



CON AMORE
Center on Autobiographical
Memory Research

CON AMORE 2020 Celebration Symposium

Ten years as a DNRF
Center of Excellence

November 18th 2020



CON AMORE – CENTER ON
AUTOBIOGRAPHICAL MEMORY RESEARCH
DEPARTMENT OF PSYCHOLOGY
AND BEHAVIOURAL SCIENCES
AARHUS UNIVERSITY



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Preface

Welcome

Center on Autobiographical Memory Research (CON AMORE) celebrates 10 years of research on autobiographical memory and 10 years as a Center of Excellence (CoE) generously funded by the Danish National Research Foundation (DNRF).

At the time of its inauguration in 2010, CON AMORE was the only CoE on autobiographical memory in the world and the first one in psychology in Denmark, since the DNRF launched this instrument in the early 1990s. From its outset, CON AMORE made a targeted attempt to meet a growing international need for developing and integrating theoretical and empirical research on autobiographical memory - defined as a neurocognitive (mind/brain) system for consciously recollecting the personal past and imagining possible events in the personal future. Since then we have hosted eight international conferences and countless seminars and visits of international scholars and students. We have studied autobiographical memory from a biological to a cultural level, from behavior to brain, across the life span from infancy to old age, and in healthy cognition as well as in clinical disorders. CON AMORE has produced a number of critical findings, novel theoretical insights and moved autobiographical memory research in important new directions.

Today we will have a taste of some these many research projects through a colorful bouquet of talks and poster presentations. We will hear about research conducted by current and former members of CON AMORE, illustrating CON AMORE's research from a multitude of perspectives, and suggesting future directions.

Thank you very much for joining us on this special day.

Dorthe Berntsen,
Center director of CON AMORE

Organizing Committee: Dorthe Berntsen, Annette Bohn, Heidi Eskegaard Jensen,
Kirsten Pedersen, Sinué Salgado & Lynn Ann Watson

Programme **overview**

9.00 - 9.05

Dorthe Berntsen: Welcome

9.05 - 9.50

Dorthe Berntsen:
Ten years as a DNRF Center
of Excellence:
Autobiographical memory
and some of our key
findings viewed in a wider
perspective

9.50 - 10.00

Break

10.00 - 10.15

Katrine Rasmussen:
Consequences of frontal
lobe dysfunction on
autobiographical memory

10.15 - 10.30

Adam Redman Congleton:
It took me by surprise:
The effects of emotion and
retrieval cues on memory for
event details

10.30 - 10.35

Break

10.35 - 11.05

Dorthe Kirkegaard Thomsen:
Using life story chapters to
illuminate identity problems
in individuals with severe
mental illness

11.05 - 11.10

Break

11.10 - 11.40

Annette Bohn:
Life story development in
typically developing and
vulnerable children and
adolescents

11.40 - 13.30

Lunch
Poster session

13.30 - 14.00

Peter Krøjgaard:
Event memory in infants and
young children

14.00 - 14.15

Trine Sonne:
On the topic of spontaneous
recall in young children:
What triggers the recall of
memories?

14.15 - 14.30

Break

14.30 - 15.15

Rick H. Hoyle,
Duke University:
Intellectual humility:
Acknowledging the limits
of one's knowledge and
understanding

15.15 - 15.20

Break

15.20 - 15.35

Tine Bennedsen Gehrt:
Anxiety event centrality:
Negative and health-related
autobiographical memories

15.35 - 15.45

Break

15.45 - 16.30

David C. Rubin,
Duke University:
CON AMORE and progress
in autobiographical memory
research

16:30 - 16.40

Break

16.40 - 16.55

Sinué Salgado:
The physiology of
autobiographical memories:
Physiological arousal during
everyday life event and their
memories

16.55 - 17.00

Break

17.00 - 17.15

Mélissa Allé:
Involuntary autobiographical
memory in the psychosis
continuum

17.15 - 17.30

Dorthe Berntsen:
Concluding remarks

Presentations

In chronological order

Dorthe Berntsen CON AMORE

Ten years as a DNRF Center of Excellence: Autobiographical memory and some of our key findings viewed in a wider perspective

Autobiographical memory as seen in humans involves an extended self-awareness, which allows individuals to make themselves object of thoughts, and enables them to consciously control the retrieval of autobiographical memories and the construction of future events. It allows adult humans to contextualize their experiences in a wider temporal and thematic perspective, such as conceiving of their lives in terms of a life story, structured by cultural schemata. More rudimentary forms of autobiographical memory are seen in other animals and young children, notably in the form of involuntary, associative retrieval of past events and expectations of future events. Such associative forms also tend to dominate in clinical disorders, conventionally labelled intrusions. Because involuntary forms of autobiographical remembering are activated by situational cues rather than top down cognitive search, facilitating involuntary remembering by providing relevant cues can be used therapeutically in individuals with executive deficits. My non-exhaustive overview of key contributions from CON AMORE will be viewed in this perspective.

Katrine Rasmussen
CON AMORE

Consequences of frontal lobe dysfunction on autobiographical memory

Autobiographical memory involve the ability to remember past episodes and imagine events that may occur in one's personal future. Neuroimaging studies have shown that autobiographical memory relies on an extensive network of brain regions making is highly vulnerable to neurological damage. Here, focus will be on the role of frontal/executive processes in autobiographical memory and future thinking. I will present work examining the influence of frontal brain damage on autobiographical memory and future thinking, and discuss how these results speak to our understanding of similarities and differences between remembering and future imagining. Then I will present some new work by our research group on involuntary autobiographical memory in dementia using a novel method specifically designed to circumvent demands on frontal/executive processes. I will briefly touch on the implications of these findings for rehabilitation strategies and well-being, with an emphasis on the functional role of autobiographical memory in various domains.



Adam Redman Congleton
CON AMORE

It took me by surprise: The effects of emotion and retrieval cues on memory for event details

In this talk, I will present the results of several studies examining how people's memory for the details of an event may be influenced by the emotion they experienced at the time, as well as the retrieval cues used to elicit their memory. To control for the encoding and retrieval of events, my collaborators and I developed the Simulated Event Paradigm, in which participants are asked to watch a first-person perspective film of an event while imagining themselves as the film's protagonist. The studies examined the influence of emotional variables on people's voluntary retrieval of the events, as well as how the type of retrieval cue provided to them affected their involuntarily experienced recollections of those events. Importantly, the studies revealed how experiencing an unexpected moment in the midst of an event may lead to retroactive enhancement in participants' memory for event details that came prior to that moment.

**Dorthe Kirkegaard Thomsen, Tine Holm, Rikke Jensen, Majse Lind,
and Anne Mai Pedersen**
CON AMORE

**Using life story chapters to illuminate identity problems in individuals
with severe mental illness**

Individuals craft narrative identity by constructing life stories that establish continuity between their remembered past, lived present, and anticipated future. Suffering from severe mental illness is associated with identity problems and a crucial part of personal recovery is constructing a positive identity. I will present our studies on how individuals with schizophrenia, bipolar disorder, borderline personality disorder or major depressive disorder story their past and future. Generally, our studies show that their past life story chapters are characterized by themes of low agency and communion compared with non-clinical control groups. However, individuals with mental illness story their future chapters as positively as control groups. While these studies confirm identity problems in severe mental illness, they lack a true first-person perspective on how mental illness affects identity. To address this limitation, I will share recent qualitative analyses illuminating how individuals with psychopathology describe the massive costs of mental illness.


Annette Bohn
CON AMORE

Life story development in typically developing and vulnerable children and adolescents

Developing a coherent life story based on remembering one's personal past and imagining one's future helps adolescents create a sense of self-continuity and identity. It is generally assumed that developing a coherent life story is distinct from developing general narrative coherence. Research on life story development conducted at CON AMORE has focused on this distinction. My presentation will provide an overview over this research. First, several studies supporting the importance of cultural life scripts for the ability to remember one's past life story and imagine one's future coherently will be presented. Second, results from recent studies comparing life stories of typically developing adolescents with those of 1) adolescents diagnosed with anxiety, and 2) children of refugee parents with PTSD will be discussed with a focus on coherence, content, and the role of emotional tone. Finally, I will discuss some of the future directions suggested by this research.

Peter Krøjgaard
CON AMORE

Event memory in infants and young children

Two lines of research will be presented. First, in one series of studies, we have examined spontaneous recall in young children. Although most parents have experienced their preschool child having spontaneous episodic memories, such memories have rarely been studied and until recently, only outside the lab. By means of a new experimental paradigm, we have shown that spontaneous recall is indeed present in young children, and may be an early developing, basic mode of remembering.

Second, by means of eye tracking, we have in another line of research, examined infants' recall of cartoons involving simple narratives. Taken together, these studies provide evidence that looking-time measures may be an overlooked, but versatile, tool when examining the development of event memory in infants and young children.



Trine Sonne
CON AMORE

On the topic of spontaneous recall in young children: What triggers the recall of memories?

A novel experimental paradigm from our lab has shown that it is possible to activate spontaneous memories in young children by having them re-visit the original setting in which they were introduced to a memorable event. Results from our lab as well as diary studies thus suggest that children in a young age are capable of recalling events spontaneously, that is, without being prompted to do so. What exactly triggers this way of recalling events however, remain undetermined. In response, we have investigated the importance of different cues by use of this experimental paradigm. In this talk, I will touch upon different studies looking into the importance of several potentially meaningful cues – the location for testing, the experimenter, fixtures, and the type of questions asked. I will discuss these findings and relate them to our understanding of memory development.

Rick H. Hoyle
Duke University (USA)

Intellectual humility: Acknowledging the limits of one's knowledge and understanding

Intellectual humility (IH) is the belief that one could be wrong about what one purports to know and understand, accompanied by a willingness to consider, even seek out, new information or alternative perspectives. I present findings from a program of research initially motivated by the goal of building on rich and long-standing philosophical accounts of IH to develop measures and methods for studying IH empirically. In the first part of the talk, I focus on the conceptualization and measurement of IH. I then present findings from a longitudinal study of college students beginning just after their arrival at university and concluding just before their completion of undergraduate studies. I conclude with a presentation of findings from work still in progress on the influence of IH on knowledge about the COVID-19 pandemic and compliance with directives aimed at curbing transmission of the virus.

Tine Bennedsen Gehrt
CON AMORE

Anxiety and event centrality: Negative and health-related autobiographical memories

Memory helps keep life pleasant – but not for all. Excessive levels of anxiety affect the emotional state of the individual, thereby impacting how events are remembered and disrupting the positivity bias usually found in autobiographical memory. Likewise, highly accessible personal memories provide meaning and structure to an individual's life, but when negative memories take on a similar role, it can be associated with a range of negative outcomes. In this talk, autobiographical memories and future thoughts in patients with severe health anxiety and patients with obsessive-compulsive disorder will be examined, as well as the psychological and clinical correlates of having a negative memory be central to an individual's identity and life story.

David C. Rubin
Duke University (USA)

CON AMORE and progress in autobiographical memory research

I review the history of autobiographical memory in cognitive psychology, tracking methodological and theoretical advances and the development of autobiographical memory as a concept worthy of study. I do this in general and for Aarhus University (AU). The rapid growth has been made possible by confluence of forces including the following. a) The willingness (or flight) of psychologists from the laboratory to the less controlled environments in which autobiographical memory develops, exists, and declines, which was needed in Anglo-American psychology more than at AU. b) Theoretical speculation that became empirically tested theories that went well beyond anything in the laboratory, in which AU played a central role. c) The development of computers and computer programs to collect and analyze data, especially remotely, which came more grudgingly to AU but at which it now excels. d) The integration of clinical, neural, neuropsychological, more humanistic (especially narrative based approaches) with hard core experimental and statistical methods, which was a general trend in psychology, especially as the methods of neuroscience (especially neuroimaging) advance to make easier contact with the theoretical questions and basis of autobiographical memory.

I will also comment more personally on what I see as theoretical developments from CON AMORE and in my work and what this bodes for the future. A lot has happened in the decade of DNRF funding to CON AMORE and the decades before it. CON AMORE, and the Psychology Institute before it, became the place to be. Visitors who had extended stays and those who came for meetings include the key researchers in autobiographical memory. I will briefly review these accomplishments because we all should be proud of them and need to remember the way past obstacles were overcome to deal with obstacles that remain.



Sinué Salgado
CON AMORE

The physiology of autobiographical memories: Physiological arousal during everyday life event and their memories

Physiological arousal is the catalyst of our memory. It is also the foundation from which emotional states arise. Lab studies have revealed that experiences eliciting higher physiological arousal are remembered better and more detailed. Furthermore, research has demonstrated that the reminiscence of important and emotional autobiographical memories stimulates stronger physiological reactions while recalling them. In this talk, I will present the results of a study examining how patterns of arousal, collected as events experience in real-life complex scenarios unfold, relate to how people evaluate their memories for these events one week later. Results demonstrated a direct link between physiological arousal experienced during the event and the reported physical intensity elicited by its memory. The link with the emotional intensity of the memory was indirect and mediated by emotional awareness. I will discuss implications for Alzheimer Disease patients in which decrements in higher-order cognitive functions compromise subjective evaluations of mental states.

Mélissa Allé

CON AMORE/Université de Lille (France)

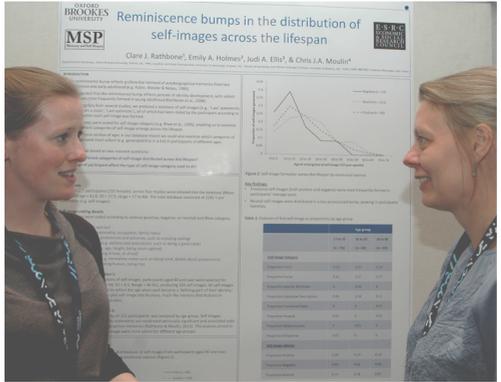
Involuntary autobiographical memory in the psychosis continuum

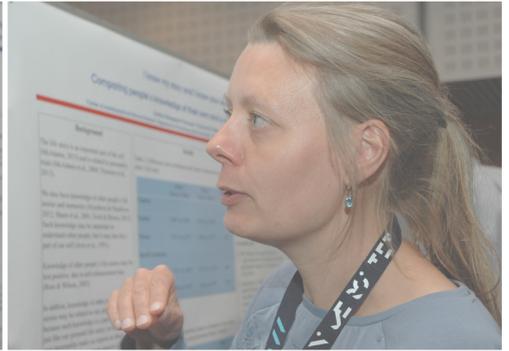
Psychosis is a serious mental disorder, associated, among other things, with self-disorders, intrusive thoughts and hallucination. Across several studies, we explored for the first time involuntary autobiographical memory in both individuals with attenuated psychotic symptoms and patients with schizophrenia. Our findings showed a consistent relationship between the frequency of involuntary autobiographical memories in daily life and hallucination-proneness, in the general population. The thorough analysis of involuntary autobiographical memory characteristics and conditions of elicitation provided new understanding on patients' involuntary remembering in daily life and on the mechanisms associated with intrusive thought and hallucination.



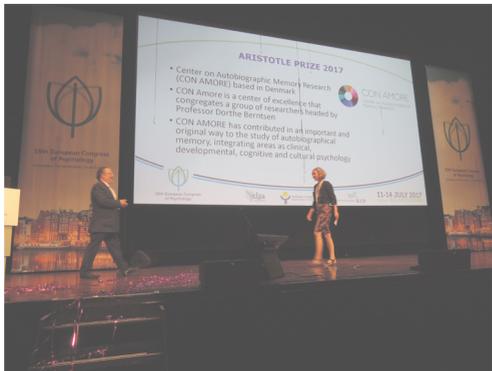
















Photos: Lise Balsby, Anders Gade, CON AMORE employees and alumni 2010 – 2019.

Earliest memories in adolescents with cleft palate compared to a typically developing control group

Ocke-Schwen Bohn^a & Annette Bohn^b

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Childhood amnesia, i.e. the lack of autobiographical memory (AM) before age 3, is often accounted for by immature linguistic encoding skills. This study tests the hypothesis that language acquisition and development of AM are related, by comparing earliest memories in adolescents with delayed language acquisition due to a cleft palate ($n=19$, $M_{age} = 15$ years, 8 females) to typically developing adolescents. Participants were asked for a recent and their earliest memory, age at the memories, and to rate memories on reliving, see/hear, valence, rehearsal, importance, and centrality to identity. Language competence was tested with phonological and semantic vocabulary tests. Contrary to expectations, no group differences were found. However, partially supporting our hypothesis, across groups, age at first memory was related to both phonological and semantic language competency. Interestingly, in first memories, reliving, seeing/hearing the memory and its centrality to identity were correlated with better phonological, but not semantic language competencies.

Sleep and spontaneous cognition: A systematic review

Ana Lucía Cárdenas & Dorthe Berntsen

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Sleep quality and sleep deprivation impact cognitive functioning. Moreover, chronotype influences cognitive performance throughout the day. Although spontaneous cognition is common in daily life, little is known about whether and how sleep influences spontaneous thoughts. We present a systematic review of the relationship between sleep-related measures and spontaneous cognition. Despite the wide variety of methodological approaches as well as different conceptualizations of spontaneous cognition and sleep, results from 16 studies consistently indicate that chronotype, sleep quality, sleep disturbances, sleepiness and sleep deprivation influence both the general tendency to experience disruptive mind wandering and daydreaming in daily life; and the frequency of mind wandering while performing a task. Additional work is needed to understand the relationship with positive daydreaming and involuntary memories, and the time-of-day effect. We discuss the relevance of disentangling disruptive and positive spontaneous cognition. Finally, the implications for the role of executive control in spontaneous cognition are discussed.

Past and future life story chapters among individuals with an increased suicide risk: An empirical study

Marie Tranberg Hansen^a, Dorthe Kirkegaard Thomsen^a, Rikke Amalie Agergaard Jensen^a & Rikke Bøye^b

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b Aarhus University Hospital Psychiatry

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Life stories are important in creating self-continuity, meaning, and purpose in life. Even though suicide risk has been found to be related to a lack of self-continuity and feelings of hopelessness, few studies have examined life stories among individuals with an increased suicide risk. We will ask 20 participants with an increased suicide risk to describe five past life story chapters and five future life story chapters. The chapters will be self-rated on emotional valence, self-stability, self-change connections, and subjective likelihood (only for future chapters). The responses will be compared with data from another study that used a similar method to investigate life story chapters among individuals with depression and schizophrenia. This is work in progress, and the results will be presented in the poster presentation.

**“It’s just a LEGO bird. The curly lady gave it to me!”
A diary study of spontaneous memories in 34- to
36-month-old children**

Tirill Fjellhaugen Hjuler, Trine Sonne, Osman Skjold Kingo, Dorte Berntsen & Peter Krøjgaard

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The purpose of the present diary study was to investigate young children’s spontaneous memories as they naturally occur in their home environment. Only a single previous diary study has focused exclusively on spontaneous memories in young children (Reese, 1999). The present study seeks to expand on previous findings. Parents registered their children’s spontaneous memories during a two-week period in two steps: 1) in a notebook and subsequently 2) in a detailed online questionnaire assessing aspects including cues present at retrieval, valence and age of the remembered event. One week after completing the diary, the experimenter asked the children open-ended questions about the last three spontaneous memories. The results showed that the most prominent cues triggering spontaneous recall were ‘objects’ and ‘something said’. The valence of the memories was typically positive, and the age of the memories revealed a clear forgetting curve. Interestingly, children struggled to answer questions about their memories.

Storying the past and the future: Agency and communion themes among individuals with schizophrenia and depression

Rikke Amalie Agergaard Jensen^a, Dorthe Kirkegaard Thomsen^a, Majse Lind^b, Nicolai Ladegaard^c & Vibeke Bliksted^c

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Research has linked disturbances in narrative identity with schizophrenia and other psychiatric disorders. One such disturbance is diminished agency and communion themes in past life stories. However, projecting oneself into the future is also central to identity and potentially impacts recovery. Hence, we examined themes of agency and communion in both past and future life stories and related themes to psychosocial functioning in 20 individuals with schizophrenia, 20 individuals with depressive disorder, and 19 nonpsychiatric controls. Participants were asked to describe up to 10 past and future chapters in their life stories and were assessed on psychosocial functioning and neurocognition. Chapters were coded for agency and communion themes. Both clinical groups displayed diminished agency and communion themes in past but not future life story chapters compared with the nonpsychiatric controls. Further, agency themes in future chapters explained variance in psychosocial functioning after controlling for neurocognition. The results suggest that constructing a narrative identity to foster agency and communion in both past and future chapters may be an important part of recovering from schizophrenia and depression.

Distinct environmental cues trigger spontaneous recall of past events in three- and four years old children even after long delays

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Spontaneous memories are memories that come to mind, almost 'out of the blue', without any deliberate attempt to recall the events. Based on a novel experimental paradigm, recent evidence shows that 35- and 46-month-old children spontaneously recall events across a 1-week retention interval. The purpose of the present study was to examine spontaneous recall across 1-, 4.5-, and 13-week retention intervals using the same age groups (35-month-olds: $n = 114$; 46-month-olds: $n = 113$). At the first visit, the children were exposed to a unique event, while at the second visit, the children's spontaneous recall of the event was recorded. Regardless of age and retention interval, the children spontaneously recalled the events. These results seem to challenge the prevailing understanding of event memory development (e.g. Tulving, 2005) and suggest that spontaneous retrieval is present early in development.

Twelve-, ten-, and six-month-olds remember complex dynamic events across two weeks

Osman Skjold Kingo, Trine Sonne & Peter Krøjgaard

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Although the Visual Paired-Comparison (VPC) task has been used extensively over the years to test infants' ability to remember simple, static material (e.g., pictures), we know surprisingly little about how infants perform when testing their memory for dynamic events (i.e., events unfolding in time) in the first year of life. While there is evidence to suggest that complex dynamic events (i.e., events involving agents, and a storyline) may be comprehended in the first year of life, 16- to 18-month-olds are hitherto the youngest infants documented to remembering such material. Using the VPC paradigm, we examined 12-, 10-, and 6-month-olds' (N = 108) ability to encode and remember cartoons involving complex dynamic events across two weeks. Results showed that all age groups were capable of remembering these cartoons. To our knowledge, this is the first experiment to document memory for such complex material in young infants using the VPC paradigm.

Are self-reported most positive and most traumatic events mentioned in the life story, and is mentioning related to event centrality?

Inge Lise Lundsgaard Konsgjøj, Annette Bohn & Dorthe Berntsen

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Very positive events are more central to life story and identity than traumatic events. Yet, centrality of traumatic events correlates with PTSD. What is unknown is whether self-nominated most positive or most traumatic events are spontaneously mentioned in life stories, and if mentioning is related to how central the events are to life stories and identity. Here, 386 adults provided life stories and measures of traumatic exposure, PTSD, depression, and centrality of traumatic and most positive events. Results showed that 41.7% of participants mentioned only the positive event in their life stories, 8.3% only the traumatic event, 16.6% both events, and 33.4% neither. In all groups, the positive event was rated as more central than the traumatic event, except for the group only including their trauma, who displayed no positivity bias. Further, groups differed on PTSD symptoms. Results are discussed in relation to theories of life stories and PTSD.

Sensory modality and the distribution of autobiographical memories: Written word cues yield an earlier reminiscence bump than spoken word cues

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Previous research has found that the location of the reminiscence bump in autobiographical memory (i.e., the peak in the number of memories recalled) varies based on the retrieval cue employed. For instance, the bump for memories retrieved in association to cue words is typically later than the bump for odour-cued memories. In the present study, rather than compare word-cued memories to other sensory cues, we manipulated the sensory medium through which the cue word was presented; participants retrieved autobiographical memories in association to either (1) cue words presented in writing, or (2) cue words presented by being spoken aloud. We found an earlier bump for memories retrieved in association to written cue words, with memories for written cue words peaking from 6 to 10 years of age, and memories for spoken cue words peaking from 16 to 20. We address possible mechanisms underlying this earlier bump for written cue words.

Narrative identity predicts borderline personality disorder features in inpatient adolescents

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A growing body of work has shown that several characteristics of narrative identity are disturbed in adults suffering from borderline personality disorder (BPD). Very little research, however, has explored the stories told by adolescents with BPD features. In this study, we examine narrative identity (focusing on themes of agency and communion) coded from self-defining memories derived from the child attachment interview in 174 inpatient adolescents ($M = 15.12$, $SD = 1.52$) at the time of admission and at discharge from the hospital. The adolescents' social cognition and emotional dysregulation were further assessed. Results show that adolescents who disclosed stories containing lower levels of agency and communion demonstrated more BPD symptoms at admission. An interaction revealed that the combination of emotion regulation and agency themes predicted positive change in BPD features from admission to discharge. These preliminary results underscore the importance of narrative identity as an indicator of incipient personality pathology.

The frequency, characteristics, and consistency of emotional hotspots from a trauma analogue: an experimental investigation using virtual reality

Niels Peter Nielsen, Sinué Salgado & Dorthe Berntsen

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In a series of studies, we investigated how moments of high emotional intensity (hotspots) develop over time with regard to content and phenomenological characteristics using an experimental design. In addition, we investigated hotspot frequency and their relation to intrusive memories. In study 1, participants came to our VR-lab, experienced a trauma analogue and reported hotspots. Afterwards they kept a diary of involuntary and voluntary memories. Results showed that the majority of involuntary memories matched the content of hotspots – as was the case with voluntary memories. In study 2 and 3, we used an online sample. The results showed that the frequency of hotspots decreases over a 1- and a 4-week delay, but the phenomenological ratings decreased only over the 4-week delay. Throughout the studies, we found less than expected consistency of hotspots.

Event correspondence in romantic couples' personal and vicarious life stories

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How individuals remember and interpret the life stories of close others, vicarious life stories, has been found to correspond on emotional tone and motivational themes to how those close others' tell their own life stories; however, very few studies have examined manifest content correspondence. We investigated the extent that 102 individuals, when recounting vicarious life stories about their romantic partners, selected the same events those partners selected for inclusion in their own life stories. Using an abbreviated Life Story Interview, participants described five important life events, which were coded for overlap with events in their partners' vicarious life stories about them, and completed the Dyadic Adjustment Scale. We found that 20.9% of personal life story events partially corresponded and 21.3% substantially corresponded with vicarious life story events. No significant relations were found between participants' correspondence scores and participants' or partners' relationship adjustment, nor between couple members' correspondence scores.

Autobiographical memories from the perspective of the 100-year-old self

Ayleen Verena Roderer

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Autobiographical events are strikingly uneven distributed across the life span. Here, a novel method was introduced to investigate the characteristics of autobiographical events across the life span unaffected by the participants' age. From the perspective of their 100-year-old self, 166 participants reported their seven most important events they will have experienced during their life and rated the phenomenological characteristics. Further, participants completed a cultural life script task and measures of well-being. Even when having an interval of 100 years to date ones most important events, life story events overlapped to a high extent with the characteristics and key properties of the life script, especially in young adults. This supports the assumption that the cultural life script guides the recall and imagination of autobiographical events across the whole life span. The method of retrospective future thinking provides new possibilities to investigate characteristics of autobiographical events across the life span.

Elaborating and evaluating on elaborations: A micro-analytic approach on parent-child reminiscing

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Although crucial for our understanding of the mechanisms involved in parent-child reminiscing, to date, only a single study has investigated the contingent probabilities of young children's autobiographical memory responses to parental elaborative, repetitive, and evaluative utterances. We here present such contingency analysis from 4.5-year olds ($N = 88$) as well as the contingent probabilities of parent's responses to children's memory responses and verbal placeholders using a complex micro-analytic procedure. Children were most likely to provide memory responses following parental open-ended elaborative and repetitive questions, and positive evaluations. Parents were most likely to provide positive evaluations following children's memory responses, and elaborations following children's verbal placeholders. Notably, no gender differences between mothers and fathers, or girls and boys were detected. The results are discussed in light of the disparate functions of parental elaborative, repetitive, and evaluative utterances on children's autobiographical memory in the context of reminiscing.

Afterlife future thinking: How people think about their lives after death

Worawach Tungjitcharoen & Dorthe Berntsen

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Research on future thinking typically focuses on self-projection into the future within one's lifetime. However, an ability to perform future projection may extend over the span of life, that is, beyond death. This study aimed to explore afterlife future thinking, a mode of future thinking that concerned how an individual imagined their life, soul, or spirit would be after their physical body stops functioning. A total of 120 university students completed a series of remembering and future thinking tasks. They were then asked to write a short personal narrative of the afterlife according to their beliefs. The results showed that afterlife future thinking was achievable and possessed characteristics resembling remembering and future thinking. However, the characteristics were rated lower than the other modes of thinking, suggesting less vivid imagery and personal significance of afterlife imagined events. There was no significant interaction between modes of thinking and belief in afterlife.

Imagining the autobiographical self across life transitions: When does specificity or narrative coherence predict later mental health?

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We examined how episodic and coherent thinking about the future affected later cognitive functioning and mental health. 106 women who were 27 or more weeks pregnant with their first child responded to online surveys during pregnancy and 3-months postnatally. Surveys assessed depressive, anxious and traumatic stress symptoms, cognitive avoidance, cognitive flexibility and rumination. Antenatally, women wrote descriptions of how they imagined childbirth and an episode of motherhood and these were coded for specificity and narrative coherence. Mediation analyses revealed that relationships between specificity when imagining childbirth and postnatal mental health outcomes (depression, traumatic stress and anxiety) were mediated by rumination. Sequential indirect relationships between narrative coherence when imagining motherhood and the postnatal mental health symptoms via postnatal cognitive avoidance and then rumination were also identified. Being able to imagine specific features of future events and coherently imagine identity-relevant domains could support effective adaptation across life transitions.

The self and other selves in autobiographical memories of important life events in Mexico, Greenland, China, Denmark and the United States

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Autobiographical memory and personal life stories are generally about the self (e.g., Wilson & Ross, 2003). However, they also feature memories of someone else's life, either as vicarious memories (Pillemer, Steiner, Kuwabara, Thomsen & Svob, 2015), reported events (Larsen & Plunkett, 1987), or as memories of events we witnessed others experience. Sometimes, those memories can become an important part of our own personal life stories, illuminating the role that other selves play in remembering our personal past. Culture might influence how individuals incorporate others into their personal life story. In this cross-cultural study, we examined the extent to which memories of important life story events refer to the individual self (e.g., I moved to Japan) and other selves (e.g., My child graduated from college).

