

# Identity Formation and Autobiographical Memory: Two Interrelated Concepts of Development

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**Abstract**—The aim of the present paper is to investigate the interdependency among ego-identity status, autobiographical memory and cultural life story schema. The study shows considerable differences between autobiographical memory characteristics and “family script”, which is typical for participants (adolescents, M age years = 17.84, SD = 1.18, N = 58), with different ego-identity statuses. Participants with diffused ego-identity status recalled fewer autobiographical memories. Additionally, this group of participants recalled fewer events from their parents’ life. Participants with moratorium ego-identity status dated their first recollections to a later age than others, and recalled fewer memories relating to their childhood. Participants with achieved identity status recalled more self-defining memories and events from their parents’ life. They used more functions from the autobiographical memory. There weren’t any significant differences between the foreclosed identity status group and the others. These findings support the idea of a bidirectional relation between culture, memory and self.

**Keywords**—Autobiographical memory, autobiographical narrative, cultural life script, ego-identity

## I. INTRODUCTION

THE existence of ego-identity is an indisputable fact of human experience. Despite obvious difficulties in its definition, ego-identity may be understood as the conscious sense of oneself as a distinct continuous entity. Since E. Erikson [1] scholars use the term to describe an essential core of a human being and consider achieving identity as the main developmental task of adolescence. According to Erikson, optimal identity is experienced as a psychological well-being. In later sixties James Marcia postulated four ego-identity statuses [2]. According to Marcia there are two dimensions in the process of identity formation: exploration and commitment. Exploration constitutes the active seeking of alternative possible identity elements. Commitment represents internalization of specific values, beliefs and goals. The identity-diffusion subject (low exploration and low commitment) is not much concerned about his future: he has an infantile personality. The identity – foreclosure subject (low exploration and high commitment) expresses commitment without overcoming a crisis. His self-identification conforms to the way his parents and others intended him to be with no questioning. The identity-moratorium subject (high exploration and low commitment) is in the crisis period of active monitoring of social opportunities, experiments with adult roles for future and acts relatively free.

The identity-achievement subject (high exploration and high commitment) has overcome a crisis period and has made a decision concerning who and what he is on his own terms.

Since then a productive body of research has reported empirical links between ego-identity status and numerous variables [3]. Identity achieved persons have shown high levels of achievement motivation, self-esteem, internal locus of control, interpersonal intimacy, ability to function well under stressful conditions, moral reasoning and also, use more rational intellectual strategies. They have demonstrated low levels of neuroticism and low use of defense mechanisms. Moratorium is associated with presumably analytic cognitive style and high levels of anxiety. Parents of moratorium adolescents have emphasized independence in their child-rearing patterns. Generally families of both identity achieved and moratorium adolescents combined both individuality and connectedness in family relationships. Foreclosure individuals are characterized by high levels of conformity, prejudice, closeness to new experiences, external locus of control and low ability to think analytically. Diffuse individuals have shown high levels of neuroticism, dependent style of decision-making, external locus of control and low levels of self-esteem, autonomy and sense of personal integrative continuity over time. They reported low levels of attachment to parents.

Despite the extensive empirical work that has been done on the subject, there is still much to learn about. In our opinion, most research into the area ignores the cultural origins of identity development and its dynamic nature. This is especially true in regard to the problem of subjective temporal continuity of self. In other words, identity does not contain a given proportion of exploration and commitment strategies - it is a personal trajectory of development in the context of the whole life including remembered past and anticipated future. From that perspective it is obvious that one's sense of self depends in a fundamental way on memories of one's past. Klein and colleagues cited Crice (1941), who suggested that «self is to be defined in terms of memory» [4]. In other words, identity over time is a function of continuity of memories. Speaking about memory as a substratum of identity we definitely mean not all memory structures, such as procedural or semantic memory. We focus on specific type of memory - autobiographical memory.

Autobiographical memory is a “self-memory system” [5]. It means that autobiographical memory has a bidirectional relation with self. The way one remembers their past partly depends on the kind of person they regard themselves to be, and memories alter on the basis of changes in self [6]. It is proved that autobiographical memory has identity-related functions [7, 8]. Autobiographical memory is organized on two principal levels. Though people have thousands of memories,

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very few of these would be included in a story of one's life and hence would make an impact on identity formation. S. Bluck and T. Habermas termed those memories "truly autobiographical memories" [9]. "Truly autobiographical memories" cannot be a collection of single memories occasionally entering the mind. While in everyday life people recall isolated episodes from their past (micro structural level), there is an integrated form of autobiographical memory. It is a life story schema (macro structural level). Bluck and Habermas introduced the term life story schema as the mental organization of one's past that models one's experience with life. Life story schema used to produce (among others) autobiographical narratives. It is important to note that life story schema is not limited to oral or written life narrative. It may be expressed in different forms. We have developed an original method of operationalizing such a mental construct – Life Line (see below).

D. Polkinghorne wrote that "the question of interest...is whether the narrative scheme is an innate structure of consciousness, like the grammatical structure suggested by Chomsky, or a learned linguistic form, a cultural product like haiku poetry" [10]. We argue that successful identity development needs to be based on a well-shaped life story schema. In turn a life story schema necessary requires a broader representation of what human life is like and how people create their lives. All those representations are cultural. Those internalized representations support the individual selection of meaningful personal directions through the process of exploration and commitment. They are recourses for building one's own unique sense of self. This view is closely related to the narrative model of identity formation, which emphasizes the narrative of one's own life story to be the creation and foundation of identity.

We suggest that the main factor that determines the macrostructure of autobiographical memory is called "cultural life script". While life story schema refers to inner psychological representations, cultural life script is distributed between subject and society. D. Berntsen and D. Rubin define cultural life script as a series of events expected to take place in a specific order at specific times in a prototypical life course within a given culture [11]. Recent research suggests that cultural life script determines the content of autobiographical memories. Beliefs on how the human life should be organized, lived, remembered and presented to others paradoxically make our personal significant recollections typical. Previous study findings have shown that life script typicality increases with age, as does autobiographical memories typicality [12]. The content of personal life stories is constrained by cultural factors that influence what people consider as important to remember. In addition, it was shown that the ability to produce a coherent life story is closely related to the acquisition of a typical life script. Though studies of autobiographical memory characteristics have shown significant differences across cultures [13], there is no considerable difference in recollection configuration within one culture. These results prove that cultural life scripts might be considered the universal principle for the organization of the macrostructure

of autobiographical memories. How does this organizational principle work?

In the present study we investigated cultural life scripts as a cultural tool which determines autobiographical memory development and identity development. We hypothesized that there are three types of cultural life scripts:

1. "family script" - the degree of adaptation to a way of living acceptable to one's parents, close relatives, ancestors;
2. "model script" - the degree of normative ideas about life patterns from external, common sources (literature, cinema, media, etc.);
3. "typical script" - the degree of assimilation of the contents of the "ordinary life" in this community.

Thereby, we supposed that being well informed about family history (1), cultural conventions of different life scripts (2) and expected events and their age norms in a typical life (3) correlates positively with high level of autobiographical memory development. What parameters can be used as a developmental index of autobiographical memory? There is a list of parameters we analyzed in the present study:

- availability of autobiographical experience for retrieve (memories in general and memories of the different life periods);
- variety of themes in which recollections are united;
- balance of positive and negative memories;
- balance of typical and original memories;
- polyfunctionality (functional variety) of autobiographical memory.

It was shown that autobiographical memory as a "self-memory system" is a "database" for personal identity foundation [5; 6; 9]. Taking this fact into account, we hypothesize that degree of cultural life scripts assimilation and level of autobiographical memory development might influence on ego identity status. Moreover, we suggest that participants with different statuses of identity might have significant differences in the characteristics of autobiographical memory. More specifically, we expect participants with the diffused identity status to recall fewer events in general, fewer self-defining memories, and to recall fewer events of their parents' life ("family script"). Also, we expect those participants to score lower on functional variety of autobiographical memory when compared to participants with other identity statuses (foreclosed, moratorium, achieved). We hypothesize that participants with foreclosed identity status recall the biggest number of their parents' life event and thus, they have adopted one of the types of cultural life script – "family script", better than all the other participants. We expect participants with moratorium identity status to recall more autobiographical events because it is a potential material for the construction of a new identity.

We expect participants with achieved identity status to show more functional variety of autobiographical memory, to recall more events of different periods of life and to include more self-defining memories than others.

Therefore, the main goal of the present study is to examine the correspondence among identity status, autobiographical memory and cultural life story schema.

## II. METHOD

### A. Participants

We focused on a group of late adolescents (university students, M age years = 17.84, SD = 1.18, N = 58) and their parents (M age years = 42.9, SD = 4.99, N = 58). Students were compensated with course credit.

### B. Measures

The presented empirical part of study was based on analysis of the following central measures:

- Objective Measure of Ego Identity Status (OMEIS scale), developed by Adams [14];
- Life Line graphical method [15] was used to examine parameters such as, availability of recollections (number of memories listed, in general and according to a certain period); variety of themes; proportion of positive and negative memories; proportion of typical and original memories; emergence of gaps or peaks of recollections in different periods of life; the age of the first recollection;
- Functions of Autobiographical Memory (FAM) questionnaire [16];
- "Family Script" that shows how well participants are aware of their parents' life events.

### C. Procedure

At the first stage of the study, adolescents were asked to draw a Life Line, they were given a standard horizontal sheet of paper with an arrow in the middle, with the instruction: "Put here the most memorable events of your past, noting the age when they happened and the emotion you experienced". They were asked to draw a Life Line both for themselves and for their mothers or fathers (with the instruction to recall as many important events from the life of their parent as they could). Participants were given 30 minutes to do this task. Also, they filled FAM and OMEIS scales.

At the second stage of the study adolescents collected Life Lines from their parents and brought them to the researchers. We analyzed the similarities and differences between their own Life Lines, hypothetical Life Lines (filled out by adolescents with their parents' life events) and Life Lines obtained from their parents ("family script").

The analysis of variance (ANOVA) was used to test for significant differences in autobiographical memory characteristics among 4 groups with different identity statuses (diffused, foreclosed, moratorium, achieved).

## III. RESULTS

In accordance with our predictions, participants with diffused identity status recalled fewer memories of their past than others. A significant difference was found in the number of positive recollections (mean 8.5 Vs. 13.16;  $p=0,033$ ;  $F=4,799$ ), the number of self-defining memories (mean 1.2 Vs. 3.53;  $p=0,011$ ;  $F=6,981$ ), the number of self-changing memories (mean 0.33 Vs. 1.45;  $p=0,05$ ;  $F=4,011$ ) and the number of memories with content of social role changing (mean 0.67 Vs. 2.37;  $p=0,017$ ;  $F=6,041$ ).

Additionally, participants with diffused identity status had fewer similarities between their hypothetical parents' Life Line and real Life Line drawn by their parents (mean 3 Vs. 5.41;  $p=0,027$ ;  $F=5,137$ ).

Participants with moratorium identity status dated their first recollections to a later age than others (mean 5.67 Vs. 3.27;  $p=0,05$ ;  $F=3,924$ ) and recalled fewer memories related to their childhood (mean 3 Vs. 5.76;  $p=0,05$ ;  $F=3,902$ ).

Generally, participants with achieved identity status recalled more self-defining memories (mean 5.57 Vs. 3.14;  $p=0,05$ ;  $F=3,796$ ), and more events of their parents' life (mean 6.43 Vs. 3.24;  $p=0,001$ ;  $F=13,696$ ). They also, were able to use a wider variety of functions of autobiographical memory (FAM questionnaire scores, mean 24.14 Vs. 20.22;  $p=0,046$ ;  $F=4,186$ ).

We couldn't reveal any significant differences between the foreclosed identity status group and the others, because in our study only one participant had foreclosed identity status.

## IV. DISCUSSION

In accordance with our hypothesis, we found some significant differences in the characteristics of autobiographical memory among 4 groups of participants with a different identity formation. Participants with diffused identity status generally had lower quantitative and qualitative parameters of autobiographical memory. As stated earlier, during this period adolescents may not experience a need to explore alternatives and try different social roles. In our opinion, they are reluctant to actively cooperate with their past and to adopt cultural scripts, such as, "family life script". The results show that they remembered only some events from their parents' life, in contrast to participants with achieved identity status who had adequate knowledge of their parents' life stories.

From our theoretical perspective, "family script" as a type of cultural life script is a significant psychological factor that determines autobiographical memory development. Autobiographical memory has a social (and more concretely – parental) foundation [15, 17]. Life script shapes the way people remember themselves and create their own life story in accordance with their expectations of typical life events from an acquired scenario. In other words, "family script" is a sketch of individual autobiographical narrative. During identity formation and autobiographical memory development, original recollections added to this sketch, make it into a complete individual life story. Thus, participants with achieved identity status may recall events of their parents' life fluently because this script is assimilated and used in order to create their own narratives.

On average, participants who, at the time of the study, were experiencing a psychosocial moratorium, dated their first recollection to the age of 5.67. According to recent researches, the average age of the earliest recollection is culturally dependent and ranges from 2.1 years (Maori) to 4.1 years (Chinese) [13]. It was shown that the ability to recollect early memories positively correlates with such characteristics as high self-esteem, self-control and low levels of internal conflict. Therefore, we suppose that a later age of the first

recollection and fewer childhood memories indicate high levels of internal conflict during identity crisis and moratorium. The “loss of childhood” phenomenon was founded on the basis of the analysis of the autobiographical memories of individuals, who were in a severe crisis [16]. This phenomenon can be justified through the proposal that those individuals regard their childhood memories to be insignificant and irrelevant to their current situation. We consider this to be an interesting result, which can be used for further investigations.

In conclusion, results of the present study support the hypothesis of bidirectional relation between autobiographical memory and identity formation. On the one hand, autobiographical memory produces a coherent sense of a personal self, on the other; the way of remembering one’s personal past partly depends on their current ego-identity status.

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