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Czech and Slovak Life Scripts: The Rare Case of Two Countries that Used to Be One

Lenka Štěpánková¹, Dita Kadlčíková², Alejandra Zaragoza Scherman^{3a}

¹ Institute of Lifelong Learning, Mendel University in Brno

² Department of Psychology, Faculty of Arts, Masaryk University

³ Center on Autobiographical Memory Research (CON AMORE), Aarhus University

Author Note

The authors thank the Institute of Lifelong Learning, Mendel University in Brno for financial support. Correspondence concerning this article should be addressed to Lenka Štěpánková.

Mailing address: dr. Lenka Štěpánková, VÚ ICV, Mendelova univerzita v Brně, Zemědělská 5, 613 00, Brno, Czech Republic, E-mail: lenka.stepankova@mendelu.cz

^a This name uses Spanish naming customs; paternal last name is *Zaragoza* and maternal last name is *Scherman*. Please, use *Zaragoza Scherman* as the last name for citations.

Abstract

In this study, we examined cultural life scripts in two countries, the Czech Republic and Slovakia. The cultural life script is semantic knowledge about culturally shared expectations regarding the order and timing of important life events during an idealized life course. For many decades, Slovakia and the Czech Republic were one country: Czechoslovakia. After a regime change in 1989 and the separation of the Czech Republic and Slovakia in 1993, their two cultures have been evolving and changing independently from one another, making these countries interesting for examining life scripts. We found that the cultural life scripts provided by Slovak and Czech participants shared 25 event categories, representing 89.3% of event categories in the Czech sample and 80.6% of event categories in the Slovak sample (including the category *Other*). However, participants also reported unique event categories to each culture (11.2% of unique event categories in the Czech sample and 20% in the Slovak sample), reflecting the specific cultural characteristics of these two separate countries. Reported events were listed in the same order they are expected to happen during the life span, were mostly positive, and showed a lifespan distribution consistent with the reminiscence bump. Participants showed higher agreement in the age estimates of positive events, compared to neutral and negative ones. Events were mostly social, in contrast to biological events. All these findings are consistent with the life script literature.

Keywords: cultural life scripts, positivity bias in reminiscence bump, Czechoslovakia, Czech Republic, Slovakia

Czech and Slovak Life Scripts: The Rare Case of Two Countries that Used to Be One

Remembering events from our lives makes us who we are as these memories directly shape our identity, our self. From memories of important life events, such as our wedding or our first day at school, to those of more ordinary everyday events, like having lunch with a colleague, all these memories represent a kind of memory known as autobiographical memory. It is the system of human memory that processes memories of personally relevant events, which are tied to a specific time and place (Pathman et al., 2011).

Research from the last decade suggests that there are cultural influences on remembering one's life (see Wang, 2016, for a review). For example, Berntsen and Rubin (2004) introduced the *cultural life script theory* to attempt to explain a memory phenomenon known as *the reminiscence bump*, which we describe further in a later section. According to this theory, the cultural life script is semantic information about commonly shared expectations regarding the ideal timing and order of important life events in a certain culture (Berntsen & Rubin, 2004). Research has confirmed that one of the most important properties of the life script is that they guide recall of autobiographical memories of important life events in different cultures (Zaragoza Scherman et al., 2017).

The present study examines life scripts in the Czech Republic and Slovakia. These two countries share a common history; therefore some specific cultural differences and similarities can be observed. Czech Republic and Slovakia are both located in Central Europe with a population of 10.7 and 5.5 million respectively (Czech Statistical Office, 2019; Statistical Office of the Slovak Republic, 2019). For decades, they were one country: Czechoslovakia. After WWI, in 1918, Czechoslovakia was established as an independent country from the Austro-Hungarian Empire. Its separation in 1993 was a direct consequence of the 1989 Velvet Revolution, which marked the end of socialist regime in Czechoslovakia (Elster, 1995). The

separation of the countries is still a controversial topic today, as many Slovak and Czech residents do not agree with the separation, which was decided by the government and not by a referendum. The cultures of these two countries are inseparable, even though they have their own unique characteristics. The decades between wars, WWI and WWII, when the countries co-existed together, was a peaceful period. After WWII and the socialist occupation of the armies of the Warsaw Pact countries led by the Soviet Union army in 1968, the cultures started to develop together, because the regime made people feel like they had something in common. In other words, the cultural similarities were formed during the socialist era, between 1948 and 1989, while Czech Republic and Slovakia were one country and shared the same oppressive regime. The differences in cultures could be traced back to the Austro-Hungarian Empire (before WWI) when the Moravia and Bohemia (now the Czech Republic) were part of the Austrian part of the Empire, whereas the Slovak lands were part of the Hungarian part of the Empire, which suggests (to some extent) separate formation of cultures.

The most salient similarity between these two cultures is their languages. The Slovak and Czech languages are both Slavic languages. As such, they share a considerable amount of syntactic rules and vocabulary, which ensures almost perfect understanding between Slovaks and Czechs. Folklore traditions, even though different in various parts of the countries, might appear very similar to a foreign observer. The most robust difference between the cultures is the amount of actively religious people, although the religious tradition in both countries is catholic. In 2011, 75.97% of Slovaks described themselves as religious (Juhaščíková et al., 2014) whereas this was the case for only 14.02% of Czechs (Czech Statistical Office, 2014). The number of religious people in the population is decreasing, especially among younger generations in both Slovakia and the Czech Republic. The decrease of religious people in

Slovakia, between the years 2001 and 2011, was around 8.08% and in the Czech Republic around 18.18% (Czech Statistical Office, 2014).

Kolman et al. (2003) used Hofstede's dimensions (individualism vs. collectivism, uncertainty avoidance, power distance, and masculinity-femininity) to describe the cultural differences between the Czech Republic and Slovakia. They found that Slovakia is a country with a significantly larger power distance than the Czech Republic, even though the Czech Republic would still have a pretty big power distance. Slovakia was found to be extremely masculine compared to the Czech Republic, which could be related to the tendency to form more patriarchal families (Musil, 1993) and has greater uncertainty avoidance.

This very unusual case of cultures separated by a state border but still quite connected by the same history represents a unique opportunity to explore the cultural life scripts of these countries and compare them. There are a few historical examples of countries that were separated or had been a part of a bigger empire and were for some reason (regime change, war, etc.) divided into different countries, such as the violent disintegration of Yugoslavia in early 1990s (Yarashevich & Karneyeva, 2013) or the dissolution of the Soviet Union (Nikolayenko, 2008). The case of Czechoslovakia remains a unique one because the disintegration was peaceful (compared to the Yugoslavian one) and the relationship between the countries and their people are very warm (compared to the complicated relationship between certain post-Soviet Union countries such as Russia and Ukraine; see Kozachenko, 2019). It is very interesting to observe the cultural changes and the differences that arise from the separation. Life script research has not yet been conducted in Central and Eastern European countries and their cultures deserve attention in cross-cultural research.

The Reminiscence Bump

When participants older than 40 years of age are asked to recall and date autobiographical memories of their most important life events, the majority of the events recalled is typically located during late adolescence and early adulthood (15-30 years of age). This phenomenon is known as the reminiscence bump (Rubin et al., 1986). Research has established that most important memories in the bump period are almost exclusively of positive events (*positivity bias*); with negative events being reported more evenly across the life span (Berntsen & Rubin, 2002; Bohn, 2010; Erdoğan et al., 2008; Rubin et al., 2009; Rubin & Berntsen, 2003; Tekcan et al., 2012).

There have been attempts to explain the reminiscence bump from different perspectives (see Koppel & Berntsen, 2015, for a review). The *cognitive account* suggests that late adolescence and young adulthood are periods in life when people experience novel events, such as their first date or college acceptance. These events are less prone to proactive interference due to their novelty (Pillemer, 2001; Robinson, 1992; Rubin et al., 1998). Adolescence and early adulthood are life periods with a considerable amount of change and lots of “firsts” followed by a period of relative stability, which increases accessibility to the events encoded in the earlier life periods. Berntsen and Rubin (2002) argued that Western cultures with a transitional life period between 15 and 30 years of age could show the bump, but that cultures with different transitional periods (earlier or later in life) or people whose life suffers a dramatic change would have the reminiscence bump shift accordingly. This was, in fact, shown in a study on autobiographical memories with immigrants (Schrauf & Rubin, 1998). The cognitive account does not account for such shift nor for the overall positivity of memories located within reminiscence bump, which will be discussed later on.

An alternative explanation of the reminiscence bump is the *identity formation account*. According to this account, identity is formed in adolescence and early adulthood via narratives, leading to the stable self-coherence later in life (Conway, 2005; Conway & Pleydell-Pearce, 2000). As a result, the events occurring during this period are rehearsed more in life narratives, as part of one's identity. However, to create a stable identity and life narrative, both positive and negative events are important; therefore this explanation does not account for the lack of a reminiscence bump for negative events (Berntsen & Rubin, 2002).

Another account trying to explain the reminiscence bump for word-cued memories is the *cognitive abilities account* (Janssen, 2020; Janssen et al., 2015; Janssen & Murre, 2008). This account is based on the notion that the cognitive abilities are at their peak during adolescence and early adulthood; therefore, the majority of autobiographical memories are reported in the bump period. The cognitive abilities account argues that maturation and cognitive development in adolescence and early adulthood can explain the reminiscence bump. The cognitive abilities account could explain the beginning of the bump, which could reflect the improvement of cognitive functions, such a memory and intelligence, in adolescence and young adulthood. However, the development of some cognitive abilities, such as linguistic abilities and crystalized intelligence during lifespan, does not reflect the bump shape, which questions the cognitive abilities account.

Lastly, the *cultural life script account* of the reminiscence bump of the most important autobiographical memories operates within cultural knowledge about the ideal life, which is shared in a specific culture (Berntsen & Rubin, 2004). As mentioned previously, the cultural life script represents semantic knowledge about culturally shared expectations regarding the timing and order of transitional life events in an idealized life course (Berntsen & Rubin, 2002, 2004; Rubin & Berntsen, 2003). It is acquired through family, peers, media, tradition, etc. (Berntsen & Rubin, 2004). The cultural life script contains mostly positive life

events; therefore, this account could explain the lack of reminiscence bump for emotionally negative events (Berntsen & Rubin, 2002).

Cultural Life Scripts

According to Schank and Abelson (1977), a script is a prescriptive timetable that contains a general knowledge structure of consecutive actions contained in a stereotypical episode (such as typical visit to a restaurant or a typical university lecture). The cultural life script theory combined this notion with the anthropological theory of prescriptive timetables (Neugarten et al., 1965), which suggests that each culture has its own norms for typical life events and an age when these events are expected to happen within the life span. As a result, life scripts are considered to be culturally dependent.

Life scripts are stable across age groups and gender in some cultures (Bohn, 2010; Erdoğan et al., 2008; Janssen et al., 2014; Janssen & Rubin, 2011; Tekcan et al., 2012) with only minor differences. For example, in gender-segregated Qatar, the differences between male and female life scripts were more robust, as female participants created more “international” scripts comparable to those from Denmark, Turkey, or USA in comparison with their male counterparts (Ottsen & Berntsen, 2014).

In addition, Janssen and Rubin (2011) did not find any significant differences between participants with different educational background. Cultural life scripts have been examined in different countries, in alphabetical order: Australia (Janssen & Haque, 2018), China (Zaragoza Scherman et al., 2017), Denmark (Berntsen & Rubin, 2004; Bohn, 2010; Zaragoza Scherman et al., 2017), Germany (Hatiboğlu & Habermas, 2016), Greenland (Zaragoza Scherman et al., 2017), Japan (Janssen et al., 2014), Malaysia (Janssen & Haque, 2018), Mexico (Zaragoza Scherman et al., 2017), the Netherlands (Janssen & Rubin, 2011), Qatar (Ottsen & Berntsen, 2014), Turkey (Erdoğan et al., 2008; Hatiboğlu & Habermas, 2016; Tekcan et al., 2012), and the United States (Coleman, 2014; Rubin et al., 2009). These studies

revealed that certain life script event categories (such as events related to family life, education, and work) are shared among cultures unlike the event categories that are culture-specific or country-specific (events related to religion, military service, driver's license, etc.; Hatiboğlu & Habermas, 2016; Janssen et al., 2014; Janssen & Haque, 2018; Ottsen & Berntsen, 2014; Rubin et al., 2009; Zaragoza Scherman, 2013; Zaragoza Scherman et al., 2015, 2017). After comparing the life script event categories between the Danish life script (Berntsen & Rubin, 2004), which was the first one, with life scripts from other countries (Coleman, 2014; Erdoğan et al., 2008; Hatiboğlu & Habermas, 2016; Janssen, 2015; Janssen et al., 2014; Janssen & Haque, 2018; Janssen & Rubin, 2011; Ottsen & Berntsen, 2014; Rubin et al., 2009; Zaragoza Scherman et al., 2017), we found an overlap that ranged from 38.9% to 75%. When comparing the life script event categories between the original Danish life script (Berntsen & Rubin, 2004) and another Danish life script (Zaragoza Scherman et al., 2017), we found an overlap of 77.8%.

Another characteristic of the cultural life script is that the temporal distribution across the life span resembles that of the reminiscence bump. In other words, the majority of the life script events are positive and located in the “bump period”, between the ages of 15 and 30. Negative and neutral events are spread more evenly during the life span. For example, Janssen et al. (2014) reported that in the Japanese life script, 51.9% of all positive events were located in the bump period, compared to 16.5% of negative events and 44% of neutral events. Coleman (2014) reported that in an African American sample, 55.23% of all positive events were located within the bump period, compared to 27.27% of negative events. Janssen and Haque (2018) reported 61.2% of positive events within the bump period compared to 42.7% of negative events and 28.9% of neutral events for a Malaysian sample and similar results for an Australian sample (60.7% of positive events within bump period compared to 31.8% of

negative and 27.8% of neutral events). Janssen and Rubin (2011) reported that in a Dutch sample 55.4% of positive events were located the bump period. Across studies, the percentage of positive events within bump period ranged between 51.9 – 61.2%, while negative and neutral events ranged from 16.5 – 42.7% and 27.8 – 44% respectively.

The positivity bias (i.e., a preference to remember positive life events) in life scripts has been reported in many studies (e. g., Berntsen & Rubin, 2002, 2004; Bohn, 2010; Erdoğan et al., 2008; Ottsen & Berntsen, 2014; Rubin et al., 2009; Tekcan et al., 2012; Zaragoza Scherman et al., 2017). For example, a review indicated that across seven studies, 56 – 81% of life script events were rated as positive, 17 – 37% as negative, and 0 – 9% as neutral (Zaragoza Scherman, 2013). Another study reported as high as 90% of life script events being rated as positive (Zaragoza Scherman et al., 2017).

As proposed by Berntsen and Rubin (2004), the life script consists heavily of social events as opposed to biological ones. This has been confirmed in several studies (see Janssen et al., 2014; Ottsen & Berntsen, 2014; Zaragoza Scherman et al. 2017). For example, Zaragoza Scherman and colleagues (2017) reported that social events amounted to 99% in the Mexican life script, 91% in the Chinese life script, 90% in the Greenlandic life script, and 88% in Danish life script.

Finally, studies have found that events are usually listed in chronological order of their expected occurrence during the life span (see Berntsen and Rubin, 2004; Zaragoza Scherman et al., 2017).

To summarize, the life script is semantic cultural information that influences how individuals recall their life and how they imagine a prototypical life course in their culture. These scripts are stable across age groups, gender (in non gender-segregated cultures) and educational backgrounds. There are shared event categories across cultures, mostly those

dealing with family, work, and education; however, there are also unique event categories typical of each specific culture. Life scripts are overwhelmingly positive and favor positive events expected to happen between 15 and 30 years of age. Life script events are more often social and they are usually nominated in chronological order. Positive events have higher agreement on the expected age at event, compared to neutral and negative events.

The Present Study

The present study examined cultural life scripts in two countries: Czech Republic and Slovakia. These countries were one country (Czechoslovakia) for many years. Initially, the study included two age groups of participants, those who had lived the majority of their lives (most importantly, adolescence and young adulthood) in Czechoslovakia and those who were born and lived in two separate countries (Czech Republic and Slovakia). This study represents a unique opportunity to examine cultural similarities and differences in life scripts in two cultures that used to be one country. Data from the Czech sample were used in the diploma thesis of the second author (Kadlčíková, 2019).

Hypotheses

Hypothesis 1. Common and Unique Events

Even though the Czech Republic and Slovakia have now been separated for more than 26 years and their cultures evolved somewhat separately, they shared the majority of their history as one country. Therefore, based on our examination of the overlap between the original Danish life script (Berntsen & Rubin, 2004) and life scripts found in other countries and other Danish samples (see Introduction), we predicted that the life scripts of the Czech Republic and Slovakia would share at least 78% of their event categories, while the rest of the life script event categories would be unique in both samples.

Hypothesis 2. Chronological Order of Events

In view of the temporal structure of life scripts, we expected that participants would mention events in the same order as they are expected to occur in life. We expected a positive correlation between the order of the reported events and the expected age at event. In other words, earlier nominated events should correspond to earlier ages.

Hypothesis 3. Positivity Bias

Previous research on life scripts has shown, that life scripts are composed of significantly more events rated as positive compared to number of negatively and neutrally rated events, which is why we expected somewhere between 56% and 90% of the life script events would be rated as positive.

Hypothesis 4. Lifespan Distribution of Positive Events

Based on our review of the literature, we expected that between 51 and 61% of all positive events would be expected to occur between the ages of 15 and 30 compared to other decades, mirroring the lifespan distribution of the reminiscence bump. For negative and neutral events, we expected that between 16.5 and 42.7% of all negative and between 27.8 and 44% of all neutral events would be expected to occur within the bump period, showing a more even distribution throughout the life span.

Hypothesis 5. Age Estimates for Positive and Negative Life Script Events

We expected negative correlations between the mean standard deviation of the age estimates and emotional valence ratings; this would indicate a higher agreement in age estimates for positive events than for negative events.

Hypothesis 6. Social vs. Biological Events

Given that life scripts are culturally shared representations of a prototypical life, we expected a higher proportion of social events compared to biological events. Based on the

review of literature we expected that the social events would represent between 88 and 99% of all life script events.

Method

Participants

A total of 224 questionnaires were administered in the Czech sample, but 88 questionnaires were excluded because of missing data. Another six questionnaires were excluded because participants failed to follow instructions. The final sample consisted of 130 Czech participants (81.54% females). The inclusion criterion regarding age was the year of birth between the years 1990 and 1994 (including) or the age of 46 or older at the time of data collection (Spring 2018). The second inclusion criteria required for the participant to have lived most of his/her life in one of the two countries (Czech Republic or Slovakia).

The age criterion was intended to divide the sample into a young and an older group for both countries, but after the preliminary analyses did not reveal significant differences between both age groups in either country, we decided to collapse the data of both age groups in each country. As a result, only the second inclusion criterion remained valid.

In the Czech sample, there was only one participant, who had a different nationality other than Czech, but still fulfilled the inclusion criteria. All the participants listed their permanent residency in the Czech Republic. The mean age of Czech participants was 39.23 years of age ($SD = 18.00$; age range 20 – 78). The mean number of finished years of formal education for the Czech sample was 16.52 ($SD = 2.88$). Half of the participants had a university education (bachelor's, master's or engineering degree), 35.38% finished high school with state exam, the rest was either university postgraduate (9.23%), finished vocational high school (4.62%) or finished elementary school with no further education (0.77%). In the Czech sample, 96.15% of the participants' parents were Czech nationals. In one case, there was one Czech parent and one Slovak parent; in two other cases, both parents

were either Slovak, Polish or Ukrainian, but all participants fulfilled the inclusion criterion of having lived in the Czech Republic for the majority of their lives. As a result, they were not excluded from the study based on their parents' nationality.

A total of 155 Slovak participants started to fill the questionnaires. 70 were excluded due to missing data. Eighty-five participants completed the study (81.18% females). The inclusion criteria were the same as for the Czech participants. There were three participants who listed their nationality as different than Slovak, but they fulfilled the inclusion criterion of having lived in Slovakia for the majority of their lives. As a result, they were not excluded from the sample. The same applies to the participants whose parents were of different nationality than Slovak. In 15.30% of the cases, one parent was Hungarian, while in two cases both parents were Hungarian. The mean age of Slovak participants was 39.19 years ($SD = 15.98$; age range 23 – 73). The mean number of finished years of education for Slovak sample was 17.26 ($SD = 2.44$). Most of the participants had a university education with 84.71% of primary and/or secondary university degree, 12.94% with high school education finished by state exam, and 1.18% of participants with either elementary or postgraduate education.

Statistical analyses did not reveal any differences in age; $t(1372.98) = .05$, $p = 0.96$, or gender $\chi^2(1) = .03$, $p = .86$. The only difference was in the number of years spend in formal education where Slovak participants have spent significantly more years in formal education than Czech participants; $t(1407.70) = -5.40$, $p < .001$.

Data Collection Procedure

The questionnaire was administrated online via SurveyMonkey. Recruitment was via word of mouth in social circles of the authors and via social media. The participants were asked to send the link for the questionnaire to whoever fulfilled the inclusion criteria and could be interested in participating.

After participants were provided with information about the study and the mention of the inclusion criteria, they were asked to sign an informed consent form. Subsequently, participants were asked to answer questions about demographic information, such as gender, age, education, nationality, and parents' nationality.

Materials

The Cultural Life Script Task

The instructions for the life script events were adapted from Berntsen and Rubin (2004), and translated into Czech and Slovak language, using back translation procedures, as outline by Brislin (1970). The instructions in English were as follows:

“This study deals with expectations of an ordinary life course within your culture. Your task is to decide which events are expected to take place in a typical life course. Therefore, you should not think about your own personal life when answering the questions, but about the life of the average person in your culture, a prototypical life. There are no right or wrong answers. We are interested in your intuition about these questions. Imagine a quite ordinary infant (choose a boy or a girl according to your own gender). It cannot be a specific infant that you know, but a prototypical infant in your culture with a quite ordinary life course ahead. Your task is to write down the seven most important events that you imagine are highly likely to take place in this prototypical infant's life. Write the events in the same order as they come to your mind. Give each event a short title that specifies its content”.

After listing the events, participants were asked to estimate the prevalence of each event (among 100 people), the importance of the event (how important the event is, 1 = *not important* to 7 = *of the greatest importance*), the expected age at event (at what age the event

is expected to take place), and the emotional valence of the event (-3 = *very negative* to +3 = *very positive*).

Coding Procedures

Life Script Events

Two independent coders, both native Czech speakers, coded the data. The first author (native Slovak speaker) trained both coders on the coding procedure. The coding procedure was as follows: First, all the events mentioned by participants were categorized based on the categorization used in Berntsen and Rubin (2004, p. 436). Each event category had its number and the events were sorted to the categories. New categories were created for events that were considered not belonging to any of the categories mentioned in Berntsen and Rubin (2004, p. 436). New categories were inspired by categories used in Zaragoza Scherman (2013, pp. 110-112).

The cut-off score for inclusion of the event to the list of life script events as a category was if the event was mentioned by more than 4% of participants. Events mentioned by less than 4% of participants were categorized as *Other*. Both coders coded 100% of the events, the *Other* category was analyzed once more at the very end of coding process to make sure it only contained events mentioned by less than 4% of participants. The overall discrepancies and disagreements were solved by discussion of both coders with the assistance of an independent judge (the first author). The final names of the event categories were a little different from original Danish categories (Berntsen & Rubin, 2004) due to the differences in languages and translation into English.

Social vs. Biological Event Categories

Once the categories had been agreed upon, two independent coders classified the event categories either as “social” or “biological”. Event categories were classified as social when they referred to cultural traditions and social norms (such as *The first job, Marriage,*

etc.), biological event categories were events that referred to developmental stages or an ability learned during a developmental stage (*Begin walking, Childhood, etc.*) The category *Other* was omitted from this analysis. Disagreements were solved by discussion between the coders or by the independent judge.

Results

The results of the study will be presented for the Czech and Slovak samples with the emphasis on the similarities and differences between the samples.

Life Script Events

Following the coding procedure, a life event category was formed when it was mentioned by at least 4% of the participants in the sample. The *Other* category was comprised of events mentioned by less than 4% of the participants. The life script event categories generated by the samples from two different cultures were highly comparable. The Czech sample ($n = 130$) generated a total of 910 events, which were coded into 28 event categories, including the *Other* category (see Table 1). The Slovak sample ($n = 85$) generated a total of 595 events, which were coded into 31 event categories including the *Other* category (see Table 2). The inter-rater agreement was 95.69%.

Considering all event categories, even those that did not reach the cut-off of 4% of mentions, the correlation between proportion of mentions per event category in both samples was high, $r(49) = .96, p < .01$. Even though the categories have different proportion of mentions, the difference was not statistically significant (calculated with *Chi-square test*) for the majority of the categories. The only significant difference was in categories *Baptism* ($\chi^2(2) = 18.34, p < .001$) and *Confirmation* ($\chi^2(2) = 12.30, p < .001$), where even after Bonferroni correction there were significantly more mentions of *Baptism* and *Confirmation* in the Slovak sample. This is consistent with the Slovak sample being more religious. In addition, we plotted the decline of mentions per event category in ranked order of the

categories from the most mentioned event category to the least mentioned for both samples. This showed that the decline is very similar (Figure 1), which is consistent with the cross-cultural studies by Zaragoza Scherman et al. (2017) and Rubin et al. (2009), suggesting a similar pattern in both life scripts.

Common and Unique Events

25 categories were shared among the samples, including the *Other* category. The top 10 mentioned categories were *Having children, Education, Marriage, Job, Elementary school, High school, Retirement/Old age, College, Grandchildren, and Fall in love*. Of these top 10 events that were highly agreed upon between the two samples, the only evident difference is the position of event *Education* which is on the second place in the number of mentions in the Czech sample and the fourth in the Slovak sample.

The unique categories for the Czech sample were *Accident or disease* (6.15% of participants), *Empty nest* (6.15%) and *Divorce* (4.62%). The unique event categories for the Slovak sample were *Baptism* (16.47%), *Confirmation* (8.24%), *Begin walking* (7.06%), *Hobby* (5.88%), *Siblings* (4.71%) and *Childhood* (4.71%).

The events that were unique for the Czech and Slovak life scripts compared to the Danish life script (Berntsen & Rubin, 2004) were *Own birth, High school* (including the high school state exam), *Life partner* (including finding, settling down with, living with or moving in with), *Finance and mortgage* (potentially comparable to the Danish event *Earn first money*), *Self-reflection/finding own identity, Hobby* and *Childhood*. The Danish life script events that were not represented in the Czech and Slovak samples were *First friend, First contact* (both events mentioned by one Slovak participant, 1.18% of the sample), *Puberty* (mentioned by 3 Czech participants, 2.31% of the sample), and *First rejection* (mentioned by one Czech participant, 0.77% of the sample, and two Slovak participants, 2.35% of the sample).

To test Hypothesis 1 we calculated the mean overlap of event categories between the Czech and Slovak life scripts and between the Czech and Slovak life scripts and the life scripts of the cultures reported in the following studies (in alphabetical order): Berntsen and Rubin, 2004; Coleman, 2014; Erdoğan et al., 2008; Hatiboğlu and Habermas, 2016; Janssen, 2015; Janssen et al., 2014; Janssen and Haque, 2018; Janssen and Rubin, 2011; Ottsen and Berntsen, 2014; Rubin, et al., 2009; Zaragoza Scherman et al., 2017 (See Table 3). To calculate this mean overlap of event categories between the life scripts, first we counted the number of shared categories. Then, we converted this frequency count to two percentages, one for each life script, as the life scripts have different number of event categories. Thus, each percentage represents the proportion of shared event categories in each country's life script. For example, Slovakia has a total of 31 event categories, of which 25 are shared with the Czech life script, which corresponds to 80.6% of the Slovak life script. On the other hand, the Czech life script has a total of 28 categories, of which 25 are shared with the Slovak life script. This corresponds to 89.3% of the Czech life script. Subsequently, we calculated the mean of the two percentages to find one number that would reflect the overall overlap. That way we obtained the number that represents the mean overlap between the two life scripts. In Table 3, the first and second columns refer to the country where the life script was collected and the reference to the original study, respectively. The third column reflects the total number of life script event categories (including the category *Other*) in that particular country's life script. The fourth column (Shared event categories, *Other* included) shows the number of shared event categories between the Czech life script and every other life script from the countries listed in the first column. The fifth column (% of shared event categories) shows the percentage of the shared categories between the Czech life script and the other life scripts when calculated with the total number of the Czech life script event categories. For example, in the case of the overlap between the Czech and Danish (Berntsen & Rubin, 2004)

life scripts it is the percentage of the number of shared categories between them (21) out of the total Czech life script categories (28). In this case it is 75%. The sixth column (% of shared event categories in the life script of country from the first column) shows the percentage of the shared event categories between the Czech life script and the other life scripts when calculated with the total number of the other life script event categories. Following the Danish example, this percentage reflects that the number of shared event categories between the Czech and Danish life scripts (21), represents 58.3% of the Danish life script categories. The seventh column (mean overlap) was calculated as a mean of the two percentages (the % of the shared event categories within the Czech life script and the % of shared event categories within the life script of the other country listed in the first column; in this example, the Danish life script). Thus, the mean overlap between the Czech and Danish life scripts was 66.7%, resulting from the average of 75% and 58.3%. This number represents the overall overlap between the two life scripts. The remaining columns show the same calculations as in the fourth to the seventh columns, but for the Slovak life script.

The mean overlap between the Czech and the Slovak life script was 85%, which is the highest overlap we found and reflect the similarities in the cultures. No other life scripts showed higher overlap. The mean overlap between the Czech life script and the other life scripts ranged from 43.9% with the Qatari life script (Ottsen & Berntsen, 2014) to 74.4% with the Dutch life script (Janssen & Rubin, 2011). The mean overlap between the Slovak life script and the other life scripts ranged from 45.7% with the African American life script (Coleman, 2014) to 75% with the Danish life script (Berntsen & Rubin, 2004).

It is worth considering that the analysis of the overlap between categories is highly dependent on the coding procedures and naming strategies employed in each study. A higher overlap between the Czech and Slovak life scripts can potentially have resulted from the fact that the same coding procedure and naming strategy were used. However, while analyzing the

overlap between various scripts, the categories were interpreted as the same based on their meaning and content and not only on the exact same name of the category. For example, the category *Long trip* in the Czech and Slovak life scripts was considered the same as category *Travelling* in the Turkish life script (Hatiboğlu & Habermas, 2016). The category *Empty nest* from the Czech life script was considered the same as the category *Children leave home* found in the Malaysian life script (Janssen & Haque, 2018).

Chronological Order of Events

The analysis revealed that participants generated the life script events in the specific order in which the events usually expected to happen in life. We calculated the Spearman's rho correlation coefficient for order of events and estimated age at events for each participant and the mean of correlation coefficients was $r_s = .86$ for the Czech sample and $r_s = .75$ for the Slovak sample. This means that the events were generated chronologically, from the ones that happen early in life to those expected to happen later. This finding was in line with the literature (Berntsen & Rubin, 2004; Zaragoza Scherman et al., 2017).

Positivity Bias

The events generated in both samples were mainly positive. In the Czech sample, out of total 910 events, 82.42% events were rated as positive, 10.77% events were rated as negative and 6.81% of events were rated as neutral (Figure 2, upper panel). Out of 595 events generated by the Slovak sample, 83.87% were positive, 8.40% were negative and 7.73% were neutral (see Figure 2, lower panel). The *Chi-square test* calculated for positive, negative and neutral events, $\chi^2(2) = 988.73, p < .01$ for the Czech sample and $\chi^2(2) = 683.74, p < .001$ for the Slovak sample, indicating a significant difference between the number of positive events and both negative and neutral events in both samples with non-significant differences between the amount of negative and neutral events, all $ps > .05$.

Lifespan Distribution for Positive Events

In both samples, there was a clear lifespan distribution that mirrored that of the reminiscence bump for positive events (Figure 2). Out of all positive events, 62.8% were expected to occur between the ages of 15 and 30 (reminiscence bump period) in the Czech life script and 62.5% in the Slovak life script. Out of all negative events, only 20.4% were expected to occur within the bump period in the Czech life script and 16% in the Slovak life script. For neutral events, 41.9% were expected to occur within bump period in the Czech sample and 47.8% in the Slovak sample. In the Czech life script a *Chi-square test* revealed that positive events were not equally spread throughout the life span, with more positive events located in the bump period, $\chi^2(1) = 49.15; p < .01$. The same was found in the Slovak life script, positive events were more often expected to occur within the bump period compared to outside of the bump period, $\chi^2(1) = 31.31; p < .01$. A *Chi-square test* for the negative events revealed, that more negative events were expected to occur outside of the bump period in both life scripts (for the Czech life script: $\chi^2(1) = 34.33; p < .01$, and for the Slovak life script: $\chi^2(1) = 23.12; p < .01$), which suggests that negative events were spread more evenly throughout the lifespan.

A small increase of negative events could be observed in the later decade (between 50 and 59 years of age) which could have been caused by the event *Parents' death* in both samples located in this decade and was rated as an emotionally negative event ($M_{age} = 52.05$, $SD = 7.89$ and $M_{valence} = -2.36$, $SD = 0.90$ in the Czech life script, and $M_{age} = 55.50$, $SD = 4.97$ and $M_{valence} = -2.80$, $SD = 0.42$ in the Slovak life script). An even smaller increase in the decade between 60 and 69 years of age could be observed for neutral events, which was caused by the event *Retirement/Old age* that was often located by participant in this decade (Czech life script: $M_{age} = 66.17$, $SD = 3.72$; Slovak life script: $M_{age} = 65.59$, $SD = 6.70$) and rated as a neutral event (Czech life script: $M_{valence} = 0.70$, $SD = 1.67$; Slovak life script: $M_{valence} = 0.45$, $SD = 1.34$). A small increase for positive events in the later decades (50-59

and 60-69 years of age) was caused by the event *Grandchildren*, that appeared in both life scripts around the age of 60 ($M_{age} = 55.80$, $SD = 7.36$ in the Czech life script; $M_{age} = 56.10$, $SD = 5.09$ in the Slovak life script) and was rated as an emotionally positive event ($M_{valence} = 2.20$, $SD = 0.96$ in the Czech life script; $M_{valence} = 2.70$, $SD = 0.48$ in the Slovak life script).

Age Estimates for Positive and Negative Life Script Events

The standard deviations of age estimates for positive events are expected to be narrower, while those of negative events were expected to be wider. We calculated the Pearson's correlation between the mean emotional valence rating for each event and mean standard deviation of age estimates for each event (the category *Other* was excluded from the analysis). The results confirmed our expectations. In the Czech life script ($n = 27$) the correlation was $r = -.50$, $p < .05$; in the Slovak life script ($n = 30$) the correlation was $r = -.55$, $p < .01$. This negative correlation suggests that the more positive the event, the higher the agreement between participants about the estimated age of its occurrence in a life span.

Social vs. Biological Events

Social event categories were expected to represent many more event categories in the life scripts generated by both samples, which was supported by the results. The event categories were coded as either "social" or "biological" for both samples. The category *Other* was not included in this analysis. In the Czech life script, 92.96% of the event categories were coded as social event categories. The remaining 7.04% corresponded to event categories that were coded as biological (*Own birth* and *Own death*). In the Slovak life script, 86.70% of the event categories were coded as social, whereas only 13.30% of event categories were coded as biological (*Own birth*, *Own death*, *Childhood*, *Begin walking*). The inter-rater agreement was 100%. These findings showed that the biological event categories, such as *Menarche* and *Own death* were represented less than the social event categories, which is consistent with

previous research. For example, Zaragoza Scherman and colleagues (2017) reported that 91% of social events in the Chinese life script, 88% in the Danish life script, 90% in the Greenlandic life script, and 99% in the Mexican life script. An additional three studies also found significantly higher number of social events compared to biological ones, but did not report the number or percentage (Berntsen & Rubin, 2004 – Danish life script; Ottsen & Berntsen, 2014 – Qatari life script; Rubin et al., 2009 – American life script).

Discussion

This study conducted in Slovakia and the Czech Republic provides a unique opportunity to explore two cultures that developed together during the era of Czechoslovakia but also evolved separately after splitting up, while the political relationship stayed positive. The main goal of this study was to obtain the cultural life scripts of the Czech Republic and Slovakia.

The cultural life scripts of the Czech Republic and Slovakia were very similar. The mean overlap between the Czech and Slovak life scripts was 85%. This high overlap may be partly due to the fact that our research was conducted in a relatively short period of time after the separation. Seemingly, 26 years is not enough time for two cultures to fully separate and develop on their own. An alternative explanation might be that, as an idealized life in a certain culture, the cultural life script may not be sensitive enough to detect small nuances in cultures of two countries that used to be one country a quarter of a century ago. Also, the Czech Republic and Slovakia are both countries with a same catholic religious tradition, which could have an effect on the similarity of the scripts. When compared to life scripts from countries with a different religion (e.g., Ottsen & Berntsen, 2014), more differences appeared. Both the Czech Republic and Slovakia are situated in a similar region of Middle Europe, so there were no specific events linked with the environmental setting, such as *Hunting milestones* in

Greenland (Zaragoza Scherman et al., 2017). Finally, the law system is based on the same traditions and is quite comparable between the Czech Republic and Slovakia, which also could affect the similarity of the scripts. For example, no events such as *Military service* in Turkey (Erdoğan et al., 2008) were observed in neither of the two countries.

The mean overlap between the Czech and Slovak life scripts with other scripts from different countries showed interesting findings. As mentioned earlier, the overlap between scripts from countries with similar religious, political and geographical background is expected to be bigger, than with countries with different cultural characteristics. The results showed in Table 3 partly confirm this assumption. The Czech and Slovak life scripts were overlapping the most with the life scripts from countries with similar cultural backgrounds, such as Denmark and the Netherlands but surprisingly also with Australia or Japan. The event categories in the Japanese life script showed a mean overlap of 73.7% with the Czech life script and of 66.7% with the Slovak script. It may suggest that Japan is culturally closer to the central or Western European cultures, than would be expected. Life scripts from Qatar, Turkey, and China seem to have the least in common with the Czech and Slovak life scripts. Interestingly, the life scripts with two American samples showed somewhat different mean overlaps with the Czech and Slovak scripts. The American life script in Rubin et al. (2009) showed a mean overlap of 68.1% with the Czech life script and of 65% with the Slovak life script, while the American life script in Coleman (2014) showed a mean overlap of 51.5% with the Czech life script and of 45.7% with the Slovak life script. This might have been due to the different samples surveyed in both studies. Coleman (2014) surveyed only adult African American participants, while Rubin and colleagues (2009, Study 1) surveyed American undergraduate university students.

The similarities between the Czech and Slovak life scripts could also correspond to the expected properties of life scripts, in general. For example, in both life scripts the events were listed in chronological order and life scripts were highly positive (82.42% of positive events in the Czech sample and 83.87% in the Slovak sample). This is consistent with the positivity bias found many times in the literature (Berntsen & Rubin, 2002, 2004; Bohn, 2010; Erdoğan et al., 2008; Rubin et al., 2009; Tekcan et al., 2012; Zaragoza Scherman et al., 2017).

As predicted by the cultural life script theory, both scripts showed a lifespan distribution similar to that of the reminiscence bump for positive events during young adulthood (see Figure 2), which was also in accordance with the literature (e.g., Janssen et al., 2014). As hypothesized, there was higher agreement of the timing of the positive events in the lifespan among participants, which was consistent with the literature (Erdoğan et al., 2008). As predicted, there were many more social events than biological in both life scripts (92.96% of social events in the Czech sample and 86.70% in the Slovak sample), as has been found in other studies (e.g., Ottsen & Berntsen, 2014; Zaragoza Scherman et al., 2017).

Despite the two scripts being very similar, we also found unique events in both Slovak and Czech life scripts, which could reflect the cultural differences of these two now separate countries. Of the top 12 mentioned events, the most evident unique event is *Baptism*, which was mentioned by 16.47% of the participants in the Slovak sample. *Baptism*, together with *Confirmation*, represented unique Slovak events, with *Confirmation* mentioned by more than 8.24% of participants in the sample. This is consistent with national records about the overall religiosity of the two countries, with Slovakia being much more religious than the Czech Republic. Other unique events for Slovakia were *Begin walking*, *Hobby*, *Siblings* and *Childhood*, while Czech unique events were *Accident or disease*, *Divorce* and *Empty nest*. The lack of event *Divorce* in Slovak sample may also be in line with the religiosity of the

country. The event *Empty nest* appearing in the Czech sample, but not in the Slovak sample, may be related to the fact, that Slovak families seems to be more extended, while Czech families are smaller (Kolman et al., 2003; Musil, 1993), which could mean that children leave home and live apart (or far) from their parents more often, which can cause the *Empty nest* being much more experienced in Czech society. According to Kolman and colleagues (2003) and Musil (1993), Slovak families tend to be more extended with tighter bounds. We believe this could partly explain the appearance of the events *Siblings* and *Childhood* only in the Slovak life script. The strong family bounds can be related to the Hofstede's dimension of collectivism vs. individualism of different cultures. Slovakia is considered more collectivist while the Czech Republic on the other hand is more individualistic (Kolman et al., 2003). This might have been due to the stronger influence of socialist regime in the Slovak part of Czechoslovakia and due to different attitudes towards work with less emphasis on personal life in Slovakia.

The rest of the unique events (*Begin walking* and *Hobby* in the Slovak sample and *Accident or disease* in the Czech sample) were mentioned by the minority of the participants, and their uniqueness has no clear explanation.

Even though the separation of the Czech Republic and Slovakia has certainly had an effect on the formation of these two countries after 1993 (when Czechoslovakia ceased to exist), it did not seem to have an effect on the culturally common expectations regarding the timing and order of important life events during an ideal life course. Although these expectations about the life course could potentially be affected within a longer timeframe; for example, if economic changes prevented the population from attending college, getting married, and having children due to elevated costs. Perhaps, stronger and more evident and immediate consequences would be in the economy of the countries (Musil, 1992), as different

strategies and economic decisions were taken in the Czech Republic and Slovakia after the separation. For example, both countries joined the European Union in 2004; however only Slovakia entered Euro zone in 2009, whereas the Czech Republic's currency remains the same (Czech crown, "česká koruna"). Also pension and health care systems took slightly different directions in both countries after the separation.

Potential Limitations

The majority of participants in the study were women. This could have been affected the results. However, as the percentage of women was equivalent in both countries, the samples were comparable. Furthermore, frequent female participation in voluntary surveys and questionnaires is typical (Smith, 2008). In this case, the snowball sampling procedure seems to have reached more women than men, creating an unbalanced gender distribution. Another potential bias was that the majority of participants were highly educated. However, this seems to be with analysis that showing that more educated people participate in surveys more often (Goyder et al., 2002). Unfortunately, the number of participants in each sample was also different, despite efforts to recruit equal number of participants. Finally, the high number of questionnaires excluded from the final data analysis, due to incompleteness, could have also skewed our results due to non-response bias. The online questionnaire was long and many participants quit their session before answering all questions. All the aforementioned limitations could play a role in the external validity of the study and might have biased the results. This study, however, did not aspire to include a representative sample and the sampling procedure used in this study is similar to those used in other life script research studies. Despite these potential limitations, the fact that we replicate the findings in the cultural life script literature suggests that the results are valid.

Future Research

The next step in this research program would be to collect autobiographical memories from Czech and Slovak participants to examine whether the life script helps recall of autobiographical memories, as the cultural life script theory would predict (Berntsen & Rubin, 2004; Bohn & Berntsen, 2008; Koppel & Berntsen, 2014). Another possibility would be to examine, if the life stories of Czech and Slovak participants include any historical events typical for the countries, such as the Velvet Revolution in 1989 or an occupation of the armies of the Warsaw Pact countries in 1968. This research idea derives from a research project *Living in History* conducted by Brown and colleagues (e.g., Brown et al., 2009; Brown & Lee, 2010) in different countries, which examines the extent to which historical events shape autobiographical memories and help participants to date their autobiographical memories. This could be an interesting cross-cultural approach regarding autobiographical memory.

Conclusion

Cultural life scripts in the Czech Republic and Slovakia shared the majority of events; however, some unique events were also found in each culture. The Czech and Slovak life scripts have comparable characteristics with life scripts from other countries, such as dominance of positive events within life script (positivity bias), order of events listed as they are expected to occur in life, positive events being located from 15 to 30 years of age during the life span and dominance of social over biological events.

Disclosure of conflict of interest

The authors report no conflict of interest.

References

- Berntsen, D., & Rubin, D. C. (2002). Emotionally charged autobiographical memories across the life span: The recall of happy, sad, traumatic, and involuntary memories. *Psychology and Aging, 17*(4), 636–652. <https://doi.org/10.1037/0882-7974.17.4.636>
- Berntsen, D., & Rubin, D. C. (2004). Cultural life scripts structure recall from autobiographical memory. *Memory & Cognition, 32*(3), 427–442. <https://doi.org/10.3758/BF03195836>
- Bohn, A. (2010). Generational differences in cultural life scripts and life story memories of younger and older adults. *Applied Cognitive Psychology, 24*(9), 1324–1345. <https://doi.org/10.1002/acp.1641>
- Bohn, A., & Berntsen, D. (2008). 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, 44*(4), 1135–1147. <https://doi.org/10.1037/0012-1649.44.4.1135>
- Brislin, R. W. (1970). Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology, 1*(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Brown, N. R., & Lee, P. J. (2010). Public events and the organization of autobiographical memory: An overview of the living-in-history project. *Behavioral Sciences of Terrorism and Political Aggression, 2*(2), 133–149. <https://doi.org/10.1080/19434471003597431>
- Brown, N. R., Lee, P. J., Krslak, M., Conrad, F. G., G B Hansen, T., Havelka, J., & Reddon, J. R. (2009). Living in history: How war, terrorism, and natural disaster affect the organization of autobiographical memory. *Psychological Science, 20*(4), 399–405. <https://doi.org/10.1111/j.1467-9280.2009.02307.x>

- Coleman, J. T. (2014). Examining the Life Script of African-Americans: A Test of the Cultural Life Script. *Applied Cognitive Psychology*, 28(3), 419–426.
<https://doi.org/10.1002/acp.3000>
- Conway, M. A. (2005). Memory and the self. *Journal of Memory and Language*, 53(4), 594–628. <https://doi.org/10.1016/j.jml.2005.08.005>
- Conway, M. A., & Pleydell-Pearce, Ch. W. (2000). The Construction of Autobiographical Memories in the Self-Memory System. *Psychological Review*, 107(2), 261–288.
<https://doi.org/10.1037/0033-295X.107.2.261>
- Czech Statistical Office. (2014). *Náboženská víra obyvatel podle výsledků sčítání lidu - 2011.* [Religious belief of the Czech population according to the census results - 2011.] (Czech Statistical Office Publication No. 170220-14)
<https://www.czso.cz/csu/czso/nabozenska-vira-obyvatel-podle-vysledku-scitani-lidu-2011-61wegp46fl>
- Czech Statistical Office. (2019, September). *Population.*
https://www.czso.cz/csu/czso/obyvatelstvo_lide
- Elster, J. (1995). Transition, constitution-making and separation in Czechoslovakia. *European Journal of Sociology / Archives Européennes de Sociologie*, 36(1), 105–134.
<https://doi.org/10.1017/S0003975600007128>
- Erdoğan, A., Baran, B., Avlar, B., Taş, A. Ç., & Tekcan, A. İ. (2008). On the persistence of positive events in life scripts. *Applied Cognitive Psychology*, 22(1), 95–111.
<https://doi.org/10.1002/acp.1363>
- Goyder, J., Warriner, K., & Miller, S. (2002). Evaluating Socio-economic Status (SES) Bias in Survey Nonresponse. *Journal of Official Statistics*, 18(1), 1–11.
<https://search.proquest.com/docview/1266793999?accountid=16531>

- Hatiboğlu, N., & Habermas, T. (2016). The normativity of life scripts and its relation with life story events across cultures and subcultures. *Memory*, 24(10), 1369–1381.
<https://doi.org/10.1080/09658211.2015.1111389>
- Janssen, S. M. J. (2015). Is There a Cultural Life Script for Public Events? *Applied Cognitive Psychology*, 29(1), 61–68. <https://doi.org/10.1002/acp.3022>
- Janssen, S. M. J. (2020). Introduction to the Cognitive Abilities Account for the Reminiscence Bump in the Temporal Distribution of Autobiographical Memory. *Psychological Reports*, 123(1), 12–42. <https://doi.org/10.1177/0033294119843221>
- Janssen, S. M. J., & Haque, S. (2018). The transmission and stability of cultural life scripts: A cross-cultural study. *Memory*, 26(1), 131–143.
<https://doi.org/10.1080/09658211.2017.1335327>
- Janssen, S. M. J., Kristo, G., Rouw, R., & Murre, J. M. J. (2015). The relation between verbal and visuospatial memory and autobiographical memory. *Consciousness and Cognition*, 31, 12–23. <https://doi.org/10.1016/j.concog.2014.10.001>
- Janssen, S. M. J., & Murre, J. M. J. (2008). Reminiscence Bump in Autobiographical Memory: Unexplained by Novelty, Emotionality, Valence, or Importance of Personal Events. *Quarterly Journal of Experimental Psychology*, 61(12), 1847–1860.
<https://doi.org/10.1080/17470210701774242>
- Janssen, S. M. J., & Rubin, D. C. (2011). Age effects in cultural life scripts. *Applied Cognitive Psychology*, 25(2), 291–298. <https://doi.org/10.1002/acp.1690>
- Janssen, S. M. J., Uemiyama, A., & Naka, M. (2014). Age and gender effects in the cultural life script of Japanese adults. *Journal of Cognitive Psychology*, 26(3), 307–321.
<https://doi.org/10.1080/20445911.2014.892493>
- Juhaščíková, I., Katerinková, M., Krčmeryová, E., Podmanická, Z., Škápik, P., Štukovská, Z., & Zahn, O. (2014). Fakty o zmenách v živote obyvateľov SR. [Facts about changes in

- the lives of Slovak citizens.] (Publication of Statistical Office of the Slovak Republic No. 23914). <https://bit.ly/2kOFHKp>
- Kadlčíková, D. (2019). *Life scripts of the Czech population* [Master's thesis, Masaryk University]. IS MUNI Theses. <https://is.muni.cz/auth/th/qb6id/>
- Kolman, L., Noorderhaven, N. G., Hofstede, G., & Dienes, E. (2003). Cross-cultural differences in Central Europe. *Journal of Managerial Psychology*, 18(1), 76–88. <https://doi.org/10.1108/02683940310459600>
- Koppel, J., & Berntsen, D. (2014). The cultural life script as cognitive schema: How the life script shapes memory for fictional life stories. *Memory*, 22(8), 949–971. <https://doi.org/10.1080/09658211.2013.859269>
- Koppel, J., & Berntsen, D. (2015). There may Not be a Cultural Life Script for Public Events, But there is a Youth Bias: Response to Janssen (2014). *Applied Cognitive Psychology*, 29(1), 69–70. <https://doi.org/10.1002/acp.3076>
- Kozachenko, I. (2019). Fighting for the Soviet Union 2.0: Digital nostalgia and national belonging in the context of the Ukrainian crisis. *Communist and Post-Communist Studies*, 52(1), 1–10. <https://doi.org/10.1016/j.postcomstud.2019.01.001>
- Musil, J. (1992). Czechoslovakia in the Middle of Transition. *Czechoslovak Sociological Review*, 28, 5–21. <https://www.jstor.org/stable/41133192>
- Musil, J. (1993). Czech and Slovak Society: Outline of a Comparative Study. *Czech Sociological Review*, 1(1), 5–21. <https://www.jstor.org/stable/43945167>
- Neugarten, B. L., Moore, J. W., & Lowe, J. C. (1965). Age Norms, Age Constraints, and Adult Socialization. *American Journal of Sociology*, 70(6), 710–717. <https://www.jstor.org/stable/2774397>

- Nikolayenko, O. (2008). Contextual effects on historical memory: Soviet nostalgia among post-Soviet adolescents. *Communist and Post-Communist Studies*, *41*(2), 243–259.
<https://doi.org/10.1016/j.postcomstud.2008.03.001>
- Ottsen, C. L., & Berntsen, D. (2014). The cultural life script of Qatar and across cultures: Effects of gender and religion. *Memory*, *22*(4), 390–407.
<https://doi.org/10.1080/09658211.2013.795598>
- Pathman, T., Samson, Z., Dugas, K., Cabeza, R., & Bauer, P. J. (2011). A “snapshot” of declarative memory: Differing developmental trajectories in episodic and autobiographical memory. *Memory*, *19*(8), 825–835.
<https://doi.org/10.1080/09658211.2011.613839>
- Pillemer, D. B. (2001). Momentous Events and the Life Story: *Review of General Psychology*.
<https://journals.sagepub.com/doi/10.1037/1089-2680.5.2.123>
- Robinson, J. A. (1992). First Experience Memories: Contexts and Functions in Personal Histories. In M. A. Conway, D. C. Rubin, H. Spinnler, & W. A. Wagenaar (Eds.), *Theoretical Perspectives on Autobiographical Memory* (pp. 223–239). Springer Netherlands. https://doi.org/10.1007/978-94-015-7967-4_13
- Rubin, D. C., & Berntsen, D. (2003). Life scripts help to maintain autobiographical memories of highly positive, but not highly negative, events. *Memory & Cognition*, *31*(1), 1–14.
<https://doi.org/10.3758/BF03196077>
- Rubin, D. C., Berntsen, D., & Hutson, M. (2009). The normative and the personal life: Individual differences in life scripts and life story events among USA and Danish undergraduates. *Memory*, *17*(1), 54–68. <https://doi.org/10.1080/09658210802541442>
- Rubin, D. C., Rahhal, T. A., & Poon, L. W. (1998). Things learned in early adulthood are remembered best. *Memory & Cognition*, *26*(1), 3–19.
<https://doi.org/10.3758/BF03211366>

- Rubin, D. C., Wetzler, S. E., & Nebes, R. D. (1986). Autobiographical memory across the lifespan. In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 202–221). Cambridge University Press.
- Schank, R. C., & Abelson, R. P. (1977). Inference and Comprehension. In P. N. Johnson-Laird & P. C. Wason (Eds.), *Thinking: Readings in Cognitive Science* (pp. 341–434). Cambridge University Press.
- Schrauf, R. W., & Rubin, D. C. (1998). Bilingual Autobiographical Memory in Older Adult Immigrants: A Test of Cognitive Explanations of the Reminiscence Bump and the Linguistic Encoding of Memories. *Journal of Memory and Language*, 39(3), 437–457. <https://doi.org/10.1006/jmla.1998.2585>
- Smith, W. G. (2008). *Does Gender Influence Online Survey Participation? A Record-Linkage Analysis of University Faculty Online Survey Response Behavior*. <https://eric.ed.gov/?id=ED501717>
- Statistical Office of the Slovak Republic. (2019, September). *Population and Migration*. <https://slovak.statistics.sk/wps/portal/ext/themes/demography/population/news/>
- Tekcan, A. İ., Kaya-Kızıllöz, B., & Odaman, H. (2012). Life scripts across age groups: A comparison of adolescents, young adults, and older adults. *Memory*, 20(8), 836–847. <https://doi.org/10.1080/09658211.2012.710431>
- Wang, Q. (2016). Remembering the self in cultural contexts: A cultural dynamic theory of autobiographical memory. *Memory Studies*, 9(3), 295–304. <https://doi.org/10.1177/1750698016645238>
- Yarashevich, V., & Karneyeva, Y. (2013). Economic reasons for the break-up of Yugoslavia. *Communist and Post-Communist Studies*, 46(2), 263–273. <https://doi.org/10.1016/j.postcomstud.2013.03.002>

Zaragoza Scherman, A. (2013). Cultural life script theory and the reminiscence bump: A reanalysis of seven studies across cultures. *Nordic Psychology*, 65(2), 103–119.
<https://doi.org/10.1080/19012276.2013.807667>

Zaragoza Scherman, A., Salgado, S., Shao, Z., & Berntsen, D. (2015). Life span distribution and content of positive and negative autobiographical memories across cultures. *Psychology of Consciousness: Theory, Research, and Practice*, 2(4), 475–489.
<https://doi.org/10.1037/cns0000070>

Zaragoza Scherman, A., Salgado, S., Shao, Z., & Berntsen, D. (2017). Life Script Events and Autobiographical Memories of Important Life Story Events in Mexico, Greenland, China, and Denmark. *Journal of Applied Research in Memory and Cognition*, 6(1), 60–73. <https://doi.org/10.1016/j.jarmac.2016.11.007>

Table 1. Life Script Event Categories Mentioned by At Least 4% of the Participants (Per Sample) in the Czech Republic With the Number of Participants and Percentage of Participants Who Mentioned Each Event Category Estimated Prevalence in Population, Estimated Importance, Estimated Age at Event and Emotional Valence.

Event	Czech Republic (N = 130)									
	Sum	% of participants	Prevalence		Importance		Age		Valence	
			M	SD	M	SD	M	SD	M	SD
Having children	132	93.85	76.38	15.66	6.28	0.88	28.39	3.68	2.61	0.75
Education	79	52.31	89.68	18.09	6.48	0.95	12.62	7.35	2.32	1.06
Marriage	78	60.00	68.08	14.60	5.21	1.02	27.27	2.81	2.23	0.77
Job	59	44.62	89.27	13.74	6.25	1.04	22.46	5.36	2.07	1.30
Elementary school	58	44.62	99.09	1.77	6.66	0.69	6.53	1.73	2.52	0.80
High school	54	37.69	74.11	14.29	5.80	1.09	17.52	1.76	2.41	0.86
Retirement/Old age	46	35.38	80.28	16.89	5.46	1.60	66.17	3.72	0.70	1.67
College	30	20.77	44.67	18.66	5.50	1.28	21.87	3.14	2.30	0.95
Grandchildren	30	23.08	74.27	14.92	5.83	1.09	55.80	7.36	2.20	0.96
Fall in love	26	19.23	90.58	13.77	5.62	1.13	14.73	3.92	2.46	0.58
Begin daycare	24	17.69	89.04	9.37	5.58	1.35	3.50	1.02	2.00	0.93
Leave home	22	16.15	84.59	13.55	5.64	1.22	24.55	3.54	2.14	0.99
Parents' death	22	16.92	97.18	5.16	6.00	1.02	52.05	7.89	-2.36	0.90
Life partner	21	15.38	83.33	14.32	5.95	1.02	21.29	4.66	2.43	0.51
Own death	21	16.15	97.62	10.91	5.52	2.06	81.43	5.51	-2.24	1.14
Own birth	20	15.38	98.50	4.89	6.80	0.89	4.70	9.65	2.75	0.72
Others' death	17	13.08	94.76	12.16	5.29	1.57	39.88	13.77	-2.06	1.56
The "right" job	16	12.31	84.06	17.11	5.94	1.69	20.75	5.81	2.13	1.02
Finance	13	8.46	58.69	24.76	5.08	1.66	29.31	5.02	1.31	1.32
Settle on career	12	9.23	65.75	28.64	5.83	1.03	33.67	9.65	2.42	0.67
Having peers	11	7.69	92.45	13.34	6.09	1.14	8.55	6.73	2.45	0.69
Long trip	11	7.69	48.09	22.63	4.91	1.45	23.00	4.47	2.09	1.04
The "first" job	11	8.46	96.55	3.72	6.00	1.55	22.18	3.22	1.64	1.36
Accident, disease ¹	8	6.15	60.50	26.01	4.13	2.36	28.13	30.80	-1.00	2.00
Empty nest ¹	8	6.15	81.88	12.23	5.63	1.19	47.88	10.37	1.75	1.75
Self-reflection	7	4.62	85.00	21.02	4.71	2.21	38.14	19.13	0.43	2.15
Divorce ¹	6	4.62	54.17	22.89	5.17	1.60	39.17	12.81	-0.33	2.80
Other	68	40.00	71.65	33.55	5.34	1.60	21.68	22.47	1.49	1.80

¹ The unique Czech event categories not represented in the Slovak life script

Table 2. Life Script Event Categories Mentioned by At Least 4% of the Participants (Per Sample) in Slovakia With the Number of Participants and Percentage of Participants Who Mentioned Each Event Category Estimated Prevalence in Population, Estimated Importance, Estimated Age at Event and Emotional Valence.

Event	Slovakia (N = 85)									
	Sum	% of participants	Prevalence		Importance		Age		Valence	
			M	SD	M	SD	M	SD	M	SD
Having children	75	80.00	74.49	16.45	6.32	0.86	28.07	3.95	2.68	0.62
Marriage	49	57.65	69.10	16.70	5.61	1.30	27.08	3.70	2.49	0.79
Elementary school	43	47.06	98.47	3.45	6.58	1.18	7.51	3.25	2.81	0.55
Job	43	49.41	84.33	17.26	6.51	0.80	23.37	5.07	2.12	1.38
Education	39	43.53	86.33	18.75	6.38	0.75	12.74	8.07	2.46	0.79
High school	36	41.18	80.89	13.97	6.39	0.69	16.83	1.86	2.72	0.74
College	25	29.41	50.00	15.21	5.80	0.76	22.24	2.49	2.72	0.68
Fall in love	22	25.88	90.86	13.01	6.09	1.48	14.95	1.76	2.59	0.80
Retirement/Old age	22	25.88	82.64	18.06	5.64	1.18	65.59	6.70	0.45	1.34
Begin daycare	16	18.82	92.31	8.20	6.00	1.27	3.25	0.68	2.25	0.93
Baptism ¹	14	16.47	75.64	22.27	5.93	1.64	0.43	0.51	2.79	0.58
Having peers	12	10.59	85.42	15.44	5.75	1.06	15.92	12.54	1.92	1.83
Own death	12	14.12	99.75	0.62	6.25	1.36	72.58	21.03	-1.92	1.93
Life partner	11	12.94	74.45	20.95	5.91	0.70	25.36	3.56	2.18	0.98
Own birth	11	12.94	98.09	6.01	6.00	2.05	4.82	9.99	3.00	0.00
The "first" job	11	12.94	94.91	7.57	6.00	1.48	20.18	2.48	2.09	1.14
Grandchildren	10	11.76	70.60	18.81	6.20	0.92	56.10	5.09	2.70	0.48
Leave home	10	11.76	73.50	22.17	5.10	1.66	24.20	3.29	2.20	1.03
Others' death	10	11.76	98.20	3.29	5.20	1.99	30.10	18.32	-2.40	0.97
Parents' death	10	11.76	89.00	8.76	5.60	1.27	55.50	4.97	-2.80	0.42
Self-reflection	9	10.59	80.56	21.86	5.22	1.72	22.44	13.74	0.67	2.24
Confirmation ¹	8	8.24	56.88	17.10	6.00	1.20	10.38	3.07	2.50	0.76
Finance	8	8.24	66.25	17.87	4.38	0.74	31.63	4.75	0.63	1.69
The "right" job	7	8.24	97.57	3.51	5.71	0.95	21.00	3.83	1.86	0.69
Begin walking ¹	6	7.06	100.00	0.00	6.00	1.67	1.00	0.00	3.00	0.00
Settle on career	6	7.06	66.50	22.22	5.33	1.03	35.33	6.02	2.33	0.52
Hobby ¹	5	5.88	67.00	26.83	5.80	1.64	20.20	17.66	2.60	0.89
Long trip	5	5.88	69.40	24.33	3.00	1.23	23.00	7.58	1.20	1.10
Childhood ¹	4	4.71	89.75	19.84	6.75	0.50	8.25	6.50	3.00	0.00
Siblings ¹	4	4.71	75.00	7.07	5.75	1.26	2.75	0.50	2.50	0.58
Other	52	44.71	80.94	25.41	5.52	1.63	25.10	19.83	1.04	1.99

¹ The unique Slovak event categories not represented in the Czech life script

Country	Study	Life script event categories (<i>Other</i> included)	Czech Life Script				Slovak Life Script			
			Shared event categories (<i>Other</i> included)	% of shared event categories	% of shared event categories in the life script of country from first column	Mean Overlap	Shared event categories (<i>Other</i> included)	% of shared event categories	% of shared event categories in the life script of country from first column	Mean Overlap
Slovakia	Štěpánková et al., 2020	31	25	89.3	80.6	85.0	31	100.0	100.0	100.0
Czech Republic	Štěpánková et al., 2020	28	28	100.0	100.0	100.0	25	80.6	89.3	85.0
Denmark	Berntsen & Rubin, 2004	36	21	75.0	58.3	66.7	25	80.6	69.4	75.0
Denmark	Zaragoza Scherman et al., 2017	35	22	78.6	62.9	70.7	24	77.4	68.6	73.0
Australia	Janssen 2015	34	20	71.4	58.8	65.1	22	71.0	64.7	67.8
the Netherlands	Janssen & Rubin, 2011	38	24	85.7	63.2	74.4	23	74.2	60.5	67.4
Japan	Janssen et al., 2014	32	22	78.6	68.8	73.7	21	67.7	65.6	66.7
USA	Rubin, Berntsen, Hutson, 2009	25	18	64.3	72.0	68.1	18	58.1	72.0	65.0
Greenland	Zaragoza Scherman et al., 2017	34	15	53.6	44.1	48.8	21	67.7	61.8	64.8
Australia	Janssen & Haque, 2018	36	21	75.0	58.3	66.7	21	67.7	58.3	63.0
Mexico	Zaragoza Scherman et al., 2017	40	18	64.3	45.0	54.6	22	71.0	55.0	63.0
Germany	Hatiboğlu & Habermas, 2016	33	17	60.7	51.5	56.1	19	61.3	57.6	59.4
Malaysia	Janssen & Haque, 2018	36	22	78.6	61.1	69.8	19	61.3	52.8	57.0
China	Zaragoza Scherman et al., 2017	36	17	60.7	47.2	54.0	19	61.3	52.8	57.0
Turkey	Hatiboğlu & Habermas, 2016 ¹	24	13	46.4	54.2	50.3	14	45.2	58.3	51.7
Turkey	Erdoğan et al., 2008	28	15	53.6	53.6	53.6	15	48.4	53.6	51.0
USA	Coleman, 2014 ²	54	19	67.9	35.2	51.5	18	58.1	33.3	45.7
Qatar	Ottsen & Berntsen, 2014	37	14	50.0	37.8	43.9	15	48.4	40.5	44.5

¹ Istanbul sample; ² African American sample

Table 3. The overlap between Czech, Slovak, and other life scripts.

Figure 1. The plotted decline of percentage of mentions in each event category in ranking order, for both samples.

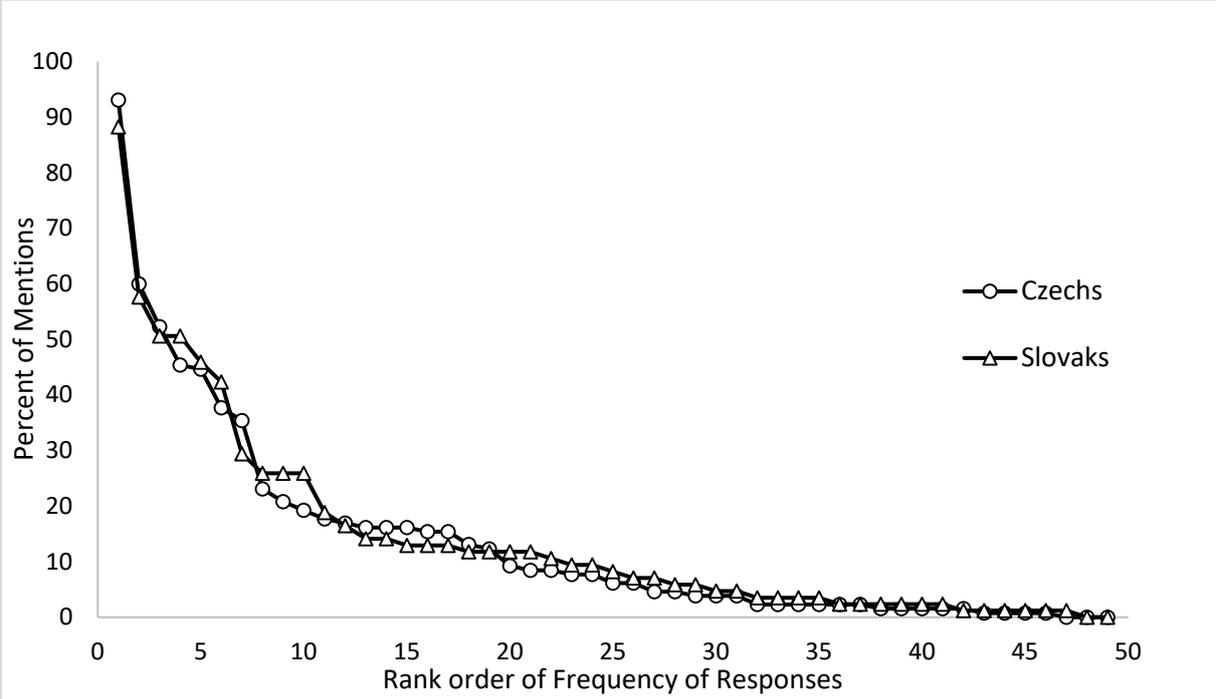


Figure 2. Lifespan distribution of cultural life script events in the Czech sample (upper panel) and Slovak sample (lower panel).

