Editorial: An Introduction to the Special Issue on Autobiographical Memory

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Abstract

This article serves as an introduction to this volume's *Nordic Psychology* Special Issue on autobiographical memory. We were given the opportunity to present examples from the 'growth layer' from the Center on Autobiographical Memory Research (CON AMORE), located at Aarhus University. This is displayed by the fact that all six articles in the present volume have PhD students as first authors. Although quite different issues are covered, the articles as a whole do not provide an exhaustive review on autobiographical memory research. Rather, the contributions are constrained by the topics that each PhD student is working on. Especially two themes, that recently both have received a lot of interest in the field, are prominent across the contributions: Cultural Life Scripts, and Mental Time Travel. Before introducing each article, a brief general outline on autobiographical memory and how the field has developed so far is offered.

Editorial: An Introduction to the Special Issue on Autobiographical Memory

Autobiographical memory is typically defined as the ability to consciously remember personal events (Berntsen & Rubin, 2012a). Memories for personal events from our lives constitute basic, yet crucial, building blocks when we consider, communicate, and reflect upon who we are and how each of us has become the person we are (Bauer, 2007). Likewise, autobiographical memories help us to learn from our past experiences and to plan for our personal future (Berntsen & Rubin, 2012b). As such one may think that autobiographical memories for long would have been granted a firm position within the field of psychology. However, as many readers will know, this is not the case at all.

As late as in 1986 the first edited book on autobiographical memories was published (Rubin, 1986). Around that time only very few papers on the topic had been published in scientific journals, but since then the interest in the topic has grown steadily (see Fig. 1), and today the topic autobiographical memory is represented in most basic books on memory and cognition.

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Fig. 1

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This radical development warrants the questions: If autobiographical memory is clearly relevant for psychology, then why did it take so long to become an accepted field of research? There are probably at least two reasons: First, personal events are by definition ‘personal’, which means that the to-be-remembered material differs between people. This implies that in order to present valid stimulus material for studying autobiographical memories, researchers have been forced to employ other methodologies (e.g., diary studies,

questionnaires) than the standard paradigm for memory studies, that is, laboratory experiments. Second and closely related to the first reason, obtaining valid and reliable data from people's personal event memories counters the problem of accuracy (Berntsen & Rubin, 2012b). For obvious reasons the to-be-remembered events from people's own lives are more difficult to assess, validate, and control compared to the to-be-remembered material one can present and manipulate in the laboratory. Thus, some memory researchers of a more traditional bend have been more or less skeptical with regards to the question as to whether people's autobiographical memories could be studied in a sufficiently scientific manner (e.g., Banaji & Crowder, 1989).

Today, autobiographical memory research has generally become accepted as a worthwhile topic for scientific investigations. The main reason behind this development can probably be boiled down to the fact that research on autobiographical memory has led to novel and important findings on human memory, and that these findings have turned out not only to be reliable and replicable, but also to have significant applied value for society. For instance, the distribution of memories across a middle-aged adult's life cannot be explained by Ebbinghaus' (1885) forgetting curve. Instead, as several studies have shown, there is an accumulation of memories from the period when the respondents were in their 15-30 years age range, the so-called *reminiscence bump* (e.g., Rubin & Schulkind, 1997; Rubin, Wetzler, & Nebes, 1986). Another example: Until the 1980's most people interested in memory development were of the opinion that children's event memory was qualitatively different than event memory in adults. Based on the Piagetian assumptions that representational abilities was a late developmental achievement (Piaget, 1954), combined with claim that preschool children had difficulties ordering sequences in time (Piaget, 1969), the interest in developing adequate methods for studying event memory in children was sparse (Bauer,

2007). However, when researchers finally and actually began studying event memory in children (e.g., Fivush, Gray, & Fromhoff, 1987; Nelson & Gruendel, 1981, 1986), it turned out that children's ability to remember events predominantly differed in quantity rather than in quality compared to adults. Finally, research on autobiographical memory has provided new and important information for clinical and applied psychology. For instance, research on eye-witness psychology has shown time and again that event memory contains reconstructive elements which have had important impact on, and implications for, the forensic system (Ceci & Bruck, 1993; Loftus & Pickrell, 1995; McNally, 2003).

When prominent researchers from entirely different areas of psychology specifically request further autobiographical memory research in order to enlighten their specific area, it serves as a convincing illustration of the recent accept of autobiographical memory research as a worthwhile research topic. In their handbook chapter on 'internal working models in attachment relationships', Bretherton and Munholland's (2008, p. 122) began their concluding paragraph with the following request:

To make further progress in elaborating and clarifying the working-model construct and to foster new discoveries in representational attachment research, we strongly urge close collaboration with cutting edge researchers who study memory, narratives, and storytelling in adults and children.

To summarize: Over the last couple of decades the field of autobiographical memory has grown dramatically from only a few published papers in the 1980's to several thousands today. It has shown its theoretical and practical relevance in relation to a number of fields –

including, but not limited to, clinical psychology, social and personality psychology, neuropsychology, aging, and even comparative psychology.

On the 1st of January 2010 the Center on Autobiographical Memory Research (CON AMORE) was launched. The center was financed by the Danish National Research Foundation for five years and is directed by one of us (Dorthe Berntsen). We are very pleased to be allowed the opportunity to present some of the work from the ‘growth layer’ of our center, that is, work from the PhD students. Thus, the six articles that follow do not represent a comprehensive and exhaustive overview of the field of autobiographical memory as such. Rather, they represent six specific examples of research on autobiographical memory conducted at the center. Most, but not all, of the articles serve as reviews of sub-fields related to autobiographical memory. Although the articles obviously cover different areas, five of the six articles are related to two larger topics. The first of these topics is ‘Cultural Life Scripts’, that is, our culturally shared expectations with regards to the order and timing of important transitional events – e.g., when to get married, and when to get one’s first job (Berntsen & Rubin, 2004). The second topic is ‘Mental Time Travel’ – that is the ability to project oneself forward and backward in subjective time to relive events in the personal past and ‘prelive’ possible events in the personal future (Tulving, 1985, 2002).

The first two articles concern the cultural life script. **Sharda Umanath and Dorthe Berntsen** explore the relationship between cultural life scripts and people’s actual personal life stories. Their focus is on commonly mentioned events in personal life stories (e.g., moving) that for some reason do not find their way into the normative life script. Somewhat surprisingly, this topic has never been investigated systematically before. As such, the article by Umanath and Berntsen takes a first steps in bridging a gap in the literature. In her article, **Alexandra Zaragoza Scherman** reviews the existing studies that have tested the cultural

life script theory in four different countries. Cross-cultural comparisons are obviously mandatory when exploring cultural life scripts. However, Zaragoza Scherman also discusses to what extent the cultural life script can account for the reminiscence bump.

The next three articles are all related to the topic of mental time travel. In her article, **Amanda Miles** reviews two apparently converging lines of research: (a) mental time travel, and (b) multi-modal sensory cuing. The mental time travel literature suggests that different kinds of cuing should have similar effects on the recall of past memories and future projections respectively. However, the literature on multi-modal cuing indicates that this might not be the case at all. The review of these two lines of research is followed by a critical discussion. The second article on mental time travel by **Hildur Finnbogadóttir and Dorthe K. Thomsen** has a clinical bend. Finnbogadóttir and Thomsen review the existing studies conducted on the relationship between maladaptive repetitive thinking and a range of mental time travel characteristics. Whereas some results are systematic across studies (e.g., that maladaptive repetitive thinking is associated with reduced specificity of past mental time travel) other results are mixed. Finnbogadóttir and Thomsen discuss the divergences critically and argue that they may be explained by divergences in conceptualizations of the term 'maladaptive repetitive thinking' as well as sample bias effects. In the third and final article related to mental time travel, **Katrine W. Rasmussen** reviews studies based on subjects with lesions in hippocampus and prefrontal cortex. Until recently hippocampus has been considered to be *the* crucial component in order to imagine the future. However, based on recent evidence, Rasmussen argues that an intact prefrontal cortex may be just as important as a fully functional hippocampus when attempting to project oneself into future scenarios.

The final article by **Jonna Jelsbak Dahl, Trine Sonne, Osman S. Kingo, and Peter Krøjgaard** concerns the development of autobiographical memory. Dahl and her co-authors present and discuss two basic, but hitherto somewhat neglected, questions they consider to be crucial in order to understand the development of episodic memory: (1) “What is an episode?”, and (2) “How do preverbal children recall a specific episode of a recurring event?” In order to shed light on the first question Dahl and colleagues argue in favor of employing the recently developed event segmentation theory. The second question is pursued by an attempt to re-vitalize the studies on scripted knowledge in preverbal infants by means of deferred imitation paradigms.

It is our hope that these articles will contribute not only to the stimulating progress we have seen in recent years within the field autobiographical memory research but also to the field of psychology in a broader perspective.

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Figure 1.

Fig. 1: Accumulative number of peer reviewed articles based on the PsycINFO database with 'Autobiographical Memory' as keyword published until and within the given year in the period from 1980 to 2012.