Psicologia: Ciência e Profissão 2022 v. 42, e239089, 1-12.
https://doi.org/10.1590/1982-3703003239089

Brazilian Life Scripts: Reminiscence Bump Location and Characteristics of Life Events

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Abstract: The life script construct refers to the semantic knowledge shared by individuals from a given culture and reflects the expectations about when specific events are supposed to happen. This study aimed to identify whether a life script for Brazilian culture and its characteristics exists. Three hundred and eighty-four participants reported the seven most important events in the life of a hypothetical newborn of their same gender and culture. For each event, they informed an estimate of age and levels of importance, prevalence, and valence. Our results showed that most of the events cited were considered positive and expected to happen before age 30. The ages from 15 to 30 had the most positive events (51.9%). Events before age 15 were rated as more prevalent and important. The results are discussed as representations of lifetime development benchmarks within the Brazilian population and compared to other countries' data on life scripts.

Keywords: Autobiographical memory, Life scripts, Reminiscence bump.

Roteiro de Vida Brasileiro: Localização do *Reminiscence Bump* e Características dos Eventos de Vida

Resumo: O construto de roteiro de vida se refere ao conhecimento semântico compartilhado entre indivíduos de uma cultura e reflete as expectativas acerca de eventos específicos esperados. Este estudo tem como objetivo identificar se existe um roteiro de vida para a cultura brasileira e quais seriam suas características. Trezentos e oitenta e quatro participantes relataram quais os sete eventos mais importantes que provavelmente acontecerão na vida de um recém-nascido hipotético da mesma cultura e gênero que eles. Para cada evento, os participantes informaram estimativas de idade e níveis de importância, de prevalência e de valência. Os resultados mostram que a maioria dos eventos citados foram considerados positivos (51,9%). Eventos estimados para acontecer antes dos 15 anos de idade foram classificados como mais prevalentes e importantes. Os resultados são discutidos como representações de referências do desenvolvimento ao longo da vida na população brasileira e comparados com dados de roteiros de vida de outros países.

Palavras-chave: Memória autobiográfica, Roteiros de vida, *Reminiscence bump*.

Guiones de Vida de Brasileños: Localización del *Reminiscence Bump* y Características de los Eventos de la Vida

Resumen: La construcción del guion de vida se refiere al conocimiento semántico que se comparte entre los individuos de una cultura y refleja las expectativas sobre eventos específicos que se

espera ocurran en una vida típica. Este estudio tuvo como objetivo identificar eventos en el guion de vida para la cultura brasileña y cuáles serían sus características. Trescientos ochenta y cuatro participantes informaron cuáles son los siete eventos más importantes en la vida de un hipotético recién nacido de la misma cultura y género que ellos. Para cada evento, se informaron estimaciones de edad y niveles de importancia, prevalencia y valencia. Los resultados muestran que la mayoría de los eventos mencionados se consideraron positivos (51,9%). Los eventos de antes de los 15 años fueran más frecuentes y se clasificaron como los importantes. Los resultados se discuten como representaciones de referencias de desarrollo de por vida en la población brasileña y se comparan con datos de los itinerarios de vida de otros países.

Palabras clave: Memoria autobiográfica, Guiones de vida, *Reminiscence bump*.

Introduction

The influence of specific individual experiences on the assessment one makes of their well-being and quality of life is a topic of current and growing interest in the health sciences. Kahneman (2011) highlighted the existence of two domains that inform individuals when they consider their situation in life. On the one hand, there is an immediate context, based on the perspective of the self living its immediate experience. On the other hand, there is a more permanent realm, based on a mnemonic self. It is temporally extended, encompassing longer periods regarding the life story.

The autobiographical memory processes and knowledge that ground the extended domain comprise more than the information on the idiosyncratic episodes that have unfolded in time (Willoughby, Desrocher, Levine, & Rovet, 2012). That type of knowledge interacts with many contexts and kinds of information, from personal short episodes to general knowledge regarding how those episodes should unfold.

According to cognitive psychology, long-term memory systems encompass the maintenance and processing of both the episodic knowledge of specific events in a particular subject's life history and the semantic knowledge of what life histories are like in general (Rubin, Berntsen, & Hutson, 2009). For instance, one might evaluate whether having gotten married at 18 and divorced at 20 was good for them. That entails the positive and negative events they experienced during marriage, but also their representation of the events expected to happen to anyone in their cultural and historical context. Thus, the hedonistic assessment of one's own experience would employ at least two fundamental long-term memory capacities. The first is remembering what happened to oneself in the form of events recovered from episodic autobiographical memory. The second capacity is knowing what usually happens to individuals in contexts like their own, whether these are historical, geographical, cultural, or socio-economically contextualized.

Many studies in autobiographical memory have investigated how people organize and tell their life stories, which events people choose to tell, and why. When asked about their most important life memories, people over the age of 40 tend to report a large number of events that occurred on their second and third decades of life (Berntsen & Rubin, 2004). That effect is well documented in autobiographical memory studies by the name of reminiscence bump. The distribution of events remembered across the lifespan shows an increased number of positive memories (Wolf & Zimprich, 2016) from adolescence and early adulthood stages that are also personally significant (Rathbone, O'Connor, & Moulin, 2017). Nevertheless, the same effect does not occur for negative or traumatic memories (Berntsen & Rubin, 2002).

Different explanations have been raised to account for that phenomenon, the life script model being one of them. A life script refers to the semantic knowledge shared by a given culture about what is expected to happen in the lives of individuals from that culture (Berntsen & Rubin, 2004). It is not based on personal event memories, but in idealized constructions of a lifetime. Moreover, life scripts comprise normative expectations about important milestones that are supposed to happen in a given moment in the life course. That knowledge is an abstraction of the experiences of people from a specific culture and seems to be implicitly shared by members of a culture or community: the events considered important and their respective "timestamps" are rehearsed continuously by conversations, fictional narratives, and other products of that culture (Janssen & Haque, 2018). Research on this topic generally asks participants what seven most important events will probably occur

throughout the life course of a hypothetical newborn of their gender and culture and an estimate of at what age each of these events would take place.

Life script events are mostly positive and refer to important situations that represent a change in social roles. Studies on the cultural life script on different countries have found a distribution of events that resembles the distribution of important remembered autobiographical memories (Berntsen & Rubin, 2004; Erdoğan, Baran, Avlar, Taş, & Tekcan, 2008; Grysman & Dimakis, 2018; Hatiboğlu & Habermas, 2016; Janssen, 2015; Janssen & Haque, 2018; Janssen & Rubin, 2011; Janssen, Uemiya, & Naka, 2014; Ottsen & Berntsen, 2014; Rubin et al., 2009; Scherman, Salgado, Shao, & Berntsen, 2017; Santos, Felinto, Ávila-Souza, & Gauer, 2018). In general, 50% of positive life script events provided by the participants are expected to happen from 15 to 30 years of age. Like what is observed in the distribution of personal life events, negative events generally have a flatter distribution throughout the lifespan.

Usually, the agreement around the age estimates for positive life script events is higher than that for negative events (Janssen et al., 2014). It can be argued that people do not plan or project when negative events will occur. Although some negative events are commonly present in life scripts, such as "death of parents", and are considered important, we found no expected age in which this kind of event is supposed to happen. In an actual life course, negative events are frequent and can also be outstanding, but life scripts refer to an idealized life, in which people project how they expect life to be and not what it is.

According to the life script account for the reminiscence bump, the shared knowledge about life expectations is used to help organize the life narrative of people from a given culture. The events of the life script are more discussed and rehearsed, making them more accessible in the memory. Thus, when people are asked to tell their life stories in a narrative or to choose the most important events they experienced, or in response to cue words, adolescence and early adulthood are more represented. That might be because most of the expected and culturally supported events are supposed to happen at those periods (Koppel & Berntsen, 2015).

Other explanations for the bump focus on different aspects, such as the moment of encoding (Koppel & Rubin, 2016). The cognitive account suggests the novelty of the events may explain the bump. In the period from 15 to 30 years of age, most of the new and outstanding experiences in life will happen. Fewer types of events tend to be novel after the age of 30, contributing to a more perceived stability. Thus, the memories from that former stage would be better encoded and recalled more vivid and detailed (Berntsen & Rubin, 2002). However, Janssen, Rubin and St Jacques (2011) found that when participants were asked to rate their memories on vividness and reliving, the memories from the bump period were not the most detailed.

The identity account of the reminiscence bump proposes that the importance of this period to the consolidation of identity explains the bump. In Western cultures, that would be the period of life when most of the central, self-defining moments will happen (Koppel & Rubin, 2016). However, if the reason for the bump is the importance of events from these stages to the formation of identity, negative memories should present the same distribution, since they are a source of change and learning as well as positive events (Berntsen & Rubin, 2002).

Therefore, life scripts are not only used to explain how people organize and select which parts of their lives are worth telling but can also serve as parameters members of a given culture may use to evaluate their current situation. The timestamps associated with a specific event in the life script may contribute to the feeling that one is "running late" or "not doing what they are supposed to do" (Berntsen & Rubin, 2004). For example, "having kids" and "get married" are events that not only are cited in most of the life script studies but are also among the most cited ones. Although it might be commonly expected that people get married and have kids, if those events occur too soon in life, most Western cultures may view them as negative instead of the positive valence that is usually attributed to these events in life scripts.

The primary goal of this study is to find whether a life script for the Brazilian culture exists and describe its characteristics, focusing on a possible bump for positive events and its location. To achieve this goal, we asked Brazilian undergraduates from different states of the country to inform which seven most important events are expected to happen in the life of a newborn of their gender and culture. We expect to find: a) a high overlap of the events cited by this sample; b) most events reported are positive; c) there is a higher agreement about the estimated age for positive than for negative events; d) most positive events are expected to happen

between the 15 and 30 years of age; and e) a mostly flat distribution for negative and neutral events.

Methods

Participants

Seven hundred and four participants answered an online survey whose link was sent via email to different universities in Brazil. Participants who failed to complete the questionnaire or to answer correctly (e.g., providing personal instead of generic events) were excluded. The final sample had 384 Brazilian undergraduate and graduate students (274 women) aged 18 to 58 (M = 23.6, SD = 5.85). The participants were from 19 different Brazilian states: 79.5% were from public universities, 45.6% studied and worked, 83.1% were single, and 92.2% did not have kids. Regarding family income, 26% of the participants earned less than 3 minimum wages, 29.7% earned from 3 to 6 minimum wages, 17.7% earned from 6 to 9 minimum wages, and 26.6% earned more than 9 minimum wages (when this data was collected, the Brazilian minimum wage was R$ 622). All participants gave their informed consent. The Psychology Ethics Committee at the Universidade Federal do Rio Grande do Sul approved this study.

Instruments and Procedure

After clicking the link, the participants were redirected to the SurveyMonkey platform and read the consent form. Those who agreed with the terms of the study were asked to imagine a newborn of their gender and culture and inform which seven most important events would probably happen in their life, from birth to death (Berntsen & Rubin, 2004). The participants were instructed to think about a generic, hypothetical newborn, not someone they knew. The question was presented as follows.

> This study concerns the expectations about an ordinary life in our culture. Your task is to decide which events are expected to happen during the life of an ordinary person. You should not think about your personal life, but about the life of a typical person from our culture. There are no right or wrong answers. We are interested in your opinion about these issues. Imagine a newborn child with the same gender as you. The child should not be someone you know, but any child, with a common life ahead of them. Your task is to write the seven most important events that are probably going to happen in this child's life, from birth to death. Write the events in the order that you think of them. Give each event a descriptive title.

After that, each event should be rated according to prevalence (on a scale from 0 to 100, how many people will probably experience this event), importance (from 1 to 7, how important this event is), valence (from -3 to +3, how negative or positive this event is), and the estimated age in years when this event would probably happen.

Data Analysis

The events cited by the participants were initially distributed among 66 categories from Scherman (2013), a reanalysis study of the data from Berntsen and Rubin (2004), Bohn (2010), Erdoğan et al., (2008), Janssen and Rubin (2011), and Rubin et al. (2009). The author compared the data from these four studies and compiled the event categories into a new list. Our participants listed 2688 events, which were categorized by two of the authors. New categories were created for the events that did not fit into any of the initial ones. The concordance between the two categorizations was kappa = 0.87. The categories cited by less than 4% of the sample were grouped into the "Others" category (Bohn & Habermas, 2016).

Due to a violation of the homogeneity of the variance principle, we used Welch's t-test to compare events estimated to happen from 15 to 30 years of age, and those estimated to occur before and after this period. After that, the events were divided into groups: those expected to happen until 14 years old, from 15 to 30 years old, and from 31 to 100 years old. The valence, prevalence, and importance measures were normalized, and then, due to the difference in the number of items in the age groups (938 vs. 1368 vs. 382, respectively), we decided to sample 350 events from each group, to make sure the comparisons were valid.

Results

Table 1 depicts the final list containing 38 categories. The frequency of mention of each category shows the high overlap of events the participants cited, which suggests a cultural shared life script for the Brazilian culture.

Table 1
Frequency, mean, and standard deviations for prevalence, importance, age at event, and valence for each category.

		Prevalence		Importance		Age at event		Valence	
Event	Sum	M	SD	M	SD	M	SD	M	SD
Marriage	203	70.76	16.44	5.01	1.33	27.22	2.91	1.44	1.13
Have children	200	72.58	16.82	5.69	1.33	29.53	7.41	1.87	1.17
Begin school	154	85.58	13.76	6.43	0.93	5.22	1.95	2.49	1.02
University	149	52.42	20.1	6.21	0.95	18.74	1.68	2.54	0.82
College graduation	111	46.77	21.32	6.05	0.99	24.04	2.43	2.61	0.78
Go to school	109	81.33	15.88	6.69	0.66	6.28	4.13	2.8	0.52
Get a job/working	100	87.57	15.51	6.34	0.87	20.71	4.97	2.25	1.1
First job	96	88.95	14.58	6.23	1.06	19.4	2.74	2.15	1.03
Begin talking	95	94.35	7.36	6.66	0.69	1.68	1.01	2.8	0.65
Romantic relationships/dating	86	88.72	15.79	5.55	1.23	14.95	4.53	1.86	1.02
Retirement	81	74.90	19.43	5.74	1.05	63.58	5.73	1.59	1.19
Begin walking	81	94.63	9.38	6.64	0.8	1.77	2.91	2.79	0.68
Learning/development	74	89.26	18.44	6.7	0.68	7.53	11.26	2.84	0.5
Have friends	72	87.72	16.76	6.51	0.79	8.4	6.79	2.64	0.78
Start a family	51	76.31	18.23	6.14	0.96	28.06	9.32	2.49	0.76
Finish high school	50	68.46	17	6.34	0.96	17.56	1.64	2.52	0.84
Own death	45	94.36	17.59	5.84	1.67	77.2	14.22	-0.11	2.23
Learn how to read and write	45	81.91	14.08	6.76	0.8	6.31	0.93	2.91	0.47
First sexual experience	40	94.38	10.91	5.83	1.24	15.95	2.05	1.68	1.33
Have a career	39	46.67	24.27	6.33	0.87	32.08	7.23	2.67	0.66
Pass admission exams	39	54.08	21.98	6.05	0.89	17.82	1.05	2.23	1.04
Birthday/special occasions	39	78.64	24.73	4.64	1.5	15.82	20.42	1.74	1.16
Puberty	38	93.47	11.95	6.18	0.93	13.26	2.96	1.58	1.55
Get old	38	71.03	25.87	6.37	0.75	64.05	9.85	1.55	1.81
Family relationships	38	82.05	17.53	6.63	0.71	12.84	24.17	2.45	1.35
Choose a career	37	66.7	27.19	6.57	0.65	18.86	3.68	2.22	1.16
Long trip	36	45.81	26.79	5.28	1.41	23.78	10.92	2.5	0.74
Fall in love	30	90.27	13.57	5.73	1.26	15.23	7.07	1.9	1.32
Other's death	29	95.79	10.89	6.28	1	29	22.33	-1.76	1.83
Own birth	27	94.07	14.68	6.67	0.78	1.63	6.28	2.44	0.97
Financial/personal independence	27	70.33	20.08	6.22	1.01	22.85	6.97	2.52	0.8
Parents' death	24	95.29	6.67	6.38	0.97	49.46	11.65	-2.5	1.29
First kiss	24	94.96	12.69	5.17	1.13	12.96	1.55	1.63	1.01
Grandchildren	22	65.91	19.8	5.45	1.34	60.64	12.13	2	1.11
Buy a house	21	55.48	18.09	5.33	1.32	33.38	5.57	2.43	0.81
Kindergarten	18	77.44	18.42	6	1.33	4.17	3.84	2.28	1.07
Self-evaluation	17	63.53	31.19	6.29	1.61	38.53	19.05	2.18	1.67
Others	303								

Participants were asked about the seven most important events that would probably happen in the life of a generic person from their same gender and culture, and to inform how many people out of 100 would most likely experience that event. The high means for importance (M = 6.03, SD = 1.19) and prevalence (M = 76.63, SD = 23.3) were like those found in previous studies (Janssen & Haque, 2018; Janssen & Rubin, 2011), indicating that participants understood their task and provided the expected kind of information.

Participants rated the events on a scale from -3 to +3, in which -3 was very negative, +3 was very positive, and 0 was a neutral event. Of the 38 final categories, 34 had positive mean scores, whereas three had negative

scores. Only death-related categories were considered negative in this sample. Of the total number of events, 2302 were considered positive (85.6%), 24 were considered neutral (9.4%), and 132 were considered negative (4.9%). This favors the hypothesis that life script events are mostly positive (Rubin & Berntsen, 2003). Also, we found a higher agreement around the estimated age for positive than for negative events, with a smaller *SD* for positive events ($M = 6.38$ vs. $M = 16$). Also, while positive events ($M = 6.21$, $SD = 1.01$) were rated as more important than negative events ($M = 5.59$, $SD = 1.55$), positive events ($M = 75.5$, $SD = 23.5$) were not rated as more prevalent than negative events ($M = 89.7$, $SD = 15.8$). These results differ from those from other studies (Berntsen & Rubin, 2002; Janssen & Haque, 2018; Janssen & Rubin, 2011; Janssen et al., 2014), which found participants rated negative events as more important and prevalent than positive events.

The life script bump is the period when most of the positive events are expected to happen and is usually estimated between 15 and 30 years of age. As expected, we found different distributions for positive, negative, and neutral events across the lifespan, similar to what is usually reported in life script studies. While most of the positive events happened before the age of 30, the negative and neutral events showed an almost flat distribution (Figure 1). More than half of the positive events (51.9%) are expected to happen between the ages 15 and 30, whereas 36.9% are estimated to occur until 14 years of age. More than half of the negative events (51.5%) are expected to happen from age 31 onward. The percentage of positive events expected to happen before the bump period is considerable and can be compared to the percentage of positive events expected to the bump period in a Greenland sample (Scherman et al., 2017), which was 38%.

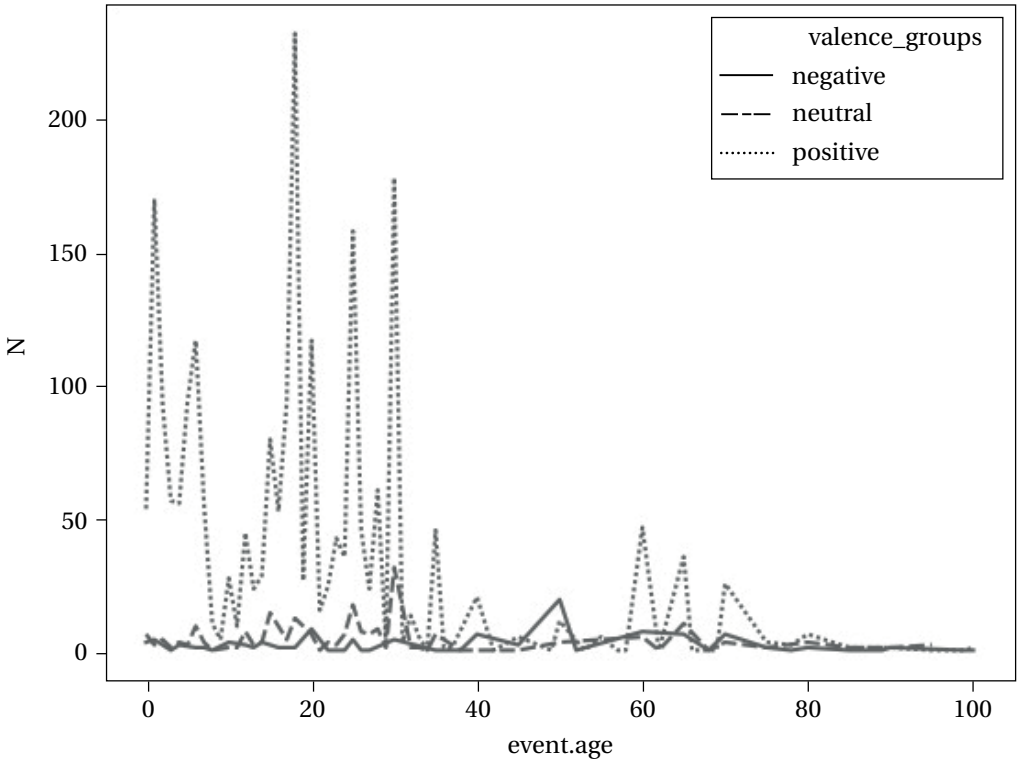

Figure 1
Distribution of the events divided by valence through the lifespan.

Because of this considerable number, the events in the bump period (N = 1368) were compared to the events before and after this period (N = 1320). Welch's t-test for independent samples showed that the events outside the bump were considered more common ($M = 70.18$ vs. 83.33; $t(2662{,}977) = 15.341$; $p < 0.0001$) and more important ($M = 5.86$ vs. $M = 6.22$; $t(2681, 855 = 7.973$; $p < 0.0001$). Regarding the valence, no significant difference was found.

After further analyzing the characteristics of the events on these periods of life (before, during, and after the bump period), our results presented similarities between the 15 to 30 years and the rest of the lifespan, and differences between those periods and childhood (until 14 years old). These groups will be called "childhood" (from 0 to 14), "early adulthood" (from 15 to 30), and "adulthood" (from 31 to 100).

The valence, prevalence, and importance measures were compared across the three groups. According to the Bonferroni correction, there were significant differences in valence across all groups, with childhood events being more positive (M = 0.26), followed by early adulthood events (M = 0.6), an adulthood events being less positive than the others (M = -0.57) (Figure 2). Childhood events were considered more important (M = 0.31) than early adulthood (M = -0.07) and adulthood (M = -0.14) events, with no significant difference between the last two (Figure 3). The prevalence comparison showed a similar result, with childhood events being considered more common (M = 0.55) than early adulthood (M = -0.23) and adulthood (M = -0.22) events, which had no significant difference (Figure 4). Table 2 shows the ANOVA values.

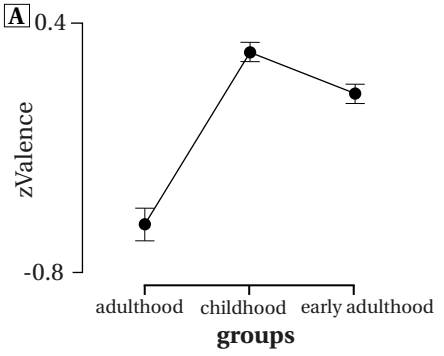

Figure 2
ANOVA graphic of valence measures.

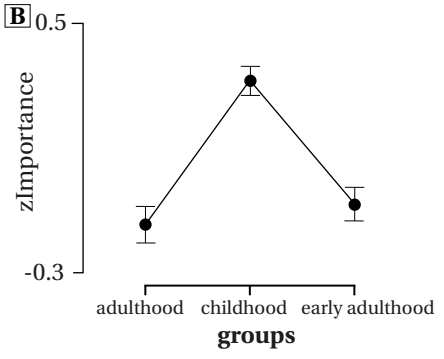

Figure 3
ANOVA graphic of importance measures.

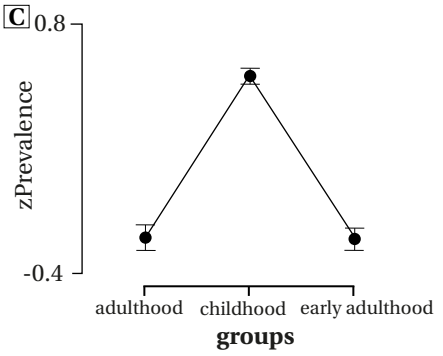

Figure 4
ANOVA graphic of prevalence measures.

Table 2
Summary of ANOVA results for age groups.

	Cases	Sum of Squares	df	Mean Square	F	p
Valence	groups	131.3	2	65.656	59.32	<.001
	Residual	1158.9	1047	1.107		
Importance	groups	43.49	2	21.743	23.42	<.001
	Residual	972.01	1047	0.928		
Prevalence	groups	142.3	2	71.161	78.02	<.001
	Residual	955	1047	0.912		

Discussion

Although the classic bump period had the most positive and total number of events, it was the period before the bump that held the most positive, important, and common events. The events from the childhood period were significantly more distinctive than the events estimated to happen for the remainder of the lifetime. None of the previous studies from different cultures investigated how the events from the bump period could be characterized comparing to other parts of the lifespan. The bump is considered to be the period that accumulates more positive events. In our sample, the period before the bump, although not gathering as many events, presented events considered more positive, important, and common than the events on the bump period.

The also high percentage of events expected for the first decades of life is similar to findings from Erdoğan et al. (2008). The authors compared life scripts generated when participants were asked to inform the most important events expected to happen in the life of a newborn and the most important events that probably had occurred in the life of an older person. Both life

scripts produced similar bumps on the second and third decades of life, but the bump generated for the newborn started earlier, while the life script for the older person had more events in the fourth and fifth decades than expected. Moreover, Ottsen and Berntsen (2014) found an early beginning for the bump due to religious events that usually take place at childhood in Qatari culture, but also biological and education categories ("begin walking", "begin school", and others). Similarly, the categories of events expected to happen before 14 years of age most cited by this sample were "begin school", "going to school", "begin talking", and "begin walking", all of them referring to events that are common not only to Brazilian culture but are also present in the life scripts of different cultures (see Scherman [2013] for a review).

These results can lead to the questions: Is the bump characterized only by the number of events from this period? Are the events from the bump period somehow different from other events? This sample considered the events from childhood and early teenage years as more important and prevalent in the population than those from adolescence and early adulthood. One possible explanation for these results is the characterization of the sample. The life script these participants produced is like those provided by other samples, as can be shown by the three most cited events: "get married", "have kids", and "start school". Although participants are aware of the critical transitional events that are encouraged by their culture, they had not experienced those events yet. The mean age of our sample is 23.6 years, more than 80% of our participants are not married, and more than 90% have no kids.

It is possible that the transitional events from childhood to adolescence were rated as more important, positive, and common because these were already experienced and evoke not only a semantic memory but also an autobiographical memory. The stage of learning and beginning to be less dependent on parents can also be a period of outstanding experiences, whereas early adulthood is the stage in which most of our participants are living now. Although sample age tends not to affect life script events and the related memory (Janssen & Rubin, 2011), taken together, the mentioned characteristics of the sample may have some influence on how participants rate the events. Janssen and Haque (2018) investigated the sources of each event that participants reported. The two most cited sources for the life script events were the experiences of relatives and personal experiences. These results challenge the view that the life script knowledge is only semantic, suggesting that personal memories can also play a part in what events people choose to report and how they are characterized.

Another issue regards the method used to gather life events. In their review, Koppel and Berntsen (2015) observed that different cueing methods in autobiographical memory studies generate different kinds of bumps, which vary in size and location. According to them, an account for the bump has to explain, or at least leave room for these variations. Their findings are supported by another review (Munawar, Kuhn, & Haque, 2018) that shows differences in age range for the bump when using different methods for evoking memories. The distribution of events in this study has some similarities with the distribution generated by the cue word method, with a bump that starts and has its peak earlier. In the cue word method, participants have to remember events from their personal life in response to emotional or neutral words. The method used in our study is like the important memories method, in which participants are asked to inform their most important or vivid memories. This method is usually responsible for generating the classic bump distribution that starts around 15 years of age.

The cultural life script account for the reminiscence bump states that the high number of memories recalled from 15 to 30 years of age in autobiographical memory studies reflect the idealized script of a life that people from the same culture share, as can be observed in the important memories method (Koppel & Berntsen, 2016). According to Janssen (2019), the bumps found in these studies using the cue word and the important memories method are different in size and temporal location because of age-related changes in cognitive abilities. The author states that during the second decade of life people have optimal cognitive abilities that allow them to better bind temporal, spatial, and personal information during encoding. But, according to the results of this study, the idealized events expected to happen before 15 years of age are more common than the rest, which could explain the earlier bump found in cue word studies.

Bohn, Koppel and Harris (2017) investigated the creation of a bump for life scripts when participants were asked to provide different numbers of events. The authors compared four samples, each of them asked to inform either four, seven, 15, or 25 most important events expected to happen in the life of a

hypothetical newborn of their same gender and culture. The results showed that the more events were sampled, the earlier was the bump, which was explained assuming that participants started providing more common and unimportant events when asked for a larger number of them. However, neither importance nor prevalence measures were collected for this study. Our analysis of those measures shows the opposite: childhood events were rated as more important and prevalent, which is evidence against this explanation.

The life script as an explanatory model for the bump focus on the retrieval mechanisms involved in autobiographical remembering (Koppel & Berntsen, 2015), suggesting that the cultural knowledge about how life should happen is responsible for influencing which events of their personal stories are easier to remember. The life script is not supposed to be an accurate portrait of how life is but an idealized, positive-biased representation of the expectations of a culture. In this sample, participants rated events from the beginning of their lifespan as more important, positive, and common than the events from other periods of life. That may result from the idealized aspect of the life script. Although the bump period is characterized by social transitional events that usually have consequences on the roles that people play in different life stages, childhood is usually seen as a time of innocence and happiness, which is not always true. It is possible that the early bump found in this sample reflects the Brazilian middle-class view of childhood and growing up.

Final Considerations

This study describes a cultural life script generated by a Brazilian sample, including measures of valence, prevalence, importance, and age of the event. Our results showed that, although the participants are mostly young adults, the distribution of the events expected to happen in the lifespan of a common person resembles the ones described by other autobiographical memory studies (Berntsen & Rubin, 2004; Bohn, 2010; Erdoğan et al., 2008; Janssen et al., 2011; Rubin et al., 2009). Moreover, this study investigated the characteristics of the bump events and compared them to the events that happened before 14 years of age and after 30 years of age. We found that, although most of the events generated by this sample were expected to happen from 14 to 30 years of age, the events from the childhood period were considered more positive, important, and common. This finding raises important questions about the accounts of the reminiscence bump in cultural life scripts. Although the reminiscence bump in autobiographical memories is more pronounced in participants aged 40 years or older, the cultural life script is shared by all members of a given culture and is constructed since childhood (Rubin & Umanath, 2015).

Koppel and Berntsen (2015) discussed the different locations for the bump found in studies investigating autobiographical memories and proposed that the cueing method used explained this variation. However, the variation in the reminiscence bump location has yet to be investigated in studies about cultural life scripts. It is important to emphasize that while the 14 to 30 years of age threshold has been widely used across studies, the reminiscence bumps distribution has the form of a continuous curve, thus the exact age range selected by different authors to place the bump is often subjective (Koppel & Berntsen, 2015). We proposed an explanation to our findings that considers the influence of the age of the sample and the life experiences they have most likely had or not in the life script events they generated.

We found two domains of mnemonic representation about the unfolding of one's life and the evaluation they make of it. One domain is personal or ideographic, referring to the repertoire of experiences of individual life history. The other domain might be considered normative, encompassing a scheme that organizes which events are expected to happen as a rule with someone and with their peers in their social group and cohort. The model of life scripts we adopted emphasizes an articulation in individual cognitive processes of informational contexts as diverse as autobiography, contemporary history, cohort accounts, and culture as a means for a shared model of life history. By articulating the ideographic and the normative of life history, this approach supports the development of research and innovative applications such as multicultural and transcultural studies of life histories, health interventions addressing evidence-based personal narratives, creation of developmental assessment methods based on different ideographic aspects of these narratives, and above all, an assessment of autobiographical memory tasks sensitive to both the ideographic and normative content of life history.

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Esta pesquisa foi financiada pelo Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

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Received 06/03/2020
Approved 07/30/2021

Recebido 03/06/2020
Aceito 30/07/2021

Recibido 03/06/2020
Aceptado 30/07/2021

How to cite: Felinto, T. M., Rocha, G. B., Ávila-Souza, J., & Gauer, G. (2022). Brazilian Life Scripts: Reminiscence Bump Location and Characteristics of Life Events. *Psicologia: Ciência e Profissão, 42,* 1-12. https://doi.org/10.1590/1982-3703003239089

Como citar: Felinto, T. M., Rocha, G. B., Ávila-Souza, J., & Gauer, G. (2022). Roteiro de Vida Brasileiro: Localização do *Reminiscence Bump* e Características dos Eventos de Vida. *Psicologia: Ciência e Profissão, 42,* 1-12. https://doi.org/10.1590/1982-3703003239089

Cómo citar: Felinto, T. M., Rocha, G. B., Ávila-Souza, J., & Gauer, G. (2022). Guiones de Vida de Brasileños: Localización del *Reminiscence Bump* y Características de los Eventos de la Vida. *Psicologia: Ciência e Profissão, 42,* 1-12. https://doi.org/10.1590/1982-3703003239089