fitting a life script event category. This suggests that knowledge of the normative life greatly affected which type of events was recorded in the life story task, consistent with findings in older samples (Glück & Bluck, 2007, Thomsen & Berntsen, 2008). The greater overlap in the Danish group may reflect two things. One possible explanation is the older age of the Danish participants and thus their greater likelihood of having encountered more life-script events than the U.S.A. participants. The other is the fact that the Danes had 35 events in their life script against 24 in the American sample, which logically would contribute to a higher overlap in the Danish group, other things being equal. Thus, also here, less homogeneity concerning life script events in the U.S.A. sample may be a possible explanation for the findings.

Fourth, we investigated individual differences in the life script and life story under the assumption that if a person has a view of the life script or a life story that varies greatly from the life script of their culture then they may be less well tuned to the expectations of the culture in which they live, which may be associated with emotional distress. In addition, we measured the emotional valence of items in the life story and life script in order to see if a generally positive or negative view of the life lived or the normative life is related to other factors. Our prediction that conventionality of the life story would be negatively correlated with measures of emotional distress and with having a traumatic event central to one's life was only supported in the Danish sample. A simple explanation would be that the Danish participants were older, thus more variability would be seen on the life story and its agreement with the life script in this sample than in the U.S.A. sample. However, the reported correlations were not higher among the older than younger Danes, which seems to be at odds with this explanation. Another possible explanation, extending the findings discussed above, is that the Danish culture may be more homogeneous with regard to shared

life expectations for which reason deviations from the life script may be associated with greater social consequences and thus more emotional distress for the individuals concerned. Clearly, this is an issue that calls for further investigations.

Overall, our findings for the life script and life story replicate our earlier work and extend it in ways predicted by our initial theoretical claims about the life script and its role in the retrieval of autobiographical memories. In addition, it raises important questions for future research, notably cultural diversity in relation to the number of life script events agreed upon within a given sample and its potential implications for the diversity of life stories generated within the same culture. In other words, it appears that the number of shared life script events generated within a given group might be used as a measure of the cultural homogeneity. The average percentage of life story events that overlaps with the cultural life script might yield a related measure for diversity. Clearly, these are possibilities that need to be bolstered by more evidence. Nonetheless, they appear to suggest important avenues of future investigation.

Although theorists of autobiographical memory and life story have mentioned that knowledge of culturally expected events is critical for the organization of life stories (e.g., Habermas & Bluck, 2000; MacAdams, 2001), life scripts have only recently become a subject of systematic quantitative empirical studies in psychology (e.g., Berntsen & Rubin, 2004; Habermas, 2007; Rubin & Berntsen, 2003; Bohn & Berntsen, in press, Collins et al., 2007; Erdoğan et al., 2008). As we have shown here, life scripts are important for the understanding of life stories and the psychological processes involved in their construction. Although we agree that the idea of a normal biography has been challenged during the last three or four decades, leaving each individual with a larger number of personal choices and with fewer cultural constraints than previously (Ziehe & Staubenrauch, 1982), we have shown here that people generally agree on what a normal biography should contain. Moreover, people use such life scripts as frameworks for the way they recall important events from their personal lives. The degree to which the individual life story deviates from or is consistent with life script norms may be an important way of expressing one's identification with the culture in which one is situated. Individual differences in life story and life script may therefore be relevant in a number of fields, including studies of migration and immigration, successful aging or identity formation in youth.

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References

- Abelson RP. Psychological status of the script concept. *American Psychologist* 1981;36:715–729.
- Anderson, JR. *The adaptive character of thought*. Erlbaum; Hillsdale, N J: 1990.
- Beck, AT.; Steer, RA.; Brown, GK. *Manual for the Beck Depression Inventory-II*. Psychological Corporation; San Antonio, TX: 1996.
- Berntsen D, Jacobsen AS. Involuntary (spontaneous) mental time travel into the past and future. *Consciousness & Cognition*. in press.
- Berntsen D, Rubin DC. Emotionally charged autobiographical memories across the life span: The recall of happy, sad, traumatic, and involuntary memories. *Psychology and Aging* 2002;17:636–652. [PubMed: 12507360]
- Berntsen D, Rubin DC. Cultural life scripts structure recall from autobiographical memory. *Memory & Cognition* 2004;32:427–442.

- Berntsen D, Rubin DC. The centrality of event scale: A measure of integrating a trauma into one's identity and its relation to post-traumatic stress disorder symptoms. *Behaviour Research and Therapy* 2006;44:219–231. [PubMed: 16389062]
- Berntsen D, Rubin DC. When a Trauma Becomes a Key to Identity: Enhanced Integration of Trauma Memories Predicts Posttraumatic Stress Disorder Symptoms. *Applied Cognitive Psychology*. in press.
- Blanchard EB, Jones-Alexander J, Buckley TC, Foneris CA. Psychometric properties of the PTSD checklist (PCL). *Behaviour, Research and Therapy* 1996;34:669–673. [PubMed: 8870294]
- Bohn A, Berntsen D. Life Story Development in Childhood: The Development of Life Story Abilities and the Acquisition of Cultural Life Scripts from Late Middle Childhood to Adolescence. *Developmental Psychology* 2008;44:1135–1137. [PubMed: 18605840]
- Carroll, JB. On sampling from a lognormal model of word frequency distribution. In: Kucera, H.; Francis, W., editors. *computational analysis of present-day American English*. Brown University Press; Providence: 1967. R.11967
- Collins KA, Pillemer DB, Ivcevic Z, Gooze RA. Cultural scripts guide recall of intensely positive life events. *Memory and Cognition* 2007;35(4):651–659.
- Conway MA. Memory and the self. *Journal of Memory and Language* 2005;53:594–628.
- Conway MA, Pleydell-Pearce CW. The construction of autobiographical memories in the self-memory system. *Psychological Review* 2000;107:261–288. [PubMed: 10789197]
- Erdoğan A, Baran B, Avlar B, Çağlar Taş A, Tekcan AI. On the persistence of positive events in life scripts. *Applied Cognitive Psychology* 2008;22(1):95–112.
- Foner, A.; Kertzer, DI. Intrinsic and extrinsic sources of change in life-course transitions. In: Riley, MW., editor. *Aging from birth to death. Interdisciplinary perspectives*. Westview Press; Boulder: 1979.
- Fry, CL. Cultural dimensions of age: A multidimensional scaling. In: Fry, CL., editor. *Aging in culture and society. Comparative viewpoints and strategies*. Praeger; New York: 1980. p. 42-63.
- Fry CL. Temporal and status dimensions of life cycles. *International Journal of Aging and Human Development* 1983;17:281–300. [PubMed: 6671823]
- Janoff-Bulman R. Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition* 1988;7:113–136.
- Glück J, Bluck S. Looking back across the life span: A life story account of the reminiscence bump. *Memory & Cognition* 2007;35:1928–1939.
- Giddens, A. *Modernity and self-identity. Self and society on the late modern age*. Polity Press; Cambridge: 1991.
- Habermas T. How to tell a life: The development of the cultural concept of biography. *Journal of Cognition and Development* 2007;8:1–31.
- Habermas T, Bluck S. Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin* 2000;126:748–769. [PubMed: 10989622]
- Habermas T, Ehler-Lerche S, de Silveira C. The development of the temporal macrostructure of life narratives across adolescence: Beginnings, linear narrative forms, and endings. *Journal of Personality*. in press.
- Habermas T, Ott L-M, Schubert M, Schneider B, Pate A. Stuck in the past. Negative bias, explanatory style, temporal order, and evaluative perspective in life narratives of clinically depressed individuals. *Depression and Anxiety*. in press.
- Luborsky MR. The romance with personal meaning in gerontology: Cultural aspects of life themes. *The Gerontologist* 1993;33:445–452. [PubMed: 8375672]
- McAdams DP. What do we know when we know a person? *Journal of Personality* 1995;63:365–396.
- McAdams DP. The psychology of life stories. *Review of General Psychology* 2001;5:100–122.
- Neugarten, BL. Adult personality: Toward a psychology of the life cycle. In: Neugarten, BL., editor. *Middle age and aging. A reader in social psychology*. The University of Chicago Press; Chicago: 1968. p. 137-147.
- Neugarten, BL.; Hägestad, GO. Age and the life course. In: Binstock, R.; Shanas, E., editors. *Handbook of aging and social sciences*. Van Nostrand Reinhold; New York: 1976. p. 35-55.

- Neugarten BL, Moore JW, Lowe JC. Age norms, age constraints, and adult socialization. *The American Journal of Sociology* 1965;70:710–717.
- Rubin DC, Berntsen D. Life scripts help to maintain autobiographical memories of highly positive, but not highly negative, events. *Memory & Cognition* 2003;31:1–14.
- Rubin, DC.; Wetzler, SE.; Nebes, RD. Autobiographical memory across the adult lifespan. In: Rubin, DC., editor. *Autobiographical memory*. Cambridge University Press; New York: 1986. p. 202-221.
- Schank, RC. *Dynamic memory*. Cambridge University Press; New York: 1982.
- Schank, RC. *Dynamic memory revisited*. Cambridge University Press; New York: 1999.
- Schank, RC.; Abelson, RP. Scripts, plan, and knowledge. In: Johnson-Laird, PN.; Wason, PC., editors. *Thinking. Readings in cognitive science*. Cambridge University Press; Cambridge: 1977. p. 421-435.
- Settersten RA, Hägestad GO. What's the latest? Cultural age deadlines for family transitions. *The Gerontologist* 1996a;36:178–188. [PubMed: 8920087]
- Settersten RA, Hägestad GO. What's the latest? II. Cultural age deadlines for educational and work transitions. *The Gerontologist* 1996b;36:602–613. [PubMed: 8942104]
- Shai D. Working women/cloistered men: A family development approach to marriage arrangements among ultra-orthodox Jews. *Journal of Comparative Family Studies* 2002;33:97–115.
- Thomsen DK, Berntsen D. The Cultural Life Script and Life Story Chapters Contribute to the Reminiscence Bump. *Memory* 2008;16:420–435. [PubMed: 18432486]
- Ziehe, T.; Stubenrauch, H. *Plädoyer für ungewöhnliches Lernen. Ideen zur Jugendsituation*. Rowohlt; Reinbek: 1982.
- Weathers FW, Litz BT, Huska JA, Keane TM. The PTSD checklist (PCL). Unpublished scale available from the National Center for PTSD. 1994
- Williams, JMG. Depression and the specificity of autobiographical memory. In: Rubin, DC., editor. *Remembering our past: Studies in autobiographical remembering*. Cambridge University Press; Cambridge: 1996. p. 244-267.

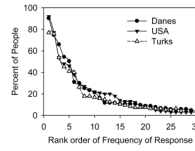


Figure 1. Life script events from three cultures are rank ordered from most to least mentioned and the most frequent 29 events in each culture are plotted on the horizontal axis. On the vertical axis is the percent of people who mentioned each of the most frequently mentioned events.

Table 1

An Overview of Individual Differences Measures Derived From the Life Story and Life Script Data

Term	Definition
Other	The number of events generated for the participant's life story that are classified as "other" in the life-script.
Shared	The number of events that are common to a participant's life story and life script (event classified as other are not counted). This score is based on a comparison of each participant's responses to both tasks, not to norms.
Story and script typicality	The mean score of the lifescrpt frequency norms from Table 2 for Study 1 and Berntsen and Rubin, 2004, Table 3 for Study 2 for each participant's seven life story and life script events.
Story and script prevalence	The average prevalence ratings given by each participant to events in his or her life story and life script.
Story and script valence	The average valence ratings given by each participant to events in his or her life story and life script.

Table 2

Events Mentioned More Than Three Times and Sum of Records, Estimated Life Prevalence, Importance, Age at Event, and Valence

Event	Records Sum	Prevalence			Importance			Age at Event			Valence		
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Marriage	92	79.93	13.16	6.16	1.05	26.35	2.52	2.70	0.55				
Having children	77	70.51	16.59	6.47	0.90	29.36	6.86	2.74	0.55				
College	54	60.35	17.50	5.96	0.85	19.19	1.88	2.17	0.97				
Begin school	48	95.04	7.98	5.83	1.15	5.16	0.85	1.19	1.41				
High school	46	78.00	10.05	5.76	0.99	17.49	1.89	2.09	0.98				
First job	38	91.21	10.01	5.89	1.23	21.99	3.19	1.24	1.06				
Begin talking	29	98.48	3.79	6.59	0.82	1.79	0.90	2.38	1.01				
Begin walking	27	98.37	3.17	6.15	1.41	1.33	0.60	2.15	1.20				
Own death	24	100.00	0.00	6.13	1.75	74.38	14.52	-1.75	1.67				
Go to school	22	87.64	19.33	6.50	0.67	7.43	4.98	1.77	1.19				
Parents' death	21	93.67	6.94	6.60	0.68	49.05	7.18	-2.90	0.30				
Others' death	20	92.50	14.79	6.20	0.89	29.63	16.84	-2.58	0.61				
Retirement	20	87.55	9.21	4.90	1.33	64.90	3.43	1.55	1.10				
Own birth	18	99.61	1.65	7.00	0.00	0.06	0.24	1.39	1.50				
Fall in love	14	94.00	6.82	6.07	1.49	17.36	5.61	2.36	1.01				
Begin driving	13	85.92	8.82	4.77	1.42	16.54	1.39	2.08	1.04				
Grandchildren	13	55.00	19.04	5.38	1.45	61.92	5.60	2.54	0.66				
Settle on career	12	77.08	24.07	5.58	0.79	24.75	3.49	1.25	0.97				
Puberty	9	98.67	3.28	5.89	1.27	13.33	1.41	0.00	1.50				
First sex	9	96.33	6.28	4.78	1.39	17.17	1.17	1.56	1.33				
Leave home	8	85.63	18.53	5.63	1.19	19.50	3.20	1.63	1.06				
Begin daycare	5	84.60	15.81	5.40	0.55	4.70	0.67	2.00	1.22				
Empty nest	4	67.50	11.90	5.25	0.50	50.63	6.57	-0.75	1.26				
First kiss	4	99.25	0.50	5.75	0.96	12.75	0.96	2.50	0.58				
Other	71												

Table 3

Means and Standard Deviations of Measures of Conventionality of Life Story Events, Valen Depression, Posttraumatic Stress Reactions, Centrality of Event, and Basic Assumptions in Studies 1 and 2

Measure	Study 1		Study 2	
	Mean	SD	Mean	SD
Other	3.76	1.40	2.11	1.29
Shared	1.79	1.11	1.97	1.19
Story Typical	25.48	7.61	22.80	9.58
Story Prevalence	53.48	18.96	53.31	18.28
Story Valence	1.27	0.99	1.26	0.86
Script Typical	40.29	8.78	40.43	8.65
Script Prevalence	82.70	8.87	85.79	8.00
Script Valence	1.50	0.76	1.21	0.70
BDI	6.43	4.78	5.75	6.91
PCL	27.72	8.58	25.31	9.01
CES	2.98	0.99	2.75	1.23
WAS Benevolence	-	-	38.55	5.61
WAS Meaningful	-	-	36.25	6.85
WAS Self	-	-	57.79	6.59

Table 4
 Correlations between Measures of Conventionality of Life Story Events, Valence, Depression, Posttraumatic Stress Reactions, and Centrality of Event in Study 1

	Life Script		Life Story		Story/Script		Std. Tests	
	Typical	Valence	Typical	Valence	Other	Shared	BDI	PCL
Script Prevalence	-.20							
Script Valence	.34***	-.21*						
Story Typical	.31**	-.04	.23*					
Story Prevalence	.05	.11	.03	.05				
Story Valence	.16	.07	.37***	.02	.00			
Other	-.20*	.05	-.08	-.39***	-.49***	.03		
Shared	.23*	-.13	.20*	.32***	.36***	.12	-.60***	
BDI	-.06	.01	-.15	-.07	.05	-.21*	-.07	
PCL	-.33***	.08	-.31**	-.16	.02	-.26**	.06	-.09
CES	-.12	.05	-.21*	-.09	-.05	-.26**	.11	-.13
								.42***
								.52***

Note:

* p<.05

** p<.01

*** p<.001

Table 5

Correlations between Measures of Conventionality of Life Story Events, Valence, Depression, Posttraumatic Stress Reactions, Centrality of Event, and Basic Assumptions in Study 2

	Life Script		Life Story		Story/Script		Standardized Tests				
	Typical	Valence	Typical	Valence	Other	Shared	BDI	PCL	CES	WAS-BN	WAS-MF
Script Prevalence	.14										
Script Valence	.22*	.02									
Story Typical	.15	-.12	.17								
Story Prevalence	.28*	-.06	.10	.34***							
Story Valence	.23*	.01	.39***	.34***	.11						
Other	-.11	.16	-.10	-.58***	-.31***	-.37***					
Shared	.21*	-.13	.29**	.56***	.28**	.26**	-.43***				
BDI	-.20*	.09	-.10	-.16	-.36***	-.27**	.21*	-.23*			
PCL	-.24*	.15	.13	-.33***	-.37***	-.39***	.31**	-.33***	.74***		
CES	-.21*	-.03	.09	-.20*	-.11	-.26**	.15	-.14	.34***	.47***	
WAS Benevolence	.08	.20*	.23*	.13	.21*	.38***	-.19	.13	-.27**	-.37***	-.06
WAS Meaningful	.18	-.19	.08	.25*	.02	.28**	-.16	.07	-.16	-.08	.03
WAS Self	.02	-.08	.04	.17	.08	.37***	-.05	.23*	-.38***	-.46***	-.28**
											.18

Note:

* p<.05

** p<.01

*** p<.001