

1 Introduction

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The remarkable thing was that, when I chanced to return to reality, I thought no more of these terrible moments. I did not forget them, but I did not think of them. And still, they were repeated very frequently, pervading a larger and larger segment of my life.

(From Autobiography of a Schizophrenic Girl, Sechehaye, p.27, 1994)

It is human nature to think and reflect on our own personal past. Prior to the emergence of psychology as a scientific discipline, the study of personal recollections was conducted in the form of autobiographies, biographies, photography, and the writings of historians and philosophers. Today, through the use of social media networks, such as Facebook and Twitter, our need to record and share events from our own lives is more evident than ever. What stands out about our interest in autobiographical memory within the discipline of psychology is that, as psychologists, we are dedicated to using the scientific method to systematically investigate the mechanisms, characteristics, and functions of recalling past events in order to understand how and why our autobiographical memories play such an important role in daily functioning. Within clinical psychology our focus is even more specific. We want to understand how autobiographical memories are altered during psychopathology and to what extent these changes contribute to the onset and maintenance of clinical disorders. A central focus of this research endeavor is to facilitate prevention and treatment development.

In clinical psychology there is a strong tradition for investigating changes in autobiographical memory as a function of psychopathology. Central aims have been to understand the mechanisms underlying autobiographical memory disturbances in different clinical populations and to develop appropriate evidence-based treatments for autobiographical memory deficits and psychopathology. Cognitive psychologists, on the other hand, have typically investigated autobiographical memory during healthy cognition with the goal of understanding the basic structures and processes in autobiographical remembering more broadly. Nonetheless, there are a number of important similarities between the two approaches.



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First, researchers in both fields are deeply concerned with the ecological validity of their research findings; for both approaches it is paramount that the findings generalize from the laboratory to real-life settings. Second, both fields deal with memory of complex real-life events rather than simplified verbal material often used in mainstream memory studies. Third, both approaches are concerned with emotional and functional aspects of remembering as well as their interaction with individual dispositions.

In spite of these important similarities and shared interests, there is a long history of a sparse scientific exchange and cross-fertilization between researchers examining autobiographical memory in clinical disorders and researchers studying autobiographical memory in everyday life. Consider as an example the work of two eminent early scholars: Sigmund Freud and Frederic C. Bartlett, respectively. Freud is a strong representative for the clinical tradition, whereas Bartlett is often viewed as a founding father of research on everyday memory. Freud used introspection and clinical observation techniques to obtain biographies from his patients in order to identify experiences in their past that might help explain their neuroses. Bartlett studied how people remembered stories and pictures and how motivational factors and higher order cognitive structures, termed schemata, influenced what they perceived and recalled. Both Freud and Bartlett studied memory in real-life settings. Both acknowledged that memory was error prone and, importantly, that the errors often were motivationally derived and thus a highly meaningful research topic. For Freud, errors would reflect unconscious desires and wishes. For Bartlett, they reflected the operations of underlying schemata, shaped by the person's attitude, which largely was a matter of feeling and interests. Thus, both scholars underscored constructive and motivational aspects of remembering, and both were in sharp contrast to the contemporary verbal learning tradition and its usage of impoverished verbal material. Yet it seems that they exchanged very few ideas, let alone words, with one another. In his seminal book on remembering, Bartlett (1932) does refer to Freud in a couple of places, but never with great respect or enthusiasm. Conversely, although Freud might have benefited from some of Bartlett's ideas, such as the notion of schema, and although several of Bartlett's books were published during Freud's lifetime, Bartlett's ideas and observations never seemed to have gained any real attention from Freud.

Despite differences in their methodologies and in their focus of study, both scholars were ultimately interested in some of the same phenomena (such as the interplay between culture and memory) and therefore might have benefited from sharing their observations and conceptions. The



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goal of the present book is to try to overcome some of these historical obstacles by bringing together autobiographical memory researchers and clinical researchers with an interest in autobiographical memory and have them reflect on similar phenomena in the same book. Our goal is to enhance scientific exchange between researchers with different backgrounds but with a shared interest in gaining a deeper understanding of autobiographical memory in psychopathology. The book will serve methodological and conceptual integration but also show real, and maybe even incommensurable, disagreements. We believe both outcomes are helpful in promoting science.

Although it is beyond the scope of this introduction to provide an extensive review of clinical research into autobiographical memory, a number of key findings will be discussed. These key findings have stimulated a great deal of research and debate over the last thirty years, causing research within this field to expand exponentially. A literature search using the database PsychInfo revealed that of the some 2,879 peer-reviewed journal articles that had been published on the topic of autobiographical memory by September 2013, more than one-third of these articles (1,141) concern autobiographical memory during clinical disorders. More specifically, the search revealed 595 articles on autobiographical memory and depression, 129 articles on autobiographical memory and posttraumatic stress disorder (PTSD), and 265 articles on autobiographical memory and trauma. Given the rapid expansion within this field, a review of current lines of research and the theoretical models and concepts employed is pertinent.

Current theoretical models of autobiographical memory make a distinction between voluntary memory retrieval, which occurs following a strategic memory search, and involuntary memory retrieval, which occurs spontaneously without any conscious attempt at memory retrieval (Berntsen, 1996; Brewin et al., 2010; Conway & Pleydell-Pearce, 2000; Williams et al., 2007). Historically, research into these two forms of memory retrieval has been divided. The study of involuntary memory during healthy or general cognition has received little attention up until recently, while involuntary memories, or more specifically, intrusive memories of negative or traumatic events, have been studied extensively within the clinical domain (see Berntsen, 2009 for a review). Conversely, the study of voluntary memory retrieval has received attention from both cognitive psychologists and clinicians alike. However, psychologists interested in general cognition have investigated a wide variety of autobiographical memory phenomena (such as childhood amnesia, the reminiscence bump, memory accuracy, and memory qualities), while the main focus of clinical psychologists and those interested in clinical



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cognition has been memory specificity – that is, whether or not the deliberately retrieved memory refers to a concrete event in the past (Williams et al., 2007). The following short review will provide the historical context for these research directions within the study of clinical perspectives on autobiographical memory and serve as a guide for the organization of the five parts into which the chapters in this book are divided.

Intrusive memories of traumatic or stressful events as a topic of investigation gained attention in the 1970s and 1980s due to a number of factors. First, a number of major events occurred across the twentieth century that had a worldwide impact and resulted in millions of human casualties: two world wars, the Vietnam War, and catastrophic disasters of human and natural origin. The high numbers of human casualties and survivors of war led to a growing interest within the medical-psychiatric profession to investigate the long-term impact of trauma on psychological well-being (Wilson, 1994). At this time, psychoanalytic theories of psychopathology were popular. Such theories were developed based on clinical observations of individuals returning from war who reported "traumatic neuroses." Clinicians, such as Freud, repeatedly observed that dreams and repetitive thinking about the trauma were prevalent in these populations (Freud, 1920; for a review, see Horowitz & Becker, 1972). Following the end of the Vietnam War in 1975 increasing numbers of soldiers were returning to the United States reporting similar posttraumatic stress symptoms. This then led to pressure from political and social rights activists to establish a formal diagnosis of posttraumatic reactions to allow war veterans to receive proper legal rights to medical care and disability benefits (Wilson, 1994).

The combination of these societal and political pressures and the psychoanalytic tradition dominating clinical psychology at that time strongly influenced the early work of Mardi J. Horowitz on traumatic stress reactions and the subsequent introduction of the disorder of post-traumatic stress into the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* in 1980 (American Psychiatric Association, 1980). Based on clinical observations, Horowitz theorized that intrusive recollections and repetitive thinking occurred as a reaction following stressful events (Horowitz & Becker, 1972). To investigate this phenomenon more systematically Horowitz and colleagues conducted a series of experiments on college students using a trauma film paradigm (see Horowitz, 1986 and Horowitz & Becker, 1972 for reviews). These studies demonstrated that individuals reported higher levels of intrusive recollections and repetitive thinking following traumatic films when compared with films of emotionally neutral material.



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The finding that intrusive recollections occur to a greater extent following exposure to traumatic stimuli and the clinical observations that such reactions were prevalent in individuals reporting psychopathology following traumatic events led to the conception of intrusive recollections as a clinical phenomenon rather than a common psychological process occurring during daily life. Since this seminal work, a number of other theoretical models of intrusive recollection and memory for traumatic events have been developed (Brewin et al., 1996; 2010; Ehlers, 2010; Ehlers & Clark, 2000; Rubin et al., 2008).

The stress response theory developed by Horowitz (1986) and more recent clinical theories of both PTSD and intrusive recollections take the view that intrusive memories persist during PTSD and other forms of psychopathology due to incomplete or ineffective processing of the initial trauma experience (Brewin et al., 1996; 2010; Ehlers, 2010; Ehlers & Clark, 2000). Such models state that traumatized individuals report frequent involuntary and highly distressing memories of the traumatic event, which come to mind with strong sensory images and strong physical and emotional reactions. Conversely, these models also state that when individuals with PTSD are explicitly asked to retrieve memories of the traumatic event, these memories are highly disjointed and poorly constructed. However, two more recent lines of research employing diary study methodologies have brought some of the assumptions of these theoretical models into question. First, research by Berntsen and colleagues identified that involuntary or spontaneous autobiographical memories following nontraumatic everyday life events are a common psychological occurrence (see Berntsen, 2009; 2010 for reviews). This now robust finding calls into question the view that intrusive or involuntary memories are the result of traumatic stress reactions resulting from the incomplete processing of traumatic experiences. Second, studies of traumatic and nontraumatic memories in individuals with and without a diagnosis of PTSD have shown that rather than reporting difficulties retrieving traumatic memories voluntarily, individuals with PTSD show enhanced processing of traumatic memories retrieved both involuntarily and voluntarily (Rubin et al., 2011). Although a relatively new area of research, this alternative perspective has generated debate within the study of intrusive memories and has also had implications regarding our understanding of trauma and the diagnosis of PTSD (Berntsen, 2009; Brewin et al., 2010; Ehlers, 2010; Monroe & Mineka, 2008; Rubin et al., 2008). Although relatively recent, these findings are worth mentioning as these two contrasting perspectives continue to be a point of discussion within current research (see Bryant, Chapter 2; Rubin, Chapter 3; Ehlers, Chapter 6; Moulds and Krans, Chapter 8; and Berntsen, Chapter 9).



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Another highly influential finding within the research on autobiographical memory during psychopathology is that when asked to retrieve autobiographical memories to positive and negative cue words, suicide attempters (Williams & Broadbent, 1986) and individuals reporting a current major depressive episode (Williams & Scott, 1988) had difficulties retrieving specific memories, that is, memories of events that took place at a particular time and place and happened only once, for example, "I remember when I went to Kate's birthday party and her husband gave her a kitten." Instead, these individuals tended to report more general or categoric memories of repeated events, for example, "I have attended many birthday parties." In these early studies, this effect was strongest for memories retrieved following positive cues. However, an extensive review of the literature revealed that the overgeneral memory effect occurs following both positive and negative cues, using a wide variety of stimuli and methodologies in a number of different clinical populations (Williams et al., 2007).

One of the reasons this effect has received so much attention within the clinical literature is that it is associated with a number of other clinically relevant mental phenomena, such as impaired problem solving (Evans et al., 1992; Goddard et al., 1996) and difficulties imagining future events (Williams et al., 1996). Furthermore, the overgeneral memory effect is associated with delayed recovery from major depression (Brittlebank et al., 1993) and has been found to be associated with the onset and maintenance of major depression (see Williams et al., 2007 for a review of these findings).

Overall, autobiographical memories seem to play a fundamental role in the experience of psychopathology. Researchers have repeatedly identified that memories retrieved both involuntarily and voluntarily are altered during clinical disorders. In line with this observation, individuals who are experiencing these disorders report high levels of subjective distress during or following memory retrieval (Hackmann et al., 2004; Newby & Moulds, 2011). One final set of key findings, which continue to drive interest in autobiographical memories for clinicians and researchers alike, is a growing body of evidence showing that significant reductions in clinical symptoms and improvements in psychological well-being can be obtained by directly addressing changes in autobiographical memory occurring during psychopathology. Cognitive therapy for PTSD, which targets elements of intrusive recollections, has been found to be effective across a number of treatment trials (Duffy et al., 2007; Ehlers et al., 2003; 2005), and positive developments have also been seen in imagery rescripting (Brewin et al., 2009; Holmes et al., 2007) and therapies targeting memory specificity during depression (Raes et al., 2009;



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Watkins et al., 2012; for current reviews of treatment related research, see Ehlers, Chapter 6; Clark and colleagues, Chapter 7; and Watkins, Chapter 10). These findings point toward exciting future developments within this field and highlight the value of this edited collection. As this field continues to grow and evidence-based therapeutic interventions are being developed, the need for greater integration between divergent strands of research on autobiographical memory during psychopathology is paramount.

All chapters in the book offer a review and theoretical integration of findings in a particular area within clinical perspectives on autobiographical memory research. The book consists of fourteen chapters, and introduction and a discussion. The fourteen chapters are grouped in four parts, each with its own overarching topic. The four sections are as follows: Part I: Trauma and Autobiographical Memory; Part II: Intrusive and Involuntary Memories; Part III: Overgeneral Autobiographical Memories and Their Mechanisms, and Part IV: Autobiographical Memory, Identity, and Psychological Well-Being. The following serves as a brief description of the contents of these sections.

Trauma and autobiographical memory

One of the most debated questions within clinical research is how trauma affects autobiographical memory. Part I provides an overview of recent developments in our understanding of the relationship between trauma and autobiographical memory from both general cognition and clinical cognition perspectives. In the first chapter in Part I, Richard A. Bryant provides a review of the more traditional theoretical accounts of autobiographical memory retrieval following trauma, which extend from a clinical perspective. In his chapter he discusses the influence of cognitive and biological factors during the retrieval of traumatic memories in both PTSD and complicated grief. In the second chapter in this part David C. Rubin presents contrasting views of autobiographical memories following trauma by looking at how cognitive factors that are known to influence the characteristics of everyday autobiographical recollections can also be used to further our understanding of the development and maintenance of traumatic autobiographical memories. He provides evidence from both behavioral and neural studies of nonclinical and clinical populations in support of this view, which challenges the commonly held view that special mechanisms are required to explain the characteristics of memories for traumatic events. Taken together, these two chapters provide a comprehensive review of the current theoretical perspectives on traumatic memory and demonstrate the diversity of research within this



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area across behavioral, neural, and biological levels. Adriel Boals and colleagues then provide a different approach to trauma and autobiographical memory by reviewing not only negative outcomes following trauma but also positive outcomes in the form of posttraumatic growth, with particular focus on event centrality, that is, the tendency to view a traumatic event as being central to one's life story and identity. The authors outline a number of ways in which both posttraumatic stress and posttraumatic growth are associated with event-centrality and discuss ways to improve our understanding of this concept and the ways individuals provide narratives for traumatic events that may have strong implications for therapeutic interventions for PTSD. In the final chapter in this part, Deborah Alley and colleagues review developmental research and theoretical accounts of how the occurrence of traumatic events during childhood may impact the emotion-regulation strategies employed by children and adults in later life. They end by describing a theoretical account of how an avoidant-coping style in parents may lead to distortions in the processing of autobiographical memories of children following negative or traumatic events and the emotion-regulation strategies they employ.

Intrusive and involuntary memories

As discussed above the study of involuntary or spontaneous memories during psychopathology has generally focused on the retrieval of negative or distressing memories and images. The first two chapters in Part II follow in this tradition. Anke Ehlers focuses on the experience of intrusive reliving during PTSD and describes how our understanding of this phenomenon can be employed to develop effective evidence-based psychological therapies for the treatment of PTSD. She directly addresses a number of key questions regarding intrusive memories such as how these memories are triggered and their nature, content, and persistence before going on to address directly how these issues can be targeted during therapy. Ian A. Clark and colleagues then consider autobiographical memory research within the broader context of mental imagery, how both autobiographical memories and autobiographical future imaginations are relevant for treatment purposes. They present research investigating both bottom-up and top-down cognitive processing and review how both lines of research can elucidate the mechanisms underlying memory retrieval during psychopathology. They then outline how paradigms that were developed to examine imagery within an experimental setting can be employed within a therapeutic context. The following chapter by Michelle L. Moulds and Julie Krans provides a parallel review



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of the clinical literature investigating characteristics of intrusive memories with a focus on major depression. The authors then end their chapter by presenting the similarities between intrusive memories during clinical disorders and involuntary memories in the general population and highlight the need for researchers within both areas to consider their models not as incompatible but complementary. They stress the need for both bottom-up disorder-specific and top-down general cognitive models of autobiographical memory research. Finally, following the discussion presented by Moulds and Krans, Dorthe Berntsen reviews the current literature investigating involuntary autobiographical memories during both healthy and disordered cognition. She considers the characteristics of these memories and the relationship between involuntary memories occurring during everyday life and intrusive memories commonly described in the clinical literature. The presentation of these chapters together allows the reader to make a comparison of the literature related to both intrusive and involuntary memories across a variety of clinical disorders. It also shows the extent to which these two initially separate literatures are becoming increasingly more integrated.

Overgeneral autobiographical memories and their mechanisms

Overgeneral memories are autobiographical memories lacking a reference to a specific time and place. They have been observed in several clinical disorders, notably in depression (Williams et al., 2007). In the first chapter in Part III, Edward Watkins reviews the current literature on the phenomenon of overgeneral autobiographical memories during psychopathology, in particular during depression. He discusses current theoretical models, with particular focus on the relationship between overgeneral memory retrieval and rumination, one of the key mechanisms known to be involved in the onset and maintenance of overgeneral memory (Williams et al., 2007). In his chapter Watkins outlines how habitual processing of information in an abstract and generic way can help us understand the complex interplay between rumination and overgeneral memory. Furthermore, he provides evidence to suggest that psychological therapies targeting this type of maladaptive processing lead to improvements in psychological well-being. In the next chapter Kris van den Broeck and colleagues extend our understanding of the phenomenon of overgeneral memory by applying current models of autobiographical memory retrieval to borderline personality disorder. Their work reviews recent research in this emerging area investigating the presence of overgeneral memory retrieval in this unique, yet diverse,



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clinical population. They highlight a number of methodological issues that may contribute to the mixed findings identified in their review before discussing these findings in reference to the current models employed to explain overgeneral memory retrieval and its underlying mechanisms in individuals experiencing psychopathology. In the final chapter in this section, Richard J. McNally and Donald J. Robinaugh discuss traumatic reactions and overgeneral memory, in relation not only to autobiographical memories for past events, but also to future episodic thinking. They discuss autobiographical memory distortions across a number of areas of clinical interest, such as posttraumatic stress disorder and trauma survival, childhood sexual abuse, dissociative identity disorder, complicated grief, and false memories. This extensive review and discussion illustrates how wide the study of overgeneral memory and autobiographical memory during clinical disorders has become.

Autobiographical memory, identity, and psychological well-being

Part IV provides an overview of studies investigating an established line of research looking at how the personal significance of autobiographical memories can contribute to the characteristics of these memories in relation to both clinical disorders and psychological well-being. First, Tilmann Habermas employs narrative theory within the psychoanalytic tradition to discuss how different features of memory processing can influence psychological well-being across a range of psychological disorders such as PTSD, panic disorder, depression, and borderline personality disorder. Clare J. Rathbone and Chris J. A. Moulin then review research into self-identity and autobiographical memory in a number of other clinical contexts. Their review discusses research investigating the relationship between autobiographical memory, identity formation, and self images before extending this line of discussion to cases of amnesia, schizophrenia, and autism. In the third chapter in this part Adam D. Brown and colleagues discuss the role of self-identity in relation to posttraumatic stress by considering how changes in self-identity can have implications for psychological interventions. The authors review recent experimental research investigating self-identity, in conjunction with, and distinct from, autobiographical memory, as an important factor in the pathogenesis of PTSD. They also examine recent work demonstrating that shifts in self-views and changes in self-efficacy correspond with changes in processes that influence onset and maintenance of PTSD. Finally, Lynn A. Watson and Barbara Dritschel discuss the relationship between self-identity and emotional processing during autobiographical