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The Integrative Function of Narrative Processing: Autobiographical Memory, Self-Defining Memories, and the Life Story of Identity

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I n the first author's psychotherapy practice, a man I will call James (not his actual name) came to see me on the advice of his former girlfriend. She had told him that he should pursue psychotherapy to work on his difficulty with expressing any vulnerability or sense of commitment in relationships. James explained to me that she was not the first woman to express this frustration with him. In fact he had developed a pattern of "shutting down" and withdrawing from intimacy in each successive long-term relationship that he had entered. As I took his history and learned more about him in the first weeks of our work together, it became clear that he had grown up in a family that was highly defended against emotion and intimate communication. His father had died when he was 6, and he had virtually no memories of his family mourning together. He described his mother and older sisters as doing their best to go on with their lives and hardly ever looking back to recognize or express their loss. He claimed that his father was seldom mentioned in the family nor could he recall seeing his mother or sisters cry.

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As we focused on his current problems with romantic relationships, and especially his passivity and inability to express his feelings, I raised the obvious connection to his family's stoic style of communication. At that moment he told me of a memory that suddenly came to him and as he did, tears welled up in his eyes and then flowed freely as he described the memory's events.

One of his elementary school friends was having a hard time at home and happened to mention it to James. James, trying to show solidarity with his friend, agreed that the friend's father was being unfair. Suddenly, the friend turned on James and asked him how he would know since he didn't have a father. James was crushed, but said nothing. He went home that afternoon and kept the conversation to himself. That night he lay awake in his bed, sobbing over what his friend had said. His oldest sister must have heard him eventually and came into his room to check on him. She helped calm him down and he finally went to sleep. He recalled a mixture of gratitude for her comfort and embarrassment at his tears. The next day they did not speak of the episode.

In telling the memory to me, James attempted to minimize his current tears and to present the events in a slightly bemused tone. What was very apparent, however, was the power of this one specific memory to express major themes of James's identity. To show vulnerability and express sorrow were taboo behaviors, to acknowledge loss was to risk opening up a floodgate of pain that no one in the family felt equipped to endure. This brief narrative had become a touchstone experience in James's self-understanding, and more than any wordy interpretation could, it captured compactly and expressively his problem with the risks that intimate relationships demand. In subsequent weeks of therapy, James and I could make reference to this memory as a shorthand example of his fear of intimacy. In fact, the image of a boy hiding his tears in his darkened room became an extremely useful metaphor in our conversations.

James's boyhood memory of his friend's remark is what I have previously described as a "self-defining memory" (Singer, 1995; Singer & Moffitt, 1991–1992; Singer & Salovey, 1993). My interest in these affectively intense and vivid memories first emerged during my work on a study of the cardiovascular patterns of different affective states (Schwartz, Weinberger, & Singer, 1981). In this research, we asked individuals to recall a past event that evoked strong emotion in them and then to "re-live" this event in their minds. Though the ebb and flow of their systolic and diastolic blood pressures in response to these internal stimuli was a remarkable phenomenon, I found myself equally astonished by the participants' capacity to recall and become fully engrossed in their personal memories. I soon learned that I needed to have a box of tissues on hand for participants who received my request for sad memories. I also watched with a bit of concern as participants' necks reddened, jaws clenched, and fists balled up when they re-lived memories of anger and rage.

I came away from this research determined to gain a better understanding of why certain memories could have such an enduring and emotional hold over individuals. In time, I also began to wonder about the very nature of these memories: Where do they fit within the human information processing system?

What are their structural features and organization? What role do they play in the overall personality and sense of identity that define us as unique individuals?

These questions have guided my research on self-defining memories in the two decades since. Self-defining memories have the following five characteristics:

1. Vivid

2. Affectively intense

- 3. Repetitively recalled
- 4. Linked to other similar memories

5. Focused on an enduring concern or unresolved conflict of the personality

Vividness

These memories have a strong sensory quality, usually visual, for the participants who recall them. When asking for vividness ratings on a 0–6 point scale, I have found that the mean value over numerous studies is at least 4.5 and often higher. Participants will describe the memory as having the quality of a "movie inside their head" or a powerful evocative daydream. Similarly, individuals indicate that these memories have the power to affect them emotionally not just in the past, but also at the very moment of recollection. Ratings of specific emotions of happiness, anger, sadness, and pride often reach 5 and 6 on the previously mentioned rating scale.

Repetitively Recalled

Individuals return to these memories as touchstones in their lives; they are useful sources of information about what they want or don't want in their lives. They are commonly retrieved to serve as reference points to provide guidance or reinforcement with respect to specific current situations in the individuals' lives. In my discussions with numerous research participants and psychotherapy clients over the years, individuals will use the following language, "Whenever I am down, I will think of that memory of . . . and it will cheer me up" or "Before a big game [performance] [test] [meeting], I will recall that memory and it will make a big difference in my attitude." This same process can also work in a more negative direction as when individuals explain to me, "Every time I try to make peace with my dad, I can't help but recall my memories of the times he hurt me" or "Each time I try to overcome my fear, I remember the time that I . . ."

Linked to Other Similar Intense Memories

This property consists of what Silvan Tomkins (1979) called "psychological magnification." With the exception of traumatic sudden events in one's life, usually the life events that become self-defining for the personality are ones that have been repeated over time with similar patterns and affective responses. An individual's sense of mastery or failure grows out of an accumulation of linked experiences that reinforce this self-perception. As Tomkins suggested, the repetition of

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events with similar outcomes and affective sequences magnifies their significance within the self and leads to the development of schemas based in these patterns. We may then tend to perceive new events through the lens of these schemas and create self-fulfilling interactions that further reinforce these "scripts" in our lives. Self-defining memories, to the extent that they capture characteristic and significant aspects of individuals' self-understanding, are likely to be connected to a network of related memories that share similar goals, concerns, outcomes, and affective responses.

Unresolved Conflicts or Enduring Concerns

Finally, self-defining memories connect to more than the transitory interests or activities of individuals. Given their enduring relevance and affective intensity for individuals, these memories reflect long-term and central areas of concern or conflict within the personality. These memories often touch on the timeless themes that shape individuals' unique sense of identity — conflicts with parents, love relationships lost or gained, sibling rivalries, personal failures or triumphs, moments of personal discovery or insight, moments of ethnic, racial or gender awareness, and so forth.

In order to test out these assumptions about the role of self-defining memories in personality, my colleagues and I developed a methodology for collecting selfdefining memories and examining their relationships to both goals and affect (Moffitt & Singer, 1994; Singer, 1990; Singer & Moffitt, 1991–1992). We have also examined the role of self-defining memories, and autobiographical memories in general, in mood regulation and motivation (Josephson, Singer, & Salovey, 1996; Moffitt, Singer, Nelligan, Carlson, & Vyse, 1994). Through analysis of self-defining memories raised by clients during the course of psychotherapy, we have also explored their efficacy as a source of understanding and evocative communication between client and therapist (Singer, 2003; Singer & Blagov, 2003; Singer & Salovey, 1996; Singer & J. L. Singer, 1992, 1994).

In this book on advances in our understanding of the relationship of memory and self, we would like to return to my original questions about self-defining memories. How do certain memories, among the countless we experience in life, come to have an enduring and influential hold over us? What are the structural features and organization of these memories in a system of autobiographical memory? And what is the unique role of these memories in the individual personality? Why indeed does a memory bring tears to James's eyes, while simultaneously revealing core concerns of his sense of identity and capacity for intimacy?

Due to the exciting progress in the fields of cognitive and personality psychology, our ability to answer these questions has changed dramatically in the 20 years since these inquiries were first raised. Our goal in this chapter is to locate selfdefining memories in two contemporary and complementary models of autobiographical memory and personality. To accomplish this task, we describe advances in current conceptions of personality and modes of information processing. Building

on these ideas, we then explicate the relationship between a model of autobiographical memory and a model of personal identity.

Our governing thesis is that self-defining memories are a subset of "narrative processing," or storied thought (Singer & Bluck, 2001). Narrative processing has the capacity to integrate the cognitive, affective, and motivational subsystems of the personality in the service of unified functional goals. To elucidate the connection of narrative memories to specific goals of the personality, we draw on Conway and Pleydell-Pearce's (2000) model of autobiographical memory and the self. What distinguishes self-defining memories from other narrative memories, which are also linked to goals in the self-system, is the relationship of self-defining memories to goals that reflect central themes of identity within the personality. By "Identity," we mean the system of the personality that is responsible for creating an overall sense of coherence and meaning within the individual life. In the framework we describe, identity is synonymous with the autobiographical narrative individuals construct to weave together their past, present, and anticipated future into a unified whole (McAdams, 1985, 1990, 2001a).

Finally, individuals' capacity to use narrative processing to connect significant episodes from their past with an ongoing life story allows for the development of autobiographical reasoning, which Staudinger (2001) asserts is the foundation of wisdom about a given life and life in general. To trace the route a particular selfdefining memory takes from recollection to the end point of life wisdom, we begin with a definition of personality.

PERSONALITY AS A SYSTEM

To define the unique contribution of self-defining memories to personality, we will first need a working conception of personality. In his summary of key issues in contemporary personality theory and research, Pervin (1999) contrasts approaches that emphasize personality processes or "parts" versus perspectives that take the "whole" of personality into account (p. 693). For example, Mischel and Shoda (1999) offer a representative definition of personality from a systems perspective. Personality consists of a set of psychological processes ". . . that are dynamically interconnected within an organized set of relationships, a unique network that functions as an organized whole that interacts with the social-psychological situations in which the system is activated and contextualized" (p. 199).

Systems perspectives on personality can vary in which aspects of systems interaction they emphasize; for example Magnusson is largely concerned with the person–environment interface, while Little (1999) targets purposeful action that is a major output of the personality system. Magnusson (1999, p. 220) also notes that systems approaches can ask questions about current functioning (synchronic perspective), the developmental history of the system in a given individual (diachronic perspective), or the development of the system across the whole species (evolutionary perspective).

In our analysis of self-defining memories, we will emphasize the interaction of intraindividual psychological processes from a current functioning or synchronic perspective. In applying a systems view of personality, we emphasize the following principles that apply to all working systems (Schwartz, 1990; von Bertalanffy, 1968). Every system contains a hierarchical structure that organizes its levels from most simple to most complex; complex functioning of the system depends upon the satisfactory functioning of each successive level of the system. Systems exist for functional purposes; a system has at least one dedicated goal toward which its effective functioning will carry it. To achieve this goal, the system integrates its various subsystems into united and synchronized responses that meet the demands of goal pursuit. All systems rely upon communication or feedback within and across the level of the system; this exchange of information allows for activation, termination, or maintenance of activity at each level. Positive feedback loops lead to the activation or acceleration of system activity; negative feedback loops indicate that current activity can be dampened or shut down. Finally, systems rely on an executive control function that converts the system's intended purpose into a sequence of information and action across the levels of the system; this executive control also continually evaluates the status of the system in its goal pursuit. One only needs to think about the integrated coordination of the various subsystems of an automobile to capture the complexity and elegance of a working system. Ignition, engine, cooling, and exhaust systems all combine in service of the steering and braking systems, which translate the complex symbolic intentions of the driver into the planful pursuit of travel to a particular destination.

These fundamental systems principles may be summarized as:

Integration of subsystems into a unified whole through feedback mechanisms Hierarchical organization of subsystems

Dedication of the system toward a functional goal

Executive control system that monitors and evaluates the overall system's goal status

In applying a systems perspective to personality and the role of self-defining memories within the personality, we focus on the interaction of the three most directly relevant systems, cognition, affect, and motivation, leaving aside discussion of the psychophysiological and behavioral systems, which mediate the interaction of the person with internal or external physical cues. Our argument can be summarized in the following way. The role of the personality system within the individual is to achieve the coordinated integration of thoughts, feelings, and behaviors in the pursuit of goals that become active in given person–environmental interactions. The priorities assigned to the various goals that may be activated and that require responses from the personality system are ultimately dictated by the executive control system, which we submit is the role that *identity* plays in personality. McAdams (2001a) writes that identity performs the function of integrating the various aspects of the personality:

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It brings together skills, values, goals and roles into a coherent whole. It brings together what the person can and wants to do with what opportunities and constraints for action exist in the social environment. It brings together aspects of the remembered past with the experienced present and anticipated future. (p. 643)

In the hierarchical organization of personality, self-defining memories are momentary expressions of identity that are activated in the service of its integrating function. The revival of a self-defining memory and its consideration in consciousness integrates the cognitive, affective, and motivational systems into a unified entity that allows the personality as a whole to focus on a specific functional priority, as determined by one's sense of identity.

The engine of integration that links memories and identity in this effective and focused way is a subsystem of the Cognitive System – what we call "narrative processing." Not only are self-defining memories critical narratives we recall about our lives, but also identity itself can be understood as an unfolding narrative or life story (McAdams, 1985, 1990, 1993, 2001b). Our capacity to translate information processed cognitively into "storied thought" is our means of linking specific past experiences to the enduring concerns of the overall personality system, as expressed through a sense of coherent and ongoing narrative identity. Although most autobiographical memories that remain with us take on a narrative form, it is the particular connection of self-defining memories to the most critical narrative themes of identity that differentiate them from other types of narrative memories. If narrative identity is the autobiographical text of an entire life, self-defining memories are uniquely eloquent passages that dramatize the major themes of the overarching narrative.

To understand how this last analogy actually works in the stream of conscious thought, it is necessary to examine the story-generating mode of information processing — narrative processing.

NARRATIVE PROCESSING IN THE PERSONALITY SYSTEM

The first three decades of the information-processing era in psychology, the 1950s–1970s, was dominated by what Bruner (1986) has called the "paradigmatic mode of thought." Paradigmatic thought seeks to create categories and identify abstract principles that underlie the entities to be classified. Pillemer (1998) offers this quote from Srull and Wyer (1990) as an example of the preference in psychology for abstract categorization,

Even undergraduates understand that the truly interesting question is how we ever come to represent abstractions from the particular world in which we live — to develop categories and impressions of *types* of people, *types* of situations and so on. (p. 166, cited in Pillemer, p. 5)

In contrast to this analytic and semantic mode, Bruner (1986), along with Polkinghorne (1988) and Sarbin (1986), have asserted their interest in a second distinct mode of thought, the *narrative mode*. Narrative thought organizes information not by abstract category or concept, but through the devices of story, including plot, intention, character, outcome, and theme. For example, if asked about the outcome of last fall's soccer season, a coach might reply that, "We were 6 and 6 with a young team and an inexperienced goalie." Alternatively, the coach might say, "In our last game, our young players finally came together as a team. They were down by a goal, but they rallied behind each other and finally pulled ahead. Our goalie, who was on a real learning curve this year, made a critical save and we managed to win, allowing us to make it to .500 for the season."

This second form of communication translates the same basic facts into a story, replete with plot twists, suspense, key characters, and an underlying moral or theme. This form of thought, what we call *narrative processing*, is not unique to the stories we tell each other in conversation or express in letters, diaries, and literature. Human beings employ narrative processing in their private thought about past experiences, daydreams, fantasies, and dreams (Singer & Bluck, 2001).

The importance of narrative in human thought has become a prominent theme in psychology in the last decade, though this emphasis can be traced back through the work of Tomkins (1979), Erikson (1959), Murray (1938), and Adler (1927) (for recent reviews on narrative approaches in personality, see McAdams, 1999, 2001b). Narrative processing vivifies ideas by linking cognitive material directly to the affect and motivation systems of the person. Once ideas are expressed in a storied form, they engage mental imagery, suspense, and a focus on goal-linked outcomes. The remembered story or the narrative fantasy is the closest we can come to engaging in an actual physical interaction without actually stepping forward and acting.

There is extraordinary evolutionary adaptive value to being able to "test the waters" psychologically before actually diving in and taking action. Human beings' capacity to listen to their own stories, as well as to share stories with others, must have marked a profound advance in our initial capacities to communicate to each other through language. We could not only say, "Be careful," to other people, but we could narrate a remembered encounter filled with imagery and emotion that would make our message even more convincing and compelling. It could tell us what was there, what form it took, what it made us feel like, and what we ought to do about it in the future. By engaging multiple systems of cognition, affect and motivation in the personality, narrative processing could direct attention and organize action in a way that allowed a more unified pursuit of specific goals to become active in consciousness.

To be even more precise, if we look at a contemporary definition of narrative offered by Gergen and Gergen (1988), we find embedded in this definition the three integrated systems of cognition, affect, and motivation. Narratives are based in the following criteria adapted from Gergen and Gergen (1988, pp. 19–22):

Establishment of a valued end point Selection of events relevant to the goal state

Ordering of events Establishing causal linkages Demarcation signs

According to this definition, narrative processing harnesses the stream of consciousness and directs it to focus on a particular valued end. In establishing this end point, it selects a subset of relevant events that provide information about the status of an activated goal. This goal status (i.e., attained or not) triggers the quality and degree of affect experienced (e.g., triumphant joy, tragic loss, vengeful anger, etc.) The events that lead up to goal outcomes are placed in a temporal or sequential order that outlines a series of actions or activities that either enhance or obstruct attainment of the particular goal. By ordering events, inferences may be drawn about causal relationships of events within the narrative. Finally, narratives have beginnings, middles and ends; they thereby set parameters on the extent of goal pursuit, the duration of the affective experience and the distinctiveness of this particular narrative from others that might emerge in consciousness.

In this delineation of the specific properties of narrative processing, we can see how each subsystem of the personality is recruited to interact with the other subsystems.

In narrative processing of a past experience:

The cognitive system addresses the following questions,

What is the content of the narrative?

- What is the structure or format of the narrative?
- The affective system addresses the question, What feeling does this narrative evoke?
- The motivational system addresses two distinct questions, What goals are active in the narrative?
 - What function does this narrative serve for the person?

Over the years, our research on narrative memories has explored each of these five questions. In asking what a memory is about, we have relied on a variety of methods for coding the content of the memories (Singer, Sadler, & Musicant, 1995; Singer, Albert, Lally, Lizotte, Molina, & Scerzenie, 2000; for a recent content coding system, see McLean & Thorne, 2001; Thorne, McLean, & Lawrence, 2004; Blagov & Singer, 2004). These content coding procedures can divide memories by the connotative aspects of the memory (e.g., memories about sporting events, graduations, relationship issues, ethnic pride, etc.) or by denotative aspects (e.g., the coding of memories for underlying motives of intimacy, power, achievement, or generativity).

In asking about a memory's form, we have most often examined the degree of specificity present in a given memory narrative (Blagov & Singer, 2000, 2004; Singer & Moffitt, 1991–1992; Moffitt et al., 1994). According to well-established principles of human cognition, individuals tend to organize information according

to increasing levels of abstraction or generality (see Gibson, 1979 for perceptual organization; Rosch, 1978 for concept formation; and Neisser, 1986, 1988 for memory organization). As discussed extensively in the work of Barsalou (1988) and Williams (1996; Williams & Broadbent, 1986), narrative memories can be evaluated for their reference to a unique event in time, an extended summary of several temporally linked events, or a generic amalgam of similar events repeated over discrete intervals of time.

Based on this research and our laboratory's earlier efforts to distinguish these different types of memory forms, we have recently developed a comprehensive manual for the categorization of narrative memory structure (Blagov & Singer, 2004; Singer & Blagov, 2000). Later in this chapter, we will report on some of our first research efforts to apply this scoring procedure to a sample of self-defining memories.

Most narrative memories, and especially self-defining memories, are hardly sterile communications about past events that inform us in a methodical manner about the content, time period, and location of previous experiences. To the contrary, they are affectively charged reconstructions of past events that have the power to shake our rational understanding of past experiences, bias our ongoing processing of information and intensify the importance of current events that bear similarities to the situations recollected in these memories. The affect system is clearly implicated in narrative memories and adds an evaluative dimension to every memory. Is the memory positive or negative (or both) in hedonic value and what is the intensity of the positive or negative affect associated with the memory? Of course, the particular affective value of a memory is not fixed; it can shift over time and vary depending on the situation in which it is recalled. Still, any full account of narrative memories must take into account their capacity to enlist strong responses from the affective system of the personality.

Finally, as with any aspect of thought or behavior generated by individuals, we can ask what purpose or function this particular product of thought, narrative memories, plays in the service of certain ends or active goals of the personality. The narrative in the memory highlights the status of a particular goal pursuit, which is the obvious plot engine that drives the particular story. In addition, Pillemer (1998, 2001), Staudinger (2001), and Habermas and Bluck (2000) have all written recently about the functional purposes served by recall of a particular memory. Pillemer (1992, 1998) has identified communicative functions related to rhetorical and persuasive devices in conversation, psychological functions that highlight the use of memories as guides toward desired ends and away from unwanted outcomes. Staudinger (2001) perceives self-reflection about narrative memories as one form of autobiographical reasoning, which also includes life review in which individuals reflect about their lives as a whole, as opposed to about a specific self-defining memory.

Having established the integrative function that narrative processing performs for the overall personality in bringing together cognition, affect and motivation, we now turn to how one product of narrative processing, narrative memories, are retrieved from our overall autobiographical knowledge base. As we shall see, the key to retrieval of narrative memories from this base is their relationship to a hierarchy of goals in the personality.

NARRATIVE PROCESSING AND AUTOBIOGRAPHICAL MEMORY

It would appear that we have reached a reasonable answer to the question that began this chapter — Why do autobiographical memories have the power to move us to tears or laughter long after the originating events have passed and veridical details of the memory have faded? Autobiographical memories are a subset of narrative processing or storied thought that serves the particular function in consciousness of integrating the subsystems of personality to create an imagerybased approximation of goal pursuit preparatory to actual goal-directed behaviors. This linkage of an autobiographical knowledge base to the working goals of the self-system is in fact the fundamental premise of the landmark autobiographical memory model proposed by Conway and Pleydell-Pearce (2000) in a recent *Psychological Review* article.

Conway and Pleydell-Pearce propose an autobiographical knowledge base organized at three levels of specificity - event specific knowledge (sensory details, facts, and images), general events (categories of events linked across relatively brief time periods or organized by shared theme), and lifetime periods (large units of time in individuals' lives that reflect particular overarching goals and activities e.g., early years of marriage, graduate school, or a period of financial hardship). In order to retrieve specific autobiographical memories, individuals must draw on the autobiographical knowledge indexed at these three levels and reconstruct the desired recollection. Conway and Pleydell-Pearce argue that the parameters for reconstruction and retrieval of these memories are set by the relevance of this autobiographical knowledge to goals activated within a working self-system. The working self-system, akin to working memory, is a temporarily activated self that consists of a particular hierarchy of goals. These goals then serve as retrieval cues for particular autobiographical memories. However, it is important to acknowledge the reciprocity of this memory-self relationship. Any particular hierarchy of goals activated within a working self will be limited by knowledge of previous experience with these goals and the outcomes that accrued.

Once memory-relevant goals are cued by internal or environmental stimuli, a search process for pertinent autobiographical knowledge is instantiated. Equally important for this self-memory model is that goal relevance also serves as a control process for terminating search activities. Once memories relevant to the activated goals are reconstructed and retrieved, a negative feedback mechanism in the working self shuts off the search process.

The working self-system and the autobiographical knowledge base are both components of an overarching self-memory system. This self-memory system encompasses the different subsystems of personality and putatively contains the

ultimate hierarchy of long-term goals from which different working selves selectively draw their situationally contingent hierarchies. The self-memory system serves as the highest executive system of the personality and works to regulate affect and maintain relative equilibrium among the various subsystems of the person. Once a working self activates a goal-related search in the autobiographical knowledge base, the self-memory system guides the selection and elaboration of goal-relevant cues that access specific autobiographical memories, the evaluation of selected memories for goal compatibility, and the bringing forth of autobiographical knowledge into consciousness. The activation of particular memories is always weighed against the general needs of the overall self for affect regulation and maintenance of an acceptable self-concept. For example, as Conway and Pleydell-Pearce (2000, p. 268) note, when memories activated by a working self indicate a great discrepancy between the individual's resources and what is needed for goal attainment, the search process may be terminated to avoid intense disappointment or distress. Conway and Pleydell-Pearce write that the self-memory system draws on autobiographical knowledge to place ". . . consistency and plausibility constraints on what goals can be held by the working self' (p. 271). Additionally, the self-memory system must also respond to other processing demands that require attentional resources. Activation of a memory may be terminated when external stimuli require redirection of attention away from internal products of consciousness.

One question raised by the Conway and Pleydell-Pearce model is what might determine the particular importance of certain memories in the autobiographical knowledge base and of certain goals in any given working self. They present a few suggestions for consideration. Drawing on Higgins's (1987, 1989) self-discrepancy theory, they propose that individuals generate images of ideal, ought, and actual selves; goals and memories that most closely reflect the ought or ideal selves may be more affectively laden, as would be memories that most dramatically reflect discrepancies from these states. Although this explanation makes good sense, it takes us to a dead end in pursuit of our original question about why certain memories matter more than others. We are left to say only that individuals hold preferences for different self-images and that the value accorded to particular goals or memories are only a function of those preferences. Yet how do these preferences acquire their particular weight and importance to the self?

A second possibility and, what we find a more fruitful direction, is their suggestion that goals and memories in the self-memory system are particularly sensitive to developmental demands across the lifespan. At each stage of life, we are confronted with particular developmental challenges related to growth, autonomy, achievement, intimacy, generativity, acceptance of change, loss, and aging. These life milestones may indeed dictate dominant priorities within the selfmemory system and encourage a reshuffling of goal-memory hierarchies. Conway and Pleydell-Pearce draw on this idea to account for phenomena like childhood amnesia and the reminiscence bump. With regard to childhood amnesia, the developmental priorities of adults are so massively discrepant from toddler and preschool children that there are virtually no relevant goal cues retained into

adulthood that would allow us to reconstruct autobiographical knowledge from infancy. The result is a near total loss of specific memories from childhood.

The reminiscence bump is a widely noted cognitive phenomenon in which individuals older than 35 years tend to show better retention of memories from the period of 10 to 30 years old than any subsequent period with the exception of the most immediate years of recall (Rubin, Rahhal, & Poon, 1998; Rubin, Wetzler, & Nebes, 1986). Conway and Pleydell-Pearce suggest that the better retention for these adolescent and young adult memories is critically related to the individual's first consolidation of a sense of identity. This sense of identity incorporates enduring personal goals related to the major themes of achievement, power and intimacy that will dominate adult life (McAdams, 1985, 1990). Conway and Pleydell-Pearce also acknowledge adolescence as the point when individuals begin to organize autobiographical knowledge into a self-narrative that eventually becomes a life story account of personal identity (Habermas & Bluck, 2000; McAdams, 1990). The connection of particular memories from the reminiscence bump period to the origins of this overarching life story may give these memories a special prominence and enduring affective power in the self-memory system.

Although there may be a particular surge of memories from adolescence and young adulthood due to their linkage to identity formation, this developmental model clearly implies that other later memories linked to developmentally salient issues of later adulthood (e.g., parenthood, marital discord, career advancement, etc.) would also have the power to rise to the top of the self-memory hierarchy (for empirical support of this assertion, see Conway & Holmes, 2004).

One final point Conway and Pleydell-Pearce make with regard to this developmental argument is the influence of sociocultural and generational cohort effects. Certain memories may gain prominence in the self-memory system due to their connection to culturally significant events that coincide with individuals' own age cohort. For example, individuals who grew up in the 1960s may be more likely to retain memories of civil unrest or of confrontation with parents than individuals who grew up in the more complacent period of the 1980s. In a related vein, individuals who were raised in a more traditionally religious region of the United States, such as the Deep South, might place a more central importance on spiritual experiences than individuals raised in a more iconoclastic urban setting.

Having presented Conway and Pleydell-Pearce's model of autobiographical memory and the self, we can now return to an exploration of the particular power of self-defining memories in the personality. Narrative memories are linked to a hierarchy of goals within the self-memory system. This hierarchy of goals is in part determined by developmental and cultural factors related to the formation of a narrative identity that continues to evolve over the lifespan of the individual. We propose that self-defining memories are those memories that have the most relevance to the life story of identity fashioned by the individual. If this were the case, these memories would play a particularly important role in the self-memory system. They would be exactly those memories that make the most direct connection between the autobiographical knowledge base and the working self-system. Contained in their knowledge base would be both event specific detail and

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thematic commentary on the goal outcome for particularly critical questions of the life story ("What is it like to be loved?" "What happens to me when I take a risk in a career decision?" "How did I handle the death of a family member?").

NARRATIVE PROCESSING AND IDENTITY

To examine this proposed role for self-defining memories in the self-memory system, it would be useful to look more closely at a life story perspective on identity. Refined over the last two decades, McAdams's life story theory of identity (1985, 1987, 1990, 1993, 2001b) sees individuals as the authors of an elaborate and evolving autobiographical narrative that links together past, present and future aspects of the self, while providing a sense of purpose to thoughts and behaviors. Beginning in adolescence, we craft a personal story that identifies important archetypal characters, significant turning points, and imagined outcomes. This story, which we tell to ourselves and, in occasional intimate moments, to others, both links us to shared cultural values and differentiates us from every other person with whom we share the society. As McAdams suggests, our story is not a result or by-product of our sense of identity, but rather the story itself constitutes the primary means by which we express and understand who we are as individuals in a given epoch and society.

In his recent framework of personality, McAdams (1995, 1996) asserts that there are different levels by which we come to know a person and through which a person achieves self-knowledge. At the trait level, we learn about a person's decontextualized temperamental and behavioral tendencies. Trait measures, such as the Big Five (Costa & McCrae, 1985), offer a first pass at understanding a person and how they might behave across a variety of situations. However, this level of knowledge will be less effective in providing more specific information about how an individual will adapt to the demands of particular developmental, situational or role challenges, requirements, or both.

A characteristic adaptations level of understanding offers us an opportunity to evaluate individuals' social-cognitive responses to particular contextual presses. This level of personality analysis examines individuals' social motives (e.g., intimacy, power, achievement), coping styles (e.g., defensiveness, problem-focused behavior), goals (e.g., current concerns, personal strivings, life projects), and developmental responses (e.g., life tasks, ego identity styles, levels of generativity).

Finally, and most relevant to the present discussion, there is the Life Stories level of personality. At this level, research addresses the question of how individuals construct a sense of overall meaning and purpose from their life experiences. In effect, this level examines individuals' efforts to answer the questions, "Who am I?" and "What is the meaning I attribute to my life?" Although one could know a great deal about a person by identifying their temperamental or behavioral tendencies and their characteristic responses to particular situational and developmental demands, a full understanding of a person and his or her unique role in a given society would not seem possible without an examination of the personal narrative he or she offers to the world.

The life story expresses the individual's effort to step back from both goal pursuits and accumulated autobiographical knowledge and weave these two aspects of self-understanding into an overall coherent picture of the self. In other words, we are asserting that the self-memory system is not simply a mechanical regulatory system that measures self-goal discrepancies and automatically makes feedback adjustments. Building on Conway and Peydell-Pearce's tentative linking of the self-memory system to the life story, we propose that the self-memory system is itself guided by an overarching life story narrative. Within this narrative, we define the balance in our lives between intimacy and power. We identify the archetypal individuals from our life who engender the strongest positive and negative affective reactions. We subscribe to an ideological setting that paints the overall tone of our story as optimistic or pessimistic about the outcomes of our actions and surrounding events. We also come to identify particular episodes from our lives as eloquently expressive of what matters most to us in our personal story. These episodes comprise our life turning points, peak and nadir experiences, and self-affirming incidents.

According to McAdams, as our life stories evolve over a lifetime, we become increasingly concerned with the legacy that we will generate at our stories' appointed end. Individuals' stories turn to questions of lasting accomplishments, the impact they have had on offspring, and the contributions they have made to communities or institutions. These concerns often lead to a certain narrowing of focus in order to marshal energies toward a particular desired outcome. This more directed effort within the self-memory system might also account for the power of particular goals and memories that are relevant to these prominent generative concerns of the individual. Individuals can begin to define themselves by particular "central activities" of their lives (Fingarette, 1988; Singer, 1997, ch. 2), such as a specific occupation, parental role or community position. These overarching self-definitions tend to resonate across all other dimensions of individuals' lives, influencing their social relationships, leisure activities, and private thoughts. To understand the comprehensive power of these central activities, Fingarette suggests one perform the mental exercise of waking up one day with this central role vanished from one's life. How many other defining aspects of one's identity would be swept away by this sudden change? The reduction of side plots or digressions as the life story increases its focus may serve to intensify the power of particular narrative memories related to the central narrative.

THE RELATIONSHIP OF SELF-DEFINING MEMORIES TO NARRATIVE IDENTITY

By turning the diverse aspects of our personal experiences across the lifespan into a unified story, we repeat at a macro-level the same integrative activity achieved by the narrative processing of thoughts and images that emerge in the momentary stream of consciousness. That is, we link together the subsystems of personality cognition, affect, and motivation and focus their organizing functions of categorization, evaluation, and goal selection in a concerted and directed fashion. This

conception of identity as a life story, which in turn performs an executive control function in the system of personality, brings us to the conclusion of our quest for answers about self-defining memories. Self-defining memories retain their affective power over time due to their unique connection to the primary goals articulated by individuals' overarching life stories. Individuals' life stories are psychosocial constructions that respond to the developmental phases and cultural demands of a given life in a given societal epoch. As the goals salient in individuals' life stories shift over time, the relative power of self-defining memories to evoke feeling will also shift. Yet just as the characters of a fictional work retain a relative sameness and coherence over the course of the story, so too do actual persons stay true to certain defining concerns and interests. This consistency insures that certain selfdefining memories will endure in meaning and affective intensity over a lifetime, despite developmental and cultural changes.

Regarding the structural features and organization of self-defining memories, we can conceptualize them as one form of narrative processing, the output of which is maintained and recollected from the autobiographical knowledge base, as guided by the goal hierarchies of shifting working selves. Self-defining memories may differ in specificity, depending on the extent of elaboration and search effort allocated by the self-memory system. Lack of specificity may reflect an attenuated connection to active goals or a more defensive avoidance in the interest of mood regulation and self-concept protection (for empirical support for this position, see Blagov & Singer, in press). Finally, the unique role of self-defining memories would appear to be an efficient shorthand method of signaling to individuals the overarching themes of their larger life narrative. To use a crude analogy, they are the *Cliff Notes* of narrative identity.

Returning to the case study that began this chapter, in James's private sense of self, he has woven a life story of a boy overwhelmed with sadness who is not allowed to mourn, who fears that his own tears will drown him, and of a man who floats from relationship to relationship, withdrawing before the risk of loss could become palpable. In the self-defining memory he presented, he has captured his narrative identity's central conflict and desire — the recognition of loss, the pain of acknowledging it, and the wished-for comfort from a loved one. This memory belongs within the critical chapters of his life narrative and within the memory are this narrative's essential themes. The dynamic connection between the two is a function of the human information processing system's capacity to translate the events of our lives into a narrative structure that stores meaningful information both in memory and within the self.

AUTOBIOGRAPHICAL REASONING, SELF-DEFINING MEMORIES AND THE LIFE STORY

Before concluding, there is one final issue to consider — all narratives are implicitly dialogical (Hermans, 1996); they invoke a response from the self and others that have "read" or "listened' to them. Stories have audiences, real or imagined.

Unlike a mechanistic or thermostatic model of personality, any life story model of identity necessarily includes the concept of self-commentary and interpersonal response (Thorne, 2000). As creators of our life stories, we are also the audience and reviewer. Staudinger (2001) calls attention to the point that life reflection is more than simply reminiscence; it is reminiscence plus active analysis of the meanings extracted from a life review. In fact, Staudinger argues that a meaningful definition of "wisdom" is the capacity to reason about autobiographical experiences from one's life. She suggests that wise individuals do not simply re-live old memories, they use the memories for knowledge gathering ("epistemic function") and as catalysts for change ("emancipatory" function).

In addition to the narrative mode of processing, there is in fact a *paradigmatic* response that the self can make to the narratives it generates. In reviewing and then reacting to the stories they create, individuals turn their self-defining memories into exemplars of lessons to be learned and turning points to be highlighted. Put simply, one can ask what does my memory mean or what is the meaning of my life story? Such questions are the crux of Staudinger's life reflection and autobiographical reasoning. By making the connection of a narrative to an abstracted or ascribed meaning, individuals activate a positive feedback loop that promotes additional cognitive, motivational, and affective value of the memory offers further cognitive information beyond the experience of immediate memory recollection (i.e., how possible is goal attainment *of this type*?) and affective information (how does attainment *of this type* feel?). The combination of this knowledge may indeed motivate the individual more powerfully toward goal attainment, while the reinforcing role of memory insures its repeated revival into consciousness.

To examine this property of ascribed meaning in memory narratives, we have created a memory narrative scoring system that includes the identification of ascribed meanings in memory narratives (Blagov & Singer, 2004). We call these memory narratives with ascribing meaning statements, "integrative memories." We chose the term, "integrative," because the statements in these memories express linkages to other memories, overarching themes of identity, or both. Having developed our scoring system, we sought to demonstrate that individuals with optimal levels of life adjustment would display a tendency to report more self-defining memories with integrative statements contained within the narratives. To test this hypothesis, we asked 108 college student participants to fill out the Weinberger Adjustment Inventory — Short Form (WAI-SF, Weinberger, 1997) and to record 10 self-defining memories, using the standard self-defining memory request (Singer & Moffitt, 1991-92). The WAI-SF measures effectiveness of socialemotional adjustment along two major factors: Distress and Self-Restraint. According to prior research with this scale, individuals who score in the moderate tend to display the best life adjustment outcomes versus the low and high selfrestraint individuals.

The mean number of integrative self-defining memories for individuals with low, moderate, and high WAI-Restraint was compared with a Univariate ANOVA, which yielded a significant effect (F(2, 100) = 4.03, p < 0.05). Pairwise comparisons

were consistent with the predicted pattern in the number of integrative memories for the moderate (M = 3.97) versus the low (M = 2.09, p = 0.006) and the high (M = 2.80, p = 0.083) self-restraint individuals. This finding offers valuable support for Staudinger's contentions about the connection between autobiographical reasoning and life effectiveness and wisdom.

To end this paper where we began, my goal in working with James is not simply to help him articulate his life story and to identify the most affectively evocative episodes from that story. Although the expression of his story, according to the theory we have presented, is, in and of itself, goal defining and motivating, this narrative demand for action and emotional response can be supplemented by paradigmatic insight and reasoning. As James reviews his story, he can begin to recognize the active role he plays as author. Having awoken his narrative muse, he can now ask how should this unfolding tale turn out? Through his work in therapy and increasing self-awareness, he may find the courage and inventiveness to write a different ending than he has seen before. If he takes the risk of intimacy and succeeds, both the content and the affective quality of the memories and the story that define him will inevitably change, as his life has already begun to change. The act of narrative processing, by engaging his thoughts, goals and emotion, has given him not only an opportunity to revive his past, but also offered him a tool of liberation to relinquish a story he no longer wants to tell, and to take his first steps toward a different and more satisfying self-defining story.

REFERENCES

- Adler, A. (1927). The practice and theory of individual psychology. New York: Harcourt Brace World.
- Barsalou, L. W. (1988). The content and organization of autobiographical memories. In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered: Ecological and traditional approaches to the study of memory* (pp. 193–243). Cambridge, England: Cambridge University Press.
- Blagov, P. S., & Singer, J. A. (2000, October). Relationships between identity and socialemotional maturity: Self-defining memories, self-concept clarity, and self-restraint. Paper presented at the meeting of the New England Psychological Association, Lewiston, Maine.
- Blagov, P. S., & Singer, J. A. (2004). Four dimensions of self-defining memories (Specificity, meaning, content, and affect) and their relationships to self-restraint, distress, and repressive defensiveness. *Journal of Personality*.

AU: Please provide complete pub info.\?

- Bruner, J. S. (1986). Actual minds, possible worlds. Cambridge, MA: Harvard University Press.
- Costa, P. T., & McCrae, R. R. (1985). The NEO Personality Inventory manual. Odessa, FL: Psychological Assessment Resources.
- Conway, M. A., & Holmes, A. (2004). Psychosocial stages and the accessibility of autobiographical memories across the life cycle. *Journal of Personality*.
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical provide complete complete

AU: Please provide complete pub info.\?

- Erikson, E. H. (1959). Identity and the life cycle: Selected papers. *Psychological Issues*, 1, 5–165.
- Fingerette, H. (1988). *Heavy drinking: The myth of alcoholism as a disease*. Berkeley, CA: University of California Press.
- Gergen, K., & Gergen, M. (1988). Narrative and the self as relationship. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 21, pp. 17–55). New York: Academic Press.

Gibson, J. J. (1979). The senses considered as perceptual systems. Boston: Houghton Mifflin.

- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin*, 126, 748–769.
- Hermans, H. J. M. (1996). Voicing the self: From information processing to dialogical interchange. *Psychological Bulletin*, 119, 31–50.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review*, 94, 319–340.
- Higgins, E. T. (1989). Continuities and discontinuities in self-regulatory and self-evaluating process: A developmental theory relating self and affect. *Journal of Personality*, 57, 407–444.
- Josephson, B., Singer, J. A, & Salovey, P. (1996). Mood regulation and memory: Repairing sad moods with happy memories. *Cognition and Emotion*, *10*, 437–444.
- Little, B. R. (1999). Personality and motivation: Personal action and the conative evolution. In L. Pervin & O. John (Eds.), *Handbook of personality: Theory and research* (2nd Ed., pp. 501–524). New York: Guilford Press.
- Magnusson, D. (1999). Holistic interactionism: A perspective for research on personality development. In L. Pervin and O. John (Eds.), *Handbook of personality: Theory* and research (2nd Ed., pp. 219–247). New York: Guilford Press.
- McAdams, D. P. (1985). Power, intimacy and the life story: Personological inquiries into identity. New York: Guilford Press.
- McAdams, D. P. (1987). A life-story model of identity. In R. Hogan & W. H. Jones (Eds.), *Perspectives in personality* (Vol. 2, pp. 15–50). Greenwich, CT: JAI Press.
- McAdams, D. P. (1990). Unity and purpose in human lives: The emergence of identity as the life story. In A. I. Rabin, R. A. Zucker, R. A. Emmons, & S. Frank (Eds.), *Studying persons and lives* (pp. 148–200). New York: Springer.
- McAdams, D. P. (1993). The stories we live by: Personal myths and the making of the self. New York: William Morrow.
- McAdams, D. P. (1995). What do we know when we know a person? *Journal of Personality*, 63, 365–396.
- McAdams, D. P. (1996). Personality, modernity and the storied self: A contemporary framework for studying persons. *Psychological Inquiry*, 7, 295–321.
- McAdams, D. P. (1999). Personal narratives and the life story. In L. Pervin and O. John (Eds.), *Handbook of personality: Theory and research* (2nd Ed., pp. 478–00). New York: Guilford Press.

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- McAdams, D. P. (2001a). *The person: An integrated introduction to personality psychology* (3rd Ed.). Fort Worth, TX: Harcourt College.
- McAdams, D. P. (2001b). The psychology of life stories. *Review of General Psychology*, 5, 100–122.
- McAdams, D. P., Diamond, A., de St. Aubin, E., & Mansfield, E. (1997). Stories of commitment: The psychosocial constriction of generative lives. *Journal of Personality and Social Psychology*, 72, 678–694.

- McAdams, D. P., Reynolds, J., Lewis, M. L., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative, and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, 27, 474–485.
- McLean, K. C., & Thorne, A. (2001). Manual for coding meaning-making in self-defining memories. Unpublished manuscript, University of California, Santa Cruz.
- Mischel, W., & Shoda, Y. (1999). Integrating dispositions and processing dynamics within a unified theory of personality: The cognitive-affective personality system. In L. Pervin & O. John (Eds.), *Handbook of personality: Theory and research* (2nd Ed., pp. 197–218). New York: Guilford Press.
- Moffitt, K. H., & Singer, J. A. (1994). Continuity in the life story: Self-defining memories, affect, and approach/avoidance personal strivings. *Journal of Personality*, 62, 21–43.
- Moffitt, K. H., Singer, J. A., Nelligan, D. W., Carlson, M. A., & Vyse, S. A. (1994). Depression and memory narrative type. *Journal of Abnormal Psychology*, 103, 581–583.
- Murray, H. A. (1938). Explorations in personality. New York: Oxford University Press.
- Neisser, U. (1986). Nested structure in autobiographical memory. In D. C. Rubin (Ed.), Autobiographical memory (pp. 71–81). New York: Cambridge University Press.
- Neisser, U. (1988). What is ordinary memory the memory of? In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered* (pp. 356–373). New York: Cambridge University Press.
- Pervin, L. A. (1999). Epilogue: Constancy and change in personality theory and research. In L. Pervin and O. John (Eds.), *Handbook of personality: Theory and research* (2nd Ed., pp. 689–704). New York: Guilford Press.
- Pillemer, D. B. (1992). Remembering personal circumstances: A functional analysis. In E. Wingorad & U. Neisser (Eds.), Affect and accuracy in recall: Studies of "flashbulb" memories (pp. 234–264). New York: Cambridge University Press.
- Pillemer, D. B. (1998). *Momentous events, vivid memories*. Cambridge, MA: Harvard University Press.
- Pillemer, D. B. (2001). Momentous events and the life story. *Review of General Psychology*, 5, 123–134.
- Polkinghorne, D. (1988). Narrative knowing and the human sciences. Albany, NY: SUNY Press.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. B. Lloyd (Eds.), Cognition and categorization (pp. 29–47). Hillsdale, NJ: Erlbaum.
- Rubin, D. C., Rahhal, T. A., & Poon, L. W. (1998). Things learned in early adulthood are remembered best. *Memory & Cognition*, 26, 3–19.
- Rubin, D. C., Wetzler, S. E., & Nebes, R. D. (1986). Autobiographical memory across the lifespan. In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 202–221). New York: Cambridge University Press.
- Sarbin, T. (1986). The Narrative as root metaphor for psychology. In T. Sarbin (Ed), Narrative psychology: The storied nature of human conduct (pp. 3–21). New York: Praeger.
- Schwartz, G. E. (1990). Psychobiology of repression and health: A systems approach. In J. L. Singer (Ed.), *Repression and dissociation* (pp. 405–434). Chicago: University of Chicago Press.
- Schwartz, G. E., Weinberger, D. A., & Singer, J. A. (1981). Cardiovascular differentiation of happiness, sadness, anger, and fear following imagery and exercise. *Psychosomatic Medicine*, 43, 343–364.

- Singer, J. A. (1990). Affective responses to autobiographical memories and their relationship to long-term goals. *Journal of Personality*, 58, 535–563.
- Singer, J. A. (1995) Seeing one's self: Locating narrative memory in a framework of personality. *Journal of Personality*, 63, 429–457.
- Singer, J. A. (1997). *Message in a bottle: Stories of men and addiction*. New York: The Free Press.
- Singer, J. A. (2003). A love story: The use of self-defining memories in couples therapy. In R. Josselson, D. P. McAdams, & A. Lieblich (Eds.), *Narrative and psychotherapy*. Washington, D.C.: American Psychological Association.
- Singer, J. A., Albert, D., Lally, R., Lizotte, M., Molina, C., & Scerzenie, S. (2000). Gender and self-disclosure in self-defining memories. Agentic and communal themes. Unpublished manuscript, Department of Psychology, Connecticut College, New London, CT.
- Singer, J. A., & Blagov, P. S. (2000, June). Classification system and scoring manual for self-defining autobiographical memories. Paper presented at the meeting of the Society for Applied Research on Memory and Cognition, Miami Beach, FL.
- Singer, J. A., & Blagov, P. S. (2003). Self-defining memories, narrative identity, and psychotherapy: A conceptual model, empirical investigation, and case report. In L. E. Angus & J. McLeod (Eds.), *Handbook of narrative and psychotherapy: Practice, theory and research*. Thousand Oaks, CA: Sage.
- Singer, J. A., & Bluck, S. (2001). New perspectives on autobiographical memory: The integration of narrative processing and autobiographical reasoning. *Review of Gen*eral Psychology, 5, 91–99.
- Singer, J. A., & Moffitt, K. M. (1991–1992). An experimental investigation of generality and specificity in memory narratives. *Imagination, Cognition, and Personality*, 10, 235–258.
- Singer, J. A., Sadler, I., & Musicant, J. (1995, July) Personal and cultural implications of memories of racial/ethnic awareness and prejudice. Presented at the Annual Meeting of the Society for Applied Research in Memory and Cognition, Vancouver, British Columbia, Canada.
- Singer, J. A., & Salovey, P. (1993). *The remembered self: Emotion and memory in personality*. New York: The Free Press.
- Singer, J. A., & Salovey, P. (1996). Motivated memory: Self-defining memories, goals, and affect regulation. In L. Martin, & A. Tesser (Eds.), *Striving and feeling*. New York: Erlbaum.
- Singer, J. A., & Singer, J. L. (1992). Transference in psychotherapy and daily life: Implications of current memory and social cognition research. In J. W. Barron, M. N. Eagle, & D. L. Wolitzky (Eds.) *Interface of Psychoanalysis and psychology* (pp. 516–538). Washington, D.C.: American Psychological Association.
- Singer, J. A., & Singer, J. L. (1994). Social cognitive and narrative perspectives on transference. In J. M. Masling & R. R. Bornstein, (Eds.), *Empirical perspectives on object relations* (pp. 157–194). Washington, D.C.: American Psychological Association
- Staudinger, U. M. (2001). Life reflection: A social-cognitive analysis of life review. Review of General Psychology, 5, 148–160.
- Thorne, A. (2000). Personal memory telling and personality development. *Personalityand* Social Psychology Review, 4, 45–56.
 Thorne, A., McLean, K. C., & Lawrence, A. M. (2004). When remembering is not enough:

Reflecting on self-defining memories in late adolescence. Journal of Personality.

AU: Please provide complete pub info.\?

- Tomkins, S. S. (1979). Script theory: Differential magnification of affects. In H. E. Howe and R. A. Dienstbier (Eds.), *Nebraska symposium on motivation* (Vol. 26, pp. 201–236). Lincoln: University of Nebraska Press.
- von Bertalanffy, L. (1968). General systems theory. New York: Braziller.
- Weinberger, D. A. (1997). Distress and self-restraint as measures of adjustment across the life span: Confirmatory factor analyses in clinical and non-clinical samples. *Psychological Assessment*, 9, 132–135.
- Williams, J. M. G. (1996). Depression and the specificity of autobiographical memory. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 244–267). Cambridge, England: Cambridge University Press.
- Williams, J. M. G., & Broadbent, K. (1986). Autobiographical memory in suicide attempters. Journal of Abnormal Psychology, 95, 144–149.