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Locating the Self in Autobiographical Memories: A New Approach to Analysis

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Abstract

Systematic cross-cultural variation in autobiographical memory has been reported in numerous previous research. Variations have often been interpreted as mirroring differences in culturally diverging self-conceptions, implying that content characteristics of autobiographical memories can be used as indirect measures of self. However, a majority of these characteristics rest on the traditional independence vs. interdependence dimension, and might only be suitable for typically Western and Eastern populations. Other content characteristics could be more instrumental for “locating” the self in autobiographical memories, such as the incidence of actions, mental states and reflections. We therefore propose a new approach to content analysis of autobiographical memories. The approach is theoretically grounded in Kagitcibasi’s (2005) model of autonomy and relatedness and Bruner’s (1987) distinction between landscape of action and landscape of consciousness. Operationalizing these concepts and building on empirical work of Qi Wang (e.g. Wang, 2001), we present a four-step coding system for content analysis of autobiographical memories. In the first step, memories are divided into separate units of analysis. In the next three steps, these units are placed within a number of different categories, and that with regards to who the units’ subjects are, what these subjects are doing or experiencing, and whether they are thereby showing any signs of agency and/or relatedness. Ultimately, the proposed coding system aims to capture how the self is present, and presented, in autobiographical memory in a more nuanced way, compared with previous research. Hence, the system could be applicable for use in studies with a variety of culturally diverse populations.

Introduction

We are what we remember from our personal past, and we remember our personal past in light of who we are. The intuitive, close relationship between autobiographical memory and self has been identified in various areas of psychology, such as cognitive psychology (Conway, 2005; Wilson & Ross, 2003), personality psychology (McAdams, 2001; Woike, Gershkovich, Piorkowski, & Polo, 1999), and cultural and cross-cultural psychology (de la Mata, Santamaría, Hansen, & Ruiz, 2014; Demuth, Chaudhary, & Keller, 2011). In the latter, special attention has been given to the role culture plays in the relationship between autobiographical memory and self. Indeed, if autobiographical memory and self are closely intertwined, and if self is fundamentally shaped by cultural context (e.g. Kagitcibasi, 2007), then cross-cultural differences in autobiographical memories are to be expected. These differences have firmly been established in previous research. More concretely, memories of participants from a Western background, primarily the United States (Wang & Conway, 2004; Wang, 2001, 2006), but also Portugal (Ho, Chen, Hoffman, Guan, & Iversen, 2013) or Australia (Jobson & O’Kearney, 2008), have been found to be rather long, specific, emotionally elaborate, autonomous and self-centred. In contrast, East Asian participants have repeatedly reported brief and emotionally neutral memories, centred on recurrent, social events (Ho et al., 2013; Jobson & O’Kearney, 2008; Wang & Conway, 2004; Wang, 2001, 2006). These content characteristics of autobiographical memories have been interpreted as “revealing” the participants’ predominant self-orientation, i.e., that the Western self is independent and focused on own internal world; thoughts, feelings and motives, while the East Asian self is interdependent and highly attentive to thoughts, feelings and motives of others (Markus & Kitayama, 1991). According to this interpretation, content characteristics of autobiographical memories can be regarded as indirect measures of self, at least with respect to the degree of independence and interdependence. It also means that self is in a way present, and presented, in autobiographical memories, and moreover, that it is possible to empirically “locate” it therein. However, describing the self in autobiographical memories in terms of independence or interdependence could be relevant for Western or East Asian populations only, while different underlying dimensions might be applicable in other samples. In order to extend the applicability of the existing coding systems, we propose a new approach to content analysis of autobiographical memories in this paper. The approach is based on Kagitcibasi’s (2005) model of autonomy and relatedness, Bruner’s (1987) distinction between landscape of action and landscape of consciousness, as well as previous research in the area, primarily by Qi Wang (Wang & Conway, 2004; Wang, Leichtman, & White, 1998; Wang, Shao, & Li, 2010; Wang, 2001, 2006). In the following, we first justify the employment of earliest childhood memories in cross-cultural investigations. Then, we shortly review measures most commonly used for content analysis of autobiographical memories. Finally, we describe a four-step coding system that we have developed on the basis of the above, accompanied by a few examples.

Earliest childhood memories in cross-cultural research

Autobiographical memory comprises a great amount of recollections from individual’s life, and these can be empirically probed in a number of ways. Some cross-cultural studies have employed a simple cue word technique (Marian & Kaushanskaia, 2004; Rubin, Schrauf, Gulgoz, & Naka, 2007) or free recall of any autobiographical memories that come to mind (Conway, Wang, Hanyu, & Haque, 2005; Wang & Conway, 2004). Other authors have asked their participants for emotionally charged memories, such as memories of times when the participants felt especially good or bad about themselves (so-called self-esteem memories; Ivcevic et al., 2008) or memories of the most wonderful or joyful experiences of their life (memories of peak experiences; Ho, Chen, Hoff-
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man, Guan, & Iversen, 2013; Ho, Chen, & Hoffman, 2012). Memories’ high meaningfulness (Antalíková, Hansen, Gulbrandsen, de la Mata, & Santamaría, 2011; Demuth et al., 2011; Wang, 2008) and high relevance for self-definition (Jobson & O’Kearyne, 2008) have also been used as cues for autobiographical memory recall. However, the most popular autobiographical memories investigated in cross-cultural research have undoubtedly been earliest childhood memories (Bender & Chasiotis, 2010; de la Mata, Santamaría, Hansen, Ruiz, & Ruiz, 2011; Demuth, Abels, & Keller, 2007; Fitzgerald, 2010; MacDonald, Uesiliana, & Hayne, 2000; Mullen, 1994; Wang et al., 1998; Wang, 2001, 2006). The reasons for this popularity are both theoretical and methodological. First, reports of earliest childhood memories, specifically of their age, offer important insight into the phenomenon of childhood amnesia (Wang, 2003). Second, and more important for the current study, earliest childhood memories are probed by a simple, temporal marker (i.e. earliest) that is easily recognizable in most cultural contexts, in contrast to cue words (e.g. summer, bride) or emotional states (e.g. self-esteem), which could vary in their respective cultural relevance and salience. Moreover, asking for self-defining memories reflects the traditionally Western emphasis on self-definition and self-reflection, as well as on autobiographical memories that are highly self-focused (Röttger-Rössler, 1993; Wang & Brockmeier, 2002). Therefore, we maintain that investigation of earliest childhood memories involves a potentially low risk of cultural bias, which makes these memories best suited for cross-cultural research.

Self in the content of autobiographical memories

A variety of coding categories for analysing autobiographical memories exist in the cross-cultural literature. The degree of emotionality expressed in the memory, for instance, can be represented by the number of spontaneous mentions of emotional states, or simply by coding the memory as positive, negative or neutral (de la Mata et al., 2011; Ho et al., 2013; MacDonald et al., 2000; Mullen, 1994; Wang & Conway, 2004; Wang, 2001). A specificity variable distinguishes between memories describing unique, one-time events (specific memories) and memories depicting recurrent episodes (general memories; de la Mata et al., 2011; Ho et al., 2013; Wang & Conway, 2004; Wang, 2001, 2006). Another commonly used content variable is autonomous orientation, which counts all indications of participant’s autonomy, e.g. when the participant refers to personal likes and dislikes, personal evaluations and opinions, and to being in control or opposition (Antalíková et al., 2011; de la Mata et al., 2011; Jobson & O’Kearney, 2008; Wang & Conway, 2004; Wang, 2001, 2006). Ultimately however, the majority of coding categories tap into the dimension of independence vs. interdependence, such as the other-self ratio (the ratio between the number of mentions of other people and the number of mentions of oneself), memory theme or focus (most often coded as either individual or social), interaction scenarios (number of instances that involve social interactions or group activities), or number of other people referred to in the memory (Antalíková et al., 2011; de la Mata et al., 2011; Ho et al., 2013; Jobson & O’Kearney, 2008; Wang & Conway, 2004; Wang, 2001, 2006). Therefore, we will begin the argumentation for our methodological approach by addressing this dimension.

First of all, the prominence of the independence vs. interdependence dimension in the autobiographical memory coding systems is not surprising. This dimension has been commonly used as an explanatory construct for cross-cultural differences in various areas of psychological functioning (Cross, Hardin, & Gercek-Swing, 2011). However, some authors have challenged this tradition by proposing two underlying dimensions instead; one of agency, extending from autonomy to heteronomy, and one of interpersonal distance, extending from separateness to relatedness (Kagitcibasi, 2005, 2007).

According to this model, an individual can be, for example, highly agentic (autonomous) while maintaining relatedness to others. We thus argue that it should be possible to capture any combinations of these characteristics in the analysis of autobiographical memories too. Moreover, we believe that a more rigorous definition of autonomy, or high agency, is necessary, compared to the one provided in the autonomous orientation variable above. Only explicit expressions of control over a situation, or of a concrete goal or intention, should be counted in such a score. Likewise, it is important that not only oneself, but also all the other people in the memory can be described as acting in an autonomous or heteronomous way, or as separated from or related to others.

The second main point in our argumentation relates to the emotionality variable. Describing an autobiographical memory as high or low on emotional intensity is important, given the culture- and gender-specific socialization of emotion (Davis, 1999; Fivush & Wang, 2005). However, people typically depict themselves (and others) in their memories not only as feeling something, but also as thinking, knowing, or wanting something. We suggest coding the memories’ content for a variety of internal states, such as cognitive, emotional and intentional, instead of focusing on only one type. Incidence of references to internal states, the “landscape of consciousness” (Bruner, 1987), can this way be compared to incidence of references to actions, the “landscape of action”.

Finally, we know from our previous research (Antalíková et al., 2011; de la Mata et al., 2011, 2014) that participants sometimes evaluate, or reflect upon, events they are describing in their autobiographical memories. Wang and Conway (2004) coded these instances as “Reflective comments”, referring to “the number of comments participants made that entailed their reflections on mores or world views deriving from a memory event” (Wang & Conway, 2004, p. 921). Our operationalization of participants’ reflection in the memory is both more and less conservative than that. On the one hand, we aim to distinguish between participants’ reflections involving cognitive, emotional and intentional processes, just as we do with respect to references to internal states in general. On the other hand, we propose to count not only reflections on mores or world views, but all statements in which participants relate to their memory from their current vantage point.
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In this section, we present a four-step coding system for content analysis of autobiographical memories. Throughout the text, we make use of excerpts from actual earliest childhood memories for illustration. These memories have been collected as a part of a larger project investigating cross-national and cross-generational differences in self-consciousness and autobiographical memory in Slovakia and Denmark (Antalíková, Hansen, & de la Mata, in prep.). In both countries, participants (aged from 17 to 22 years) were asked to fill out a questionnaire in their native language, instructing them to recall their earliest childhood memory and to describe it in as much detail as possible. These written descriptions were then transcribed and analysed in the original language.

The four steps of the coding procedure are the following:

**Step 1: Division of memory into units.** First, the memory is divided into separate units of analysis, which are marked by each change of subject and/or predicate. For example: “When I was in kindergarten // and I had gotten chickenpox // and I had to stay at home. // I remember // that I was sitting on an air mattress under a cherry tree // and holding my puppy in my arms // that did not want to sit still” (participant SA9).

**Step 2: Identifying the subject (Who?).** Inspired by Wang’s other-self ratio variable (e.g., Wang, 2001), each unit is afterwards coded as either self, other, we, or NONE, and that based on the unit’s subject. Units with subjects like “someone”, “everyone”, etc. are coded as other. Units with subjects like “me and the others” are coded as we. The NONE category is employed when the subject of the unit does not refer to a person; more precisely, not to any kind of psychological or physical experience of a person. Units such as “My earliest childhood memory is of my first day in kindergarten” (participant 132) and “It was hurting me a lot” (participant SA57) are therefore still coded as self, while “It was raining” (participant 107) or “The celebration took place at our home” (participant SC1) are coded as NONE. NONE units are not analysed any further.

**Step 3: Identifying the endeavor of the subject (What?).** In this step, all self-, other- and we-units are coded into one of the categories displayed in Table 1, and that based on what the subjects of these units are doing or experiencing (de la Mata et al., 2011; de la Mata & Santamaría, 2010). Essentially, we differentiate between event units, which describe the actual event of the memory, and reflection units, which represent participants’ current vantage point. Furthermore, within both of these categories, we identify mental state units, which refer to cognitive, emotional or intentional states, either at the time of the memory event or afterwards. Event units also include state units (e.g. to be, to become, to have) and action units (e.g. to do, to go). Even though the different categories of event units apply to both self-, other- and we-units, reflection units are only relevant in the case of self-units. Here, we are able to locate the self in the memory along two dimensions. The first dimension compares the amount of action units (the landscape of action) to the amount of mental state units and reflection units (the landscape of consciousness), so the self in the memory will either appear as mostly acting or mostly thinking, feeling and intending. The second dimension weighs the total amount of event units against the total amount of reflection units. This way, the dimension illustrates the self’s transition from the memory’s character (the past) to the memory’s narrator (the present).

**Step 4: Identifying control over this endeavor and involvement of others (How?).** Finally, units are scanned for possible indicators of agency and relatedness (Kagitcibasi, 2005, 2007). In the case of agency, only explicit expressions of control (high agency – autonomy) or lack of control (low agency – heteronomy) over oneself, others or situation are counted. References to goals and intentions, most often featured in intentional and meta-intentional units, are also accepted as indicators of autonomy. For a unit to receive a score in relatedness, it simply needs to mention other people than the subject.

Table 2 and 3 show examples of coded earliest childhood memories. Each memory unit is first stated in Slovak and Danish, respectively, and then translated into English. We would like to highlight a few points in these examples. For instance, already at first glance it is possible to notice that the Slovak memory has more self-units than the Danish one, and in contrast, no we-units. The Danish memory, on the other hand, does not include any reflection units. Both memories feature a few units with indicators of autonomy and relatedness. Statistical analysis of not only the frequencies of the units’ characteristics, but also of the associations between these characteristics, would be the next step. Here, we could examine which subjects tend to carry out which endeavours, and furthermore, in which way. Is it primarily the self that is acting in an autonomous way, or is it the others? If the memory is emotionally charged, which of the subjects are responsible for that? Hence, this analysis would be instrumental for not only locating the self, but also the others and the self’s relationship to others, in the memory.
Categorizing the enthusiasm of the subject (What?). In this step, all self-, other- and we-units are coded into one of the categories displayed in Table 1, and that based on what the subjects of these units are doing or experiencing (de la Mata et al., 2011; de la Mata & Santamaria, 2010). Essentially, we differentiate between event units, which describe the actual event of the memory, and reflection units, which represent participants’ current vantage point. Furthermore, within both of these categories, we identify mental state units, which refer to cognitive, emotional or intentional states, either at the time of the memory event or afterwards. Event units also include state units (e.g. to be, to become, to have) and action units (e.g. to do, to go). Even though the different categories of event units apply to both self-, other- and we-units, reflection units are only relevant in the case of self-units. Here, we are able to locate the self in the memory along two dimensions. The first dimension compares the amount of action units (the landscape of action) to the amount of mental state units and reflection units (the landscape of consciousness), so the self in the memory will either appear as mostly acting or mostly thinking, feeling and intending. The second dimension weighs the total amount of event units against the total amount of reflection units. This way, the dimension illustrates the self’s transition from the memory’s character (the past) to the memory’s narrating persona (the present).

Table 1
Categorizing the enthusiasm of the subject (What?), including examples

<table>
<thead>
<tr>
<th>Event units</th>
<th>Mental state units</th>
<th>State units</th>
<th>Action units</th>
</tr>
</thead>
<tbody>
<tr>
<td>“My mum had exactly the same opinion as me”</td>
<td>“She was really worried about me”</td>
<td>“I was trying to make her cry”</td>
<td>“My grandmother was not in the best shape”</td>
</tr>
<tr>
<td>“I think back on this even to the best days of my childhood”</td>
<td>“It was one of the best days of my childhood”</td>
<td>“I would not have done such a thing today”</td>
<td>“We played the whole day”</td>
</tr>
</tbody>
</table>

Step 4: Identifying control over the enthusiasm and involvement of others (How?). Finally, units are scanned for possible indicators of agency and relatedness (Kagitcibasi, 2005, 2007). In the case of agency, only explicit expressions of control (high agency – autonomy) or lack of control (low agency – heteronomy) over oneself, others or situation are counted. References to goals and intentions, most often featured in intentional and meta-intentional units, are also accepted as indicators of autonomy. For a unit to receive a score in relatedness, it simply needs to mention other people than the subject.

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Table 3.
Content analysis of earliest childhood memory of a 20-year-old female from Denmark (participant 126)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Who?</th>
<th>What?</th>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>we</td>
<td>Vi havde lige fået nye naboer,</td>
<td>action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We had just gotten new neighbours,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>og der var sendt en buket blomster til dem</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>NONE</td>
<td>and there was a bouquet sent to them</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NONE</td>
<td>but it ended up at ours,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>så min mor og jeg gik hånd i hånd over til den nye nabo for at aflevere buketten.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>we</td>
<td>so my mum and I went hand in hand</td>
<td>intentional autonomy relatedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>over to the new neighbor to deliver the bouquet.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>we</td>
<td>Vi kunne høre</td>
<td>action</td>
</tr>
<tr>
<td>6</td>
<td>others</td>
<td>at de var omme i haven</td>
<td>state</td>
</tr>
<tr>
<td>7</td>
<td>we</td>
<td>så vi gik der om,</td>
<td>action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>so we went over there</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>we</td>
<td>da vi drejede om hjørnet,</td>
<td>action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>as we turned around the corner</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>others</td>
<td>kom manden i huset gående med hans datter på ca 1½</td>
<td>relatedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the man came walking into the house,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>with his daughter of 1½</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>self</td>
<td>og jeg tænkte</td>
<td>cognitive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and I thought</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>others</td>
<td>hun ser da sved ud</td>
<td>state</td>
</tr>
<tr>
<td></td>
<td></td>
<td>she looks rather sweet</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>self</td>
<td>hende vil jeg gerne lege med.</td>
<td>intentional autonomy relatedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I would like to play with her.</td>
<td></td>
</tr>
</tbody>
</table>

Discussion and Conclusion

In this paper, we presented a new approach to content analysis of autobiographical memories. The starting point for our approach lied in previous research, which has documented systematic cross-cultural differences in content characteristics of autobiographical memories. This research has generated a number of coding categories, some of which we have readily utilized in our own work (Antalíková et al., 2011; de la Mata et al., 2014). Nevertheless, while past investigations have primarily relied on cross-national comparisons between Western and East Asian populations (Ho et al., 2013; Jobson & O’Kearney, 2008; Wang & Conway, 2004; Wang, 2001, 2006), we have collected and analysed memories of people from more divergent cultural backgrounds. This has led
Table 3.
Content analysis of earliest childhood memory of a 20-year-old female from Denmark (participant 126)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Who?</th>
<th>What?</th>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>we</td>
<td>action</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>NONE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>NONE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>we</td>
<td>intentional</td>
<td>autonomy</td>
</tr>
<tr>
<td>5</td>
<td>we</td>
<td>action</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>others</td>
<td>state</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>we</td>
<td>action</td>
<td></td>
</tr>
<tr>
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<td>action</td>
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<td>action</td>
<td>relatedness</td>
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<td>self</td>
<td>cognitive</td>
<td></td>
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<td>11</td>
<td>others</td>
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<td>intentional</td>
<td>autonomy</td>
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us to look beyond the traditionally used independence vs. interdependence dimension. Instead, we chose to theoretically ground our approach in Kagitcibasi’s (2005) model of autonomy and relatedness and Bruner’s (1987) distinction between landscape of action and landscape of consciousness. The former allowed for a more rigorous definition of agency, as well as its possible combination with relatedness. The latter provided basis for comparison of the incidence of states and actions in the memory to the incidence of mental states and reflections. This way, we aimed to capture how self is present, and presented, in autobiographical memories in a more nuanced way than done previously.

Furthermore, we recognized that autobiographical memory is not only a rich source of information about the self, but also about the self’s relationship to others. Our coding system took this into consideration, as it enabled differentiation between how the characteristics described above (e.g. agency) applied to self in contrast to how they applied to others. This is an important point, as it has been argued that autobiographical memory tends to be defined and studied from a traditionally Western perspective, i.e. as a highly self-reflecting, self-revealing and self-focused concept (Röttger-Rössler, 1993; Wang & Brockmeier, 2002). When applied to non-Western populations, content analysis should take into account other than Western conceptualizations of autobiographical memory, and let self, and others, play its (their) role within.

It is also of interest to note that content characteristics of autobiographical memories have been found to vary as a function of other cultural factors than nationality. For instance, de la Mata and colleagues (de la Mata et al., 2011) conducted interviews about earliest childhood memories with 60 Mexican participants, who either were almost illiterate (currently learning to read and write), or had completed primary or university education. Comparing the earliest childhood memory narratives across the three groups, a number of important patterns emerged. More specifically, as the participants’ educational level increased, their memory narratives became more specific, self-focused, agentic and included more cognitive, emotional and meta-cognitive words. The authors’ interpretation was that formal schooling in general promotes development of individual’s independence and autonomy, which can then be observed in the individual’s autobiographical memories. A similar argument applies to the results of a study by Antalíková et al. (2011). Here, Norwegian and Slovak adolescents were asked to report autobiographical memories from three different settings; family, school and friends. Interestingly, while both samples’ school memories generally qualified as self-focused (they included more references to self than to others), family and friends memories were other-focused (they included more references to others than to self). This way, the adolescents’ autobiographical memories reflected the emphasized self- or other-orientation that each of the recall settings could be thought to promote, e.g. school setting promoting independence and autonomy rather than interdependence and relatedness. Taken together, there are reasons to suspect that a range of cultural and contextual factors has an influence on autobiographical memory content, and should thus be considered in future research.

One of fundamental challenges in cross-cultural research on autobiographical memory lies in capturing the richness of information about self, and others, readily available to researchers in the memories’ content, while maintaining a rigorous operationalization of culturally relevant, and cross-culturally comparable, characteristics of this information. In the end, the coding system presented in the current paper is an attempt to deal with this challenge and we hope it to be instrumental to other researchers working in the area.

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References

Fivush, R., & Wang, Q. (2005). Emotion Talk in Mother-Child Conversations of the Shared Past: The Effects of...


