

HOW DESCRIBING AUTOBIOGRAPHICAL EVENTS CAN AFFECT AUTOBIOGRAPHICAL MEMORIES

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In this article we argue that social discourse can affect the structure and content of autobiographical memory. In making this argument, we review literature documenting the impact of social factors, including culture, social roles, and social disclosure frequency, on aspects of autobiographical memory. We also describe several social norms that govern social discourse and speculate about the effect that such norms might have on autobiographical memory. In addition, we review the mental structures and processes that might serve to mediate the relation between social discourse and autobiographical memory and offer suggestions about how both social and cognitive factors might be integrated into a common model accounting for autobiographical memory.

Although autobiographical memory research had always captured the interest of a few researchers (e.g., Cason, 1932; Colegrove, 1983/1899; Waldfogel, 1948), the pace of research into this topic accelerated in the late 1970s and early 1980s. Researchers who had a background in cognitive or experimental psychology published many of the important studies during this time (Linton, 1986; Neisser, 1978; Thompson, 1982; Wagenaar, 1986). Consequently, the variables of interest (e.g., delay, rehearsal) that were explored in these studies often focused on variables that are typically important to cognitive psychologists. The influence of cognitive psychology continues to manifest itself in much of the contem-

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porary theory and research that explores autobiographical memory (e.g., Conway & Pleydell-Pearce, 2000).

However, even within cognitive psychology there has been a consistent, albeit low-level, interest in how variables that tend to be of primary interest to social psychologists affect autobiographical memory. For example, Bartlett's classic research into memory distortion (1932; for a recent update, see Bergman & Roediger, 1999) grew out of his earlier interest (1923) in social determinants of remembering and forgetting. Similarly, Loftus's well-known research on the misinformation effect (e.g., Loftus, 1975; Loftus & Loftus, 1980) explored how socially transmitted information conveyed after an event has occurred can cause distortion in the event memory. Despite its cognitive psychology origins, Betz, Skowronski, and Ostrom (1996) argued that such research can easily be viewed through the lens of social psychology. Adopting such a perspective suggests that classic social psychology persuasion variables such as the credibility of the speaker, the plausibility of the information, and the extent to which the post-event information is consensually shared can work to consolidate or distort event memories (also see Hoffman, Granhag, Kwong See, & Loftus, 2001; Roediger, Meade, & Bergman, 2001). For example, recent research shows that although people can be persuaded to falsely "recall" fictitious autobiographical events, the plausibility of the event influences the probability that the event will be falsely recalled (Mazzoni, Loftus, & Kirsch, 2001; McDermott & Roediger, 1998; Roediger, et al., 2001; Roediger & McDermott, 1995).

Moreover, social psychologists did not entirely yield the field to cognitive psychologists in their exploration of how these social variables affected autobiographical memory. Some social psychologists, such as Mike Ross, conducted influential research during this seminal period. Ross's early autobiographical memory studies were stimulated by social psychologists' interest in the attitude-behavior relationship and explored how attitudes might alter recollections of behavior (e.g., Ross, McFarland, & Fletcher, 1981). At about the same time, Greenwald (1980) published an influential article on the "totalitarian ego" in which he outlined how the self-concept consists of a number of interrelated knowledge structures that, in conjunction with various motivations, served to direct information processing in such a way as to bias the content of autobiographical recall.

The linkage between social and cognitive psychology in this area is further emphasized by the fact that the relation between social interaction and autobiographical memory has emerged as a primary theme in autobiographical memory research. For example, influenced by thinkers such as Mead (1934) and by the social-developmental movement

epitomized by Vygotsky (1962), some researchers suggest that mother-child interaction is crucial to the development of autobiographical memory (for a review, see Reese, 2002). Some researchers also suggest that the ability to describe autobiographical memories to others is a hallmark in the development of the self (Nelson & Fivush, 2000). Related research explores cross-cultural differences in the kinds of autobiographical events that are recalled (Leichtman, Wang, & Pillemer, 2003). The origins of these differences are again thought to emerge from early mother-child interactions: Mothers in different cultures are thought to encourage their children to recall different kinds of events (Wang, 2001).

Personality researchers have also explored how elements of social interactions might be related to autobiographical memory. Some research explores the narratives that people use to describe their lives to others. This research focuses on the meaning that is derived from described life events and how that meaning can be used to construct or modify the self (Barclay, 1996; McAdams, 2001; Singer & Bluck, 2001).

Researchers in health psychology and in clinical and counseling psychology have also been interested in the relation between social interactions and autobiographical memory. One of the areas of extreme controversy in psychology is the veracity of so-called "recovered memories" and the extent to which therapists can "plant" such memories (Loftus, 1993; Nadel & Jacobs, 1998). Research now suggests that although some "recovered memories" do, indeed, reflect memory for seemingly forgotten events, other "recovered memories" are fabrications planted by clinicians (or researchers; see Ceci & Loftus, 1994) during social interactions (see Conway, 1997). Other clinical and health psychology research has focused on how social interactions affect the way that people feel about their memories. For example, a number of studies have shown that while disclosure of negative events to others might have negative short-term effects, in the long term, such disclosure generally reduces the negative feelings that typically accompany the recall of such events (e.g., Neiderhoffer & Pennebaker, 2002).

One intriguing aspect of this research is that much of the early work that explored the impact of social interaction on autobiographical memory originated in areas outside of social psychology. This state of affairs is a bit puzzling given that, as Middleton and Edwards (1990) noted, the idea that memory can be, in part, a collective phenomenon has a relatively long intellectual history. For example, the French sociologist Durkheim (1895/1982) and his student Halbwachs (1951/1980) were proponents of this collectivist position. The influence of these intellectual trailblazers is reflected in Middleton and Edwards's (1990) edited volume, *Collective Remembering*. That volume presented both theorizing

about the relation between social interaction and memory and empirical data that explore this relation.

Explorations of the relationship between social interactions and autobiographical memory have recently come from several different sources within social psychology. One research theme has focused on group memory, exploring such questions as how, when, and why the collective memory of groups tends to be superior to the recall of single individuals (Hinsz, 1990) and how common knowledge and information sharing affect the memory performance of groups (Tindale & Sheffey, 2002). A second theme explores the phenomenon of transactive memory (Hollingshead, 1998, 2001; Wegner, Erber, & Raymond, 1991). This research suggests, among other things, that peoples' roles in a relationship help to determine what they remember and what they forget (e.g., a wife's role might be to remember everyone's birth date, while a husband's role might be to remember the car tune-up schedule). A third theme in the research emphasizes how public discussions might mirror mental processes that are important to remembering and forgetting. For example, research by Ruscher and Hammer (1994) suggests that some discussions with others tend to focus on information that is related to a stigma and that such discussion can promote subsequent memory for stigma-related information. These discussions are thought to mirror the mental processes that affect memory for stereotype-relevant information (Ford & Stangor, 1992; Sherman, 1996). Indeed, Pasupathi (2001) has made a broader argument, suggesting that discussions of autobiographical events serve to organize individual events and imbed those events into a personal narrative. In this view, social discourse is key factor in determining how (and if) people remember particular events.

GOALS OF THE PRESENT ARTICLE

One goal of the present article is to briefly review and summarize some of the research that has explored relations between social interaction and autobiographical memory. We believe that this review and summary is helpful in at least two ways. First, it makes the point to the non-expert that there is much more of this kind of research taking place than might previously have been believed. Second, it helps researchers who explore social influences on memory to keep track of the research going on in related disciplines. The additional research that we present in the remainder of this article will continue to work toward this goal.

One additional purpose of this article will be to focus on the extent to which a speaker's description of an event to others (or non-communication of an event) affects the speaker's later memory for that event. Specifically, we will focus on three issues. The first issue is the extent to which

people rehearse autobiographical events for social reasons relative to the extent to which those events are rehearsed for other reasons (e.g., to understand events). We will argue that event memories are frequently rehearsed when disclosing events to others and that such social rehearsals may be one of the most frequent reasons for the rehearsal of autobiographical events.

A second issue concerns the impact of those rehearsals on autobiographical memories. Some events are described to others—but not other events. Some event details get included in the descriptions—but not other details. Some details might be accurately described to others—but other details might be distorted in the retelling. Some extra-event information (such as the statement, “he looked just like Robert Redford”) might be included in some descriptions—but not in other descriptions. The second issue of interest in this article concerns these biases in the conveyance of autobiographical events and the impact of such biases. We argue that a number of factors, including social norms and conventions and self-presentational concerns, affect when one relates autobiographical events to others, what is included in those descriptions, and the manner in which those events are described. We also argue that because these social norms and self-presentational concerns alter the “when, what, and how” of autobiographical event descriptions, and because these biased descriptions function as rehearsals of events, those variables can ultimately have an impact on the conveyor’s later memory for the events related in those descriptions. These memories might be affected in several ways. For example, the temporal category into which an event falls often needs to be recoded as an individual ages: The event that happened an hour ago may be subsequently recategorized as an event that happened yesterday, then as occurring last week, then as occurring last month, and so forth. These temporal recategorizations might be facilitated by describing the event to others. Another possible outcome of social storytelling is that one’s tendency to retrieve events might be altered by the contexts of social storytelling. As one recounts the events from one’s own life, various situational cues and communication goals might become linked to the autobiographical memories that are recounted. Such cues and goals might prompt reinstatement of the events when those goals are activated or those cues are encountered at a later time. As events become linked with a greater number of cues, the probability of retrieving such memories should increase. Hence, diversity in storytelling settings and goals might also play an important role in the extent to which an individual recalls autobiographical events.

A third general issue surrounding social rehearsals is the set of cognitive processes that are involved when one conveys events to others and how these cognitive processes might affect memory for the event con-

veyed. Obviously, one might expect that events that are often rehearsed will tend to be better recalled than events that are not rehearsed. Hence, one would also expect that events that are frequently conveyed to others should be well recalled. However, it is possible that such social rehearsals might alter the content of the recalled events. For example, some retrieved events have a rich sensory content, while others do not. The accessible memory representation of autobiographical events may become more semantic in nature when events are frequently described to others. Such "impoverished" memories have been referred to as *autobiographical facts* (Brewer, 1996) or *repisodic memories* (Neisser, 1981).

After providing a brief description of autobiographical memories and of some characteristics of those memories, we shall elaborate on these themes. In one section of this article we will describe recently collected evidence suggesting that social rehearsals of autobiographical events occur quite frequently. In a second section, we review several social norms that govern self-descriptions and attempt to relate those norms to some of the characteristics of autobiographical memory. In a third section, we describe the cognitive mechanisms that may mediate the relation between the social norms affecting the communication of autobiographical events and event recall.

AUTOBIOGRAPHICAL MEMORIES AND THEIR CHARACTERISTICS

Autobiographical memory is a term that refers to memory for self-relevant events. The arguments that we make in this article are intended to apply to this entire class of memories. However, we recognize that autobiographical memories might come in different "flavors." For example, Brewer (1986, 1996) argues that there are at least two different types of autobiographical memories. These types roughly correspond to the classic distinction between episodic knowledge and semantic knowledge. For example, when recalling an individual episode or event, an individual might have access to the phenomenological details of the event: its sights, sounds, and smells. The individual might also be triggered to feel emotions prompted by the event, as well as bodily sensations experienced while the event was occurring. In Brewer's terms, an event recalled in this way would be a *recollective memory*. On the other hand, an individual might recall *autobiographical facts*. These are events in a person's life that are recalled, but without accompanying sensory or experiential details.

The retrieval of such event-specific knowledge can have many consequences. Recall of such events might allow an individual to construct self-schemata. Those schemata can provide an individual with a sense of

cohesiveness among subsequently retrieved life events, and can affect the encoding and storage of new life events. Recalling an event might serve to alter a person's mood, help the person resolve a conflict with another person, or solve a current problem. In short, the recollection of an event often causes a cascade of responses, including the subsequent access of additional memories. Thus, it can be argued that autobiographical memory represents the single most complex type of human memory (Conway, 1996).

One of the distinctive features of autobiographical memories is that they are often accompanied by a general sense of when the event occurred. This general sense of an event's location in time emerges in estimates of an event's date (Betz & Skowronski, 1997; Brewer, 1988; Skowronski & Thompson, 1990), estimates of an event's age (Huttenlocher, Hedges, & Prohaska, 1992), or in judgments of the order in which two events occurred (Skowronski, Walker, & Betz, 2003). However, Thompson, Skowronski, Larsen, and Betz (1996) noted that people often remember the "core details" of an event memory, such as what happened and where the event took place, but misremember "peripheral details," such as exactly when the event occurred. Obviously, if the time that an event occurred is not exactly recalled, people might instead use estimation processes to judge that time. Predictably, then, a person's sense of an event's age is certainly not infallible—errors in temporal judgments are typical. Moreover, these errors are nonrandom: There is often a considerable amount of reconstruction that accompanies the determination of the time at which an event occurred (Thompson, Skowronski, & Betz, 1993) and such reconstruction can lead to systematic biases in the placement of an event in time (Ross & Wilson, 2002). Nonetheless, most people do have a reasonable sense of time in their memories—indeed, the loss of this sense of time and order is often the sign of serious psychopathology (Shimamura, Janowsky, & Squire, 1990).

One of the other distinctive features of autobiographical memories is that they are constructions that integrate information from different levels of specificity (Brown & Schopflocher, 1998). For example, Conway has suggested that autobiographical memories can incorporate three types of information: Lifetime periods, general event knowledge, and event-specific knowledge (e.g., Anderson & Conway, 1993; Conway, 1996; Conway & Bekerian, 1987). The lifetime period, such as "when I was in graduate school," represents general knowledge of a period in a person's life. General event knowledge, such as "visits to the zoo," represents generalized knowledge that can be derived from repeated events. Event-specific knowledge contains the details of a specific event memory, such as "seeing the new owl exhibit at the zoo's grand open-

ing." Information from these different levels is often integrated into a coherent recollection. The lifetime period themes and general event knowledge can serve as the contextual background for the event-specific knowledge, allowing a specific memory to be placed into proper perspective. Conway (1996) argued that this pattern of information integration across levels of specificity may be the defining characteristic of autobiographical memories.

The finding that most autobiographical memories are multiply structured should not overlook one important finding: Most life events are probably not incorporated into autobiographical memory. Brewer (1988) gave participants a beeper and asked them to record autobiographical events that were occurring when they were randomly paged. This procedure obviously produced many records of relatively mundane life events, and people had poor recall of such events. Similar findings come from research indicating that neutral events are remembered more poorly than affectively toned events (Betz & Skowronski, 1997; Skowronski, Betz, Thompson, & Shannon, 1991; Walker, Vogl, & Thompson, 1997). The general finding that most neutral or insignificant events are not well remembered should surprise no one. However, the finding does suggest that the primary function of autobiographical memory is not to retain accurate representations of all life events. Instead, the primary function of autobiographical memory may be to produce a record of important events, such as events that have personal relevance to one's goals (Conway & Pleydell-Pearce, 2000).

EVENTS ARE OFTEN REHEARSED IN CONVERSATIONS WITH OTHERS

Casual observation suggests that event descriptions might be important to event memory simply because those descriptions are frequently communicated. Job applicants try to impress potential employers by recounting their positive, job-related behaviors (a job applicant might relate the story of how her master's thesis was her first independent project and it was published in *JPSP*). Spouses often share the events of the day with each other over the dinner table (a faculty member might convey to her spouse the confrontation that she had with a student). On dates, people try to "connect" with each other by relating stories about themselves (a suitor might describe events from his past that are thought to be informative about the suitor's personality). When interacting with people who are in emotional difficulty, one may try to express empathy by relating a past event that has similar implications. People share events that provoke laughter (a friend recounts his tale of falling into the pond at a golf outing), tears (a family member recounts vacation events

with a sibling who died prematurely), and joy (a colleague recounts the story of getting a paper accepted without a single revision).

Data examining the content of conversations confirms the observation that people often relate autobiographical event descriptions to each other in the course of those conversations (e.g., Hirst & Manier, 1996; Hirst, Manier, & Apetroaia, 1997; Dritschel, 1991). Until recently, researchers had not documented the extent to which people engaged in communication-based event rehearsals relative to non-social forms of event rehearsal (but see Bluck, Alea, Habermas, & Rubin, *in press*). Such data is seemingly important to the issue of the potential impact of social rehearsals on communication. That is, if people think about events far more often than they talk about them, then the possible impact of social communications on event memory might not be worth pursuing. However, if rehearsal via social communication occurs frequently enough, then consideration of the effects of social rehearsals on autobiographical memory might have a substantial payoff.

Recently collected data suggest that social rehearsals occur at least as often as, and perhaps more often than, other rehearsal types (Walker, Skowronski, Gibbons, & Vogl, 2004). For example, in each of two studies participants were asked to list either four or six autobiographical events that occurred within the last 6 months. After listing the events, participants were asked to estimate the number of times that they had rehearsed each event for one of several different reasons (e.g., to remember the details of the events, to re-experience the emotions associated with the events, to better understand the events, to talk about the events to others, or the events were thought of involuntarily). In both studies, the most frequent reason that people rehearsed events was for the purpose of talking to others (see Table 1), and its reported frequency was significantly greater than any other reason.

We admit that there is reason to treat these data with a bit of skepticism. For example, because of the open-ended response format, a few rehearsal estimates were quite high (e.g., over 1,000), requiring that data transformations be used prior to inferential analyses (a log transformation was used in Study 1 and a truncation of extreme frequencies to the value of 100 was used in Study 2). However, despite these manipulations, it is informative that similar orderings of means emerge in both data sets. Moreover, in a third study this ordering emerged when participants were asked to report their rehearsal frequencies on bounded rating scales, eliminating the extreme value problem. The similarities in our data across studies and across different data collection and treatment techniques suggest that there is considerable consistency in peoples' retrospective perceptions of their event rehearsals: People perceive

TABLE 1. Rehearsal Estimates by Rehearsal Type for Events Occurring within the Past Six Months

Rehearsal Type	Study 1	Study 2
Storytelling	4.68 ^a	8.70 ^a
Remember Event Details	1.82 ^b	5.59 ^{b,c}
Re-Experience Event's Emotion	1.95 ^b	5.90 ^b
Better Understand the Event	.38 ^c	3.92 ^{b,c}
Rehearsal Was Involuntary	1.69 ^b	5.68 ^c
Don't Know Why Rehearsed	—	2.05 ^d
Other	—	.67 ^d

Note. Within each study, means that share a superscript are not significantly different.

that social rehearsals of memories occur often, perhaps more often than any other single rehearsal type.

CONVERSATIONAL NORMS THAT MAY AFFECT AUTOBIOGRAPHICAL MEMORY

We next turn to an examination of the social rehearsals themselves and to the conditions that can alter the communication of autobiographical events. A number of questions immediately present themselves. Why are people selective in the events that they convey to others? Why are some events described frequently while other events are described infrequently or not at all? Why do people convey some event details and not others? Why are some event details distorted in the conveyance while others are conveyed accurately? What influences the insertion of non-event information (such as metaphors) into event descriptions and what impact does inclusion of such devices have on later event memory?

These questions are partly answered by referring to social norms that govern how people communicate with each other. It has been argued that these norms are part of the social contract between the speaker and the listener, who both engage in conversation to achieve particular goals. These norms determine what kind of information is discussed, how the information is discussed, and which reactions are appropriate (e.g., Clark, 1996; Clark & Schober, 1992; Grice 1975, Higgins, 1992; McCann & Higgins, 1990; Sperber & Wilson, 1986). We will argue that the operation of these norms can have an impact on the frequency of event conveyance and the content of such conveyance. In pursuing this

idea, we explicitly build on the work of Pasupathi (2001). Pasupathi proposed that speaker qualities and listener qualities, as well as prior conversational recollections, combine to affect the content of autobiographical memory. According to Pasupathi's model, these factors create a social context that helps people select, organize, and interpret individual event memories. Figure 1 presents this principle of co-construction.

We similarly argue that social norms, via their influence on social disclosure, can affect autobiographical memory in several ways. These include alterations in the recall of a given memory, the content of the memory, the accuracy of the memory, the reconstructed temporal location of the memory, and emotions accompanying the memory. The sections that follow describe various conversational norms and discuss the potential effects these norms may have on autobiographical memories.

KEEP IT FRESH

When engaging in social discourse with others, one of the rules that a speaker needs to follow is to be informative. This often takes the form of discussing information that is thought to be unknown to the listener. For example, the question "What's new?" is typical when friends and family reunite after a period apart.

An example of the tendency to focus on new events in social discourse was noted by Pennebaker and Harber (1993). They surveyed: (1) 789 people in the San Francisco Bay area immediately after the Loma Prieta earthquake, and (2) 2,188 people in Dallas, TX immediately after the start of the Persian Gulf War. Their data suggested that these events were discussed frequently by most people for approximately two weeks after each event. After this two-week period, discussion of these events dramatically declined.

One might also assume that individuals with diverse social networks have many opportunities to discuss autobiographical memories, and that these opportunities are likely to be spread across time and space. Hence, one would expect the memories of these socially connected people to be more affected by their discourse-induced rehearsals than those with impoverished social networks, who presumably do not have the same opportunities to discuss the events in their lives with others. This tendency to focus on new events in social interactions may also work to the detriment of older events. The amount of time available for interaction may often take the form of a zero-sum game: When one discusses the new, one does not rehearse the old. This lack of rehearsal is likely one

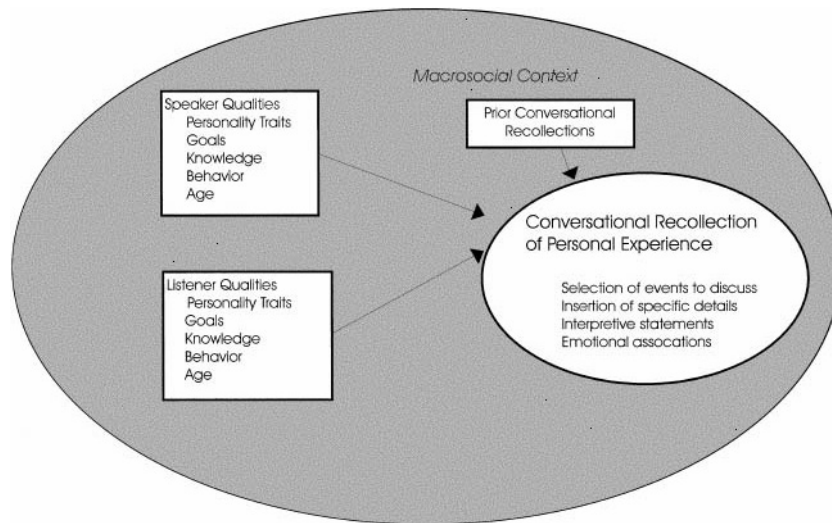


FIGURE 1. The principle of co-construction. Both listeners and speakers influence the rehearsal of events. This process is constrained by prior rehearsals (Pasupathi, 2001).

factor that is responsible for the dissipation of autobiographical memories with the passage of time.

KEEP IT RELEVANT

Social discourse often has implicit agreed-upon parameters within which speakers are required to stay. For example, in conversations speakers might "know" that each memory that is reported should be relevant to the agreed-upon topic in the social discourse. This norm requires that the speaker understands the goals of the listener and provides input that meets these goals. For example, Russell and Schober (1999) asked pairs of individuals to describe abstract shapes to each other. In some cases, the listener needed to be able to describe the shape in general terms and, in other cases, the listener needed to describe the shape in specific terms. The speaker was either aware or unaware of the listener's goals. When speakers were aware of the listener's goals, they tailored their speech to match the perceived goals of the listeners. This helped the listener obtain the necessary information about the shape. When speakers were unaware of the listener's goals, they assumed that

the listener's goals were similar to their own and tailored their communication accordingly.

One component of relevance is interest value. If a conversation is not relevant to a listener, then a speaker runs the risk of boring the listener. Hence, a speaker may attempt to present information that they think is interesting to a listener. Autobiographical events that are thought to be interesting are often those events that are extreme or novel. For example, in our autobiographical memory research we examined the relation between the emotional extremity of an event, the valence of an event, and the event's judged rehearsal frequency (Skowronski, Gibbons, Vogl, & Walker, in press). Participants were asked to report the frequency with which they rehearsed autobiographical events on a seven-point scale. Participants also rated the positive emotion provoked by the event and the negative emotion provoked by the event, also on seven-point scales. As shown in Table 2, higher levels of both positive and negative emotions in events were related to high social rehearsal frequency. Thus, people talk to others about events that they deem emotional, which presumably are thought to be interesting to audiences.

The conveyance of emotion-provoking events also has implications for the emotions that accompany event memories. In previous research, we found that the negative emotions that accompany autobiographical memories seem to fade over time at a faster rate than the positive emotions that accompany those memories. This differential fading of emotion has been termed the *fading affect bias*. More recent research (Skowronski, et al., in press) has linked this fading affect bias to the social rehearsal of event memories. That is, increased social sharing of memories is related to (and, indeed, appears to cause) a reduction in the fading of positive affect associated with positive event memories over time, but is also related to an increase in the fading of negative affect associated with negative event memories. These results suggest that talking to others may help one to retain the "rosy glow" that results from positive events, but may take the emotional "sting" out of negative events (also see Walker, Skowronski, Gibbons, Vogl, & Thompson, in press).

Might such effects also be related to a bias in the content of discourse? The data in Table 2 are not indicative of a tendency toward positivity in social rehearsals. Such a bias would be convenient in a number of ways. For example, if such a tendency existed, it might be related to the tendency for positive autobiographical events to be better recalled than negative events (Holmes, 1970; Walker et al., 1997). Instead, our data has consistently shown that positive and negative life events are perceived to be communicated with roughly equal frequency.

This result is a surprise. There are a number of reasons to expect that people would be more likely to communicate positive life events than

TABLE 2. Least-squared Means from Analyses of Rehearsal Frequency Estimates (Made on a Seven-Point Scale) by Positive and Negative Emotions Induced by Events (Unpublished Data)

		Extremity of Emotion Rating						
		1	2	3	4	5	6	7
To describe events to others	Positive	2.33	2.38	2.41	2.50	2.71	3.12	3.54
	Negative	2.26	2.39	2.54	2.64	2.77	2.93	3.45
So others can understand me better	Positive	1.68	1.74	1.77	1.90	2.07	2.36	2.67
	Negative	1.66	1.74	1.85	2.03	2.12	2.16	2.65

negative events. One of these reasons is simply event base rate. Walker, Skowronski, and Thompson (2003) recently reviewed a number of studies in autobiographical memory. These studies included: (a) diary studies in which participants recorded a variety of events over a designated recording period, (b) studies of childhood memories, and (c) retrospective reports provided in controlled laboratory conditions. All of these studies suggest that positive life events are perceived to outnumber negative life events by a ratio of 2 to 1.

Another line of argument favoring positivity in discourse is that, while social interactions can have negative consequences (see Rook, 1984), most people probably choose to engage in social discourse because they find it enjoyable (Hartup & Stevens, 1997). Hence, one might speculate that people prefer that the content of their social discourse be positive rather than negative. After all, while it is certainly the case that discussions need to be appropriate to the circumstances (students will often commune in their sorrow after an exam that they perceived to be difficult or unfair), it is also the case that people who excessively complain about their lives to others are likely to receive social sanctions and be excluded from future group conversations.

An oft-cited historical example of that preference can be found in the public's different reactions to Ronald Reagan and Jimmy Carter. Carter was perceived as a person who was all too willing to describe the country's events and circumstances in negative terms (e.g., his labeling of the country as experiencing "malaise"). In comparison, Reagan's public messages about the state of our country were relentlessly upbeat, and he peppered those messages with uplifting stories of the successes of specific individuals. Hence, while Carter might have been perceived to be a sincere, competent, and intelligent man, he was also perceived to be a bit of a boor. In contrast, Reagan, who was relentlessly ridiculed for his simplistic thinking, was nonetheless able to garner tremendous public affection. Such differential reactions, if generally applicable, would seem to work toward inducing people to focus on the positive in their social discourse.

Positivity in social discourse also might be expected from the self-presentation literature. Theorists in that literature have described a number of motivations that underlie the presentation of the self to others. While self-presentations are undertaken to manipulate observers' impressions, actors can also engage in self-presentations for the purpose of constructing and maintaining the self and for the purpose of emotion regulation (for a review see Leary, 1995). These motives for self-presentation suggest that people should more often want to depict themselves positively to others than negatively. These considerations imply that

positivity should be more frequent than negativity in the description of autobiographical events to others.

However, in several studies we have attempted to look for this positivity effect in discourse and have yet to find evidence for it. The data depicted in Table 2 are characteristic of our findings. Peoples' perceptions of the extent to which they rehearse events are related to the emotional extremity of the event but not to its valence. In considering this finding, one might argue that, when discussing autobiographical events, the need to be interesting and relevant to the discourse dominates, overriding other factors that might be expected to lead to positivity in discourse content. After all, social psychologists have often speculated that because negative events are non-normative, they are perceived to be more informative than positive events (Jones & Davis, 1965; Ybarra, Stephan, & Schaberg, 2000). Successfully consuming a cup of tea in the morning is pleasant, but is hardly a "newsworthy" event. However, spilling that tea on one's trousers might be newsworthy, either as an excuse for being late to a meeting or as an amusing story to tell to one's friends at a party. Certainly, many news organizations seem to have discovered that there is good reason to follow the maxim "if it bleeds, it leads." People who describe their autobiographical events to others might similarly come to expect that negative events are often more interesting to others than positive.

The focus on the interest value of an event might have at least one other effect on the content of social discourse. This norm might induce a speaker to alter or embellish the details of the story to make the tale more interesting to a listener. For example, a colleague of one of the authors is fond of describing a pickup softball game in which the author threw the colleague out at home as the colleague tried to score from second base on a single. As that story has been retold over the years, the throw has taken on mythic qualities, and there is no doubt that the colleague has come to believe that the throw was a prodigious one. Unfortunately, the author who made the throw remembers things quite differently. The single was sharply hit, the ball was quickly corralled in medium-center field, and the colleague was not the speediest runner on the base paths. Hence, the author's memory is that the throw, while good, was not especially difficult or noteworthy (it is also interesting to note that the author does not choose to correct the colleague's memory when he tells the story—which must say something interesting about the low moral qualities of the author). It is clear that the colleague's attempt to make the story interesting to an audience caused the colleague to exaggerate some details of the story. Across time, these exaggerations, in the absence of corrective feedback, probably become indistinguishable from the original memory trace.

Such errors seem to reflect the idea that failures in reality monitoring (Johnson, 1988) can lead to memory errors. However, because another discourse norm is honesty in communications (see "Keep it Real, below), an individual whose recollections too often deviated from the verifiable truth would probably experience social approbation. Such approbation would likely induce people to make some effort to distinguish between reality and distortion in their memories. Nonetheless, it is certainly possible that people might lose track of the distortions intentionally introduced into their stories and come to report them as "truth," especially when there is little possibility of corrective feedback from others. In fact, one wonders whether in such cases the original information is retrievable from memory, or whether it has been replaced or rendered inaccessible by the repetition of the erroneous information in social discourse. The issue of the retrievability of the original information in the face of embellishments or distortions is an issue that has been long debated with regard to the misinformation effect (e.g., Zaragoza & Koshmider, 1989).

A final point to be made about the norm of relevance in communications is that a focus on relevance in discourse might lead to possible violation of other conversational norms, such as the norm emphasizing the conveyance of new information. For example, in some interactions, the point of the conversation might be levity. In pursuit of this goal, one might recount an amusing anecdote from one's life, even though others have already heard the anecdote. This repetition is tolerated because the laughter provoked by the story is the main point of the communication, not the information conveyed by the story's content. Similarly, in trying to comfort a disheartened colleague, one might relate a well-known episode from one's past in an attempt to make a point (e.g., "Remember when I worked on that memory paradigm? It took years before I finally got that to work correctly."). These examples suggest that those autobiographical events that are thought to be particularly "useful" or "illustrative" are repeatedly used when circumstances are right, and the high frequency with which such events are repeated should substantially influence memory for those events.

KEEP IT REAL

Despite the fact that people sometimes introduce distortions into their event descriptions for purposes such as entertainment or self-presentation, conversational norms generally prescribe honesty in discourse. When this norm is active, it can affect the content of an event description. Certainly, such a norm might cause reluctance to describe events or

event details that are implausible unless they can be verified by external sources (e.g., photographs) or other witnesses. For example, some models of autobiographical memory suggest that autobiographical memories are retrieved via a process of cyclic retrieval: The memory is reconstructed online until retrieval is deemed complete (Conway, 1996). This process implies that memories will sometimes *not* be deemed complete. Thus, when honesty norms are salient, people may be reluctant to report events or event details of which they are unsure. It logically follows that the events or details that are not described will not be subject to the beneficial or biasing effects of public rehearsal.

However, as noted earlier, people sometimes violate this honesty norm and lie about events in their lives. Vogl (2001) documented such lies using a diary procedure in which people kept track of the lies they told for several weeks. This research documented instances of lying across an array of situations. Telling such lies is often an experience that is associated with nervousness (of course, that is one principle that underlies the science of lie detection). For example, White and Burgoon (2001) found that lying increased the anxiety levels of the speaker and reduced the involvement of both the listener and the speaker in the conversation.

However, the impact of that arousal on memory is unclear. On the one hand, the unpleasantness associated with the lie might serve to suppress further rehearsal of the event (either public or private). Hence, it logically follows that the events or details that are not described should not be subject to the beneficial or biasing effects of public rehearsal. Alternatively, the arousal associated with the lie (or with the lie's potential consequences) might serve as an additional motivation to make sure that one is able to keep the lie and the original event description distinct in memory. The information processing that is necessary to keep these two memories distinct might serve to enhance memory for the original event (or for certain event details).

One other complicating factor is that arousal itself has implications for information processing (Kolanczyk, 2001). For example, some research suggests that a high arousal level clouds information processing ability. If this is the case, people who lie about an event in a public contest might be more susceptible to misinformation-type effects in event memories. For example, assume that one is involved in a discussion of an event. In the course of this discussion, the other discussants might describe event details that differ from the details that an individual recalls, or provide details that the individual might not recall at all. Such publicly provided details can become incorporated into a person's event memory (Betz, et al., 1996). This effect might be even more likely to occur as a result of the arousal associated with telling an event-related lie. That is, because high

arousal might cause people to be less likely to cognitively counterargue the event detail as it is encountered (Eagly, Kulesa, Brannon, Shaw, & Hutson-Comeaux, 2000), that false detail might have a better chance of becoming incorporated into a person's reconstruction of the event. If the details obtained from others are accurate, the veracity of the later event memory reconstruction may increase as a result of the socially-transmitted information; if not, the subsequent event memory can become more distorted.

KEEP IT BRIEF

Because the social rehearsal of event memories consumes cognitive and temporal resources, it makes sense that listeners do not want superfluous detail. Note that this does not mean that listeners do not want a richly detailed narrative (after all, such details are often essential to a good story), but they do expect that the discourse will proceed in a timely manner. This norm allows the listener both to process the input without becoming bored and to respond appropriately. Speakers who violate this rule risk social approbation. For example, Pushkar et al. (2000) asked 198 older adults to engage in the simple conversational task of getting acquainted in small groups. Some of these people engaged in very lengthy self-descriptions and were generally less interested in the input of others. These individuals received significantly more negative reactions from listeners than other speakers and tended to respond to the negativity by cutting short their conversational input.

The emphasis on brevity in descriptions has implications for subsequent event memory. One's initial memory for an event might contain a great deal of information: sights, sounds, smells, emotions, etc. Because many of these kinds of cues are not central to the event, they may not be conveyed in the description of the event. This should occur because of the need to focus on the high points of the event and to ignore the peripheral details when the event is discussed. Consequently, these kinds of noncentral cues may tend to fall away from the memory with repeated event retellings. One additional implication of this process is that even though repeated discussion of an event might cause an event to be highly accessible in memory, with repeated retelling the event might tend to become increasingly semantic in nature. Such events seemingly correspond to Brewer's (1996) description of events that are *autobiographical facts*—events in a person's life that are recalled, but without accompanying sensory or experiential details. In comparison an event that is rehearsed frequently, but only during private reflections, may retain

its sensory qualities and remain, to use Brewer's term, a *recollective memory*.

KEEP IT UNDERSTANDABLE

When conveying an event, a speaker has to take the characteristics of the audience into consideration. Often, this means that an event has to be communicated in such a way that the audience can understand the event (Krauss & Fussell, 1991). One implication of this idea is that a speaker might include extra-event information in the communication, such as comparisons or metaphors, that they think might be useful to a listener. For example, in describing a recent blind date, a woman might describe the date as a person who "looks like Brad Pitt."

The inclusion of such comparisons or metaphors might influence later memory for an event. For example, as illustrated by Bartlett's (1932) work on image reproduction, attaching a verbal label to an ambiguous stimulus can distort later memory for the stimulus. We are proposing a similar process here. That is, if asked to reconstruct the appearance of the blind date after using the Brad Pitt metaphor in descriptions to others, the speaker might later experience distortion in recalling the date's image so that it more closely resembles Brad Pitt.

ALLOW FOR FEEDBACK

Evidence suggests that feedback is important in conversation and has benefits for both the speaker and the audience. Kraut, Lewis, & Swezy (1982) asked participants in a study to watch a movie and later describe the movie to either one or two listeners. When there were two listeners, one was instructed to give feedback and the other was instructed to listen passively. On a later test, the listener who provided feedback had higher levels of comprehension of the film than the passive listener. Additional data suggested that when speakers received more feedback, they were more likely to provide more details. This additional input allowed both listeners to understand the film better.

We suggest that such feedback can affect the memory of the event describer as well as the memory of description of the listener. For example, encouraging the production of greater numbers of event details obviously increases the probability that those details will be later recalled. However, encouraging description elaboration via listener feedback may also increase the probability that an event memory would be sub-

ject to any memory-distorting effects that might occur as a result of the inclusion of false details in the event description.

Moreover, the accumulated impact of such feedback over time can help to explain between-group differences in the kinds of autobiographical memories that people report. For example, Eastern cultures may discourage event descriptions that focus on the self at the expense of the group. Wang (2001) hypothesizes that mothers may convey this norm to children by the feedback that they provide in the course of mother-child interactions. Different events might be encouraged or discouraged by mothers from Western cultures and Eastern cultures, leading children to self-edit their event descriptions. Over time, these self-editing effects may ultimately come to bias autobiographical memory. For example, in Eastern cultures such editing may come to favor recall of group-relevant events relative to recall of individual events. Similar effects might be a cause of gender differences in autobiographical memory (Fivush, 1998). For example, positive feedback in interactions with others may encourage males to remember male stereotype-consistent events while discouraging memory for other events. Similar effects may bias females' event memories, which may focus on interpersonal events relative to achievement-oriented events.

One other potentially important aspect of feedback might have to do with the emotions that are experienced when events are recalled. Recent research (Walker et al., 1997; Walker et al., 2003) suggests that the extremity of affect associated with negative events fades faster than the extremity of affect associated with positive affect. Additional research (Skowronski et al., in press) shows that this effect is moderated by social discourse. When events are frequently discussed with others, the fading affect bias is particularly large. When events are not frequently discussed, the fading affect bias is small or nonexistent. Moreover, a similar effect holds for the diversity of the audience for an event description. Independent of description frequency, the fading affect bias is particularly large when the event was described to many different types of people; the bias is small or nonexistent when the event was described only to a few types of people.

Listener feedback may play a role in these effects. For example, imagine that a person describes a negative event to a friend. That friend might respond to the event description with messages of support, entreaties to avoid self-blame, and encouragement to blame the negative event on other people or on bad luck that will not be repeated. On the other hand, imagine that a person describes a positive event to a friend. That friend might reply to that event with expressions of joy, attributing that good event to the describer's personal qualities and implying that the event might be likely to occur again in the future. It is not hard to imagine how,

over time, such reactions might impact the affect associated with recalled events. That is, the soothing words of the listener might help to remove the sting of negative events, while the joy of friends might help to maintain the elation associated with positive events.

Of course, these social reactions may not be the only mechanism that contributes to the fading affect bias. Pennebaker (1997a, 1997b) has shown that merely describing negative events, even with no audience present, can help to ease the sting of negative events across time. Pennebaker speculates that the reduction in affect is a consequence of the cognitive work that one exerts as one constructs the event description. We do not dispute this mechanism. Instead, we offer the reactions of listeners as an additional mechanism that can help to explain valence differences in the extent to which the intensity of affect associated with event memories changes over time.

HAVE A POINT

Listeners expect that event memories that are described during discourse should make a contribution to the consensually accepted purpose of the interaction. One of the goals that speakers often have when disclosing event memories is to convey to a listener a general sense of the speaker's traits and beliefs. Thus, in an attempt to be maximally informative, one might recount certain "critical" incidents from one's life that one thinks are especially indicative of one's traits or goals, and use them frequently in the course of attempting to convey one's internal characteristics to others (McAdams, 2001; Singer & Bluck, 2001).

This idea that the communication of events often conveys information about the self is also reflected in the findings of Barbara Woike and her colleagues (Woike, Gershkovich, Piorkowski, & Polo, 1999; Woike, Lavezzary, & Barksy, 2001). Woike has distinguished between individuals who are agentic (motivated by self-interests) and individuals who are communal (motivated by group interests). In social discourse, agentic individuals often report memories that reflect the themes of social separation, self-mastery, and differentiation, highlighting their individuality and their experiences as individuals. In comparison, communal individuals report memories that reflect themes of friendship, love, and social connection, highlighting their connection to other people.

We speculate that these attempts to describe "the self" to others should have predictable effects on autobiographical memory. That is, with increasing repetition such events should be more likely to be recalled as autobiographical facts than as recollective memories. Further-

more, the memories of these events should also be more likely to incorporate distortions if those distortions are included in the event descriptions provided to others. Finally, the intensity of affect associated with such frequently described events should reflect the fading affect bias: Recall of frequently described negative events should provoke less negative affect, and frequently described positive events more positive affect, than the affect provoked by events that are not described to others.

COGNITION AND THE DESCRIPTION OF AUTOBIOGRAPHICAL EVENT MEMORIES

It should by now be obvious that there are many cognitive mechanisms that can help to explain how event retellings could alter one's ability to remember the event later (see Pasupathi, 2001). We have already referred to a number of different cognitive mechanisms that might play a role in the alteration of autobiographical memories as a consequence of event descriptions. At least five such mechanisms are relatively straightforward.

First, it is an axiom of memory that rehearsal influences recall. Those events that an individual chooses to convey to others should be better recalled than events that are not conveyed. In fact, recent data that we have collected suggests that social interaction might be particularly important in prompting rehearsal (Walker et al., 2003). In several studies, we have asked people to recall autobiographical events and to report how often they have rehearsed those events. Participants in these studies overwhelmingly reported that the most frequent reason for the rehearsal of autobiographical events was to describe the event to others.

These social rehearsals may prompt a second cognitive mechanism that can affect autobiographical memory. The retelling of autobiographical stories often involves elaborative rehearsal of a memory, and it is an axiom that such elaborative rehearsals are particularly good at building memory for an event. However, these elaborations also have the potential to shape or distort event memories. Consider the consequences of the inclusion of extra-event information, such as metaphors or comparisons, in event retellings. For example, in describing the car that ran him off the road, a speaker might say: "I couldn't identify the car, but it resembled a DeLorean." When later memory is tested, reconstruction of the car might be distorted to increasingly resemble the DeLorean. Finally, these elaborations can also have consequences for the affect provoked by an event memory. As noted earlier, Pennebaker (1997a, 1997b) speculates that the cognitive work that one exerts as one constructs a

description of a negative event can work to reduce the affect associated with that event.

Third, in retelling events a speaker is selective in the retelling: Some event details might be emphasized in preference to other details, some might be altered, while still others might be omitted. Such selectivity obviously has the potential to shape an individual's memory for an event. Details excluded from descriptions should be less likely to be remembered, and false event details that are inserted in such descriptions should be more likely to be erroneously "recalled" as being part of the initial event.

Fourth, the process of describing events to others might alter the nature of the memory representation or might provide a memory representation that competes with the original memory trace. For example, consider the phenomenon of verbal overshadowing (Dodson, Johnson, & Schooler, 1997). One possible consequence of describing events is that an event memory might have dual representation. One of these would be the memory for the event description; the second would be the episodic memory of the original event. At recall, memory for the description might compete with the original memory trace. Hence, while the occurrence of an oft-described event might be easily remembered, the specific perceptual details of the event might become increasingly difficult to retrieve.

Fifth, autobiographical memory might be shaped by the anticipation of future events that are included in the course of conversations about events that have not yet occurred. That is, when discussing what one is going to do tomorrow, one can establish a cognitive structure that can later be used to encode and retrieve relevant events. Memory research suggests that events that are consistent with an established organizational structure tend to be more easily encoded and retrieved in free recall tasks; events that violate the structure tend to be given more attention and elaboration, and might be better recalled in recognition tasks. Hence, by discussing events that have not yet occurred with others, one is establishing a mental structure that might be used to process information about the event when it occurs.

An understanding of how the conveyance of autobiographical events affects memory also requires attention to the organization and structure of memory. Indeed, a substantial body of evidence suggests that autobiographical memory is highly organized (e.g., Conway, 1990; Conway & Bekerian, 1987; Thompson, et al., 1996). For example, a large number of studies seem to show that time is one variable that can serve to organize recall. For example, Anderson and Conway (1993) found that people were better able to remember event memories when cued with the beginning and end points of an event than when cued with other event

characteristics. The results of other studies suggest that events that are widely separated in time are easier to order than events that are closely spaced in time, an outcome known as the temporal distance effect (e.g., Underwood, 1977). Skowronski, Walker, and Betz (2003; 2004) have recently shown that this temporal distance effect occurs even when one controls for event memory, suggesting that there is a temporal component to memory that is not entirely dependent on the details of the memory itself.

The origin of this organization, however, is a point of some debate. One currently popular model is the *Self-Memory System Model* (Conway & Pleydell-Pearce, 2000). The strength of the Self-Memory System Model is that it provides a definitive mental structure that serves to organize and structure autobiographical memory and a clear set of processes that are thought to operate on that structure. In this model, autobiographical memory is postulated to be a multiply structured knowledge base. Proponents of this model argue that autobiographical memory takes the form of partonomic hierarchical knowledge structures: Knowledge of a specific event is a part of knowledge about general events, which itself may be a part of lifetime periods or lifetime themes (see Figure 2). As a consequence, descriptions of event memories often contain all three kinds of information. An individual may provide a broad temporal context (e.g., when I was in grade school), information about a general event (e.g., I was serving as an altar boy) and specific event detail (e.g., I sneaked a slug of sacramental wine).

Conway and Pleydell-Pearce suggest that events enter the autobiographical knowledge base because of their relevance to the personal goals present at event occurrence. Hence, events that are not relevant to personal goals will not be well recalled. Moreover, rehearsal is thought to be particularly important to one's ability to access event-specific knowledge after that knowledge has been stored (Burt, Watt, Mitchell, & Conway, 1998). Even though an event might have been initially stored in the event-specific knowledge base, in the absence of rehearsal access to specific event detail is thought to become increasingly difficult.

It is important to note that this theory views autobiographical memories as generated transitory constructions rather than stable event memories. This conception of memory allows the self-memory system to be responsive to the changing goals of the self and to the situational demands of event recall. At the heart of this theory is the process of cyclic retrieval. Event details are retrieved in a cyclic pattern until the parameters of the recall task are approximated. In other words, people keep attempting to retrieve information until they judge that some criterion is reached.

Given the judgment component that is incorporated into the model, it is not surprising that executive control processes play a central role in

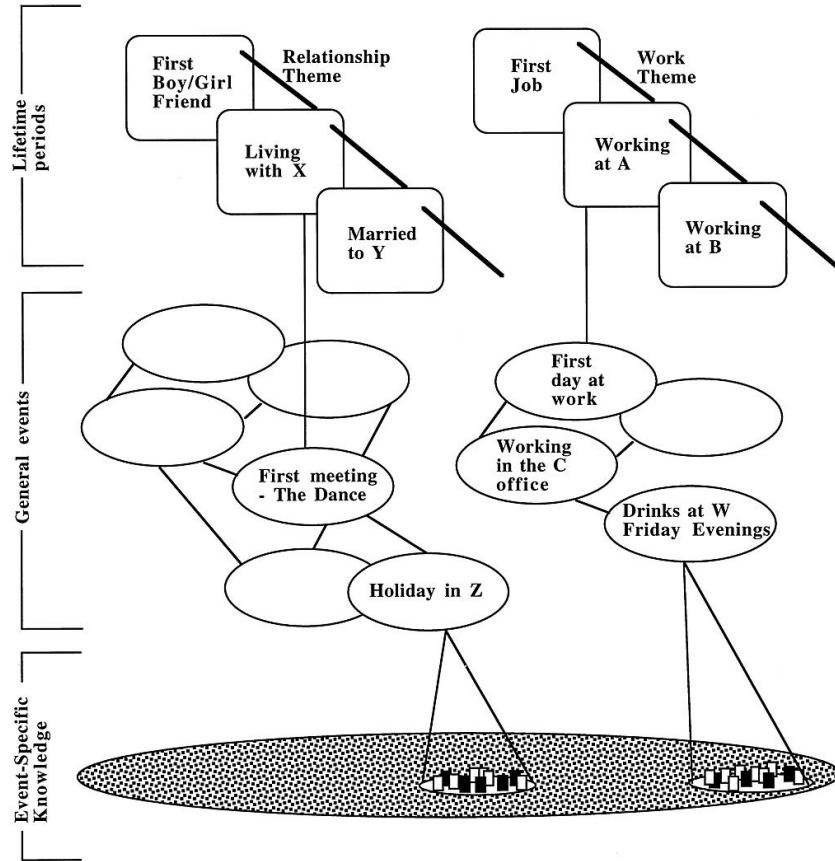


FIGURE 2. The autobiographical memory knowledge base of the Working Self Model.

Event-specific knowledge (ESK) is shown as an undifferentiated pool of knowledge, regions of which (the circles) are activated by cues held at the general event level. The small squares indicate activated ESK (Conway, 1996). Reprinted with permission.

the Working Self System Model. These processes lend structure to autobiographical memory at input and regulate access to event-specific knowledge during retrieval. These control processes are thought to be responsible for transforming the goals of the self into temporal and thematic structures in which to house the retrieved event details. These control processes also are thought to operate during retrieval by regulating how much effort is expended in accessing event-specific knowledge during the process of memory reconstruction and by regulating decisions about the amount of event-specific knowledge that is required

prior to making a decision about whether an event has been "remembered."

Conway and Pleydell-Pearce (2000) attempted to pit the Self-Memory System Model against a social interactionist view of autobiographical memory, claiming that the Working Self Model can better account for a number of memory-related phenomena. Examples that they provide are: The relation of goals to memories, distortions of memories, neuropsychological and clinical disruptions of autobiographical memory, changes in autobiographical memory in adolescence, and different types of autobiographical memory. While we agree with Conway and Pleydell-Pearce about the utility of their formulation, we are somewhat puzzled by the fact that they view the social interactionist position as incompatible with their model. We obviously see the two positions as quite compatible. There are a number of elements in the social interactionist position that can be easily and directly placed into the working self framework, with minimal modification to that framework.

The first element is obvious: Rehearsal. In the Self-Memory System Model, rehearsal is a process that is crucial to the ability to recall event details. We have similarly argued that rehearsal is important to the maintenance of a memory. However, we have also argued that there are different kinds of rehearsal, and these different rehearsal types might have different effects on memory. We think that these differing effects can be understood by reference to the different components of memory in the Self-Memory System Model and whether those components are repeatedly accessed together when reconstructing a memory. Such contemporaneous access is often the case when one recounts a story to others: The story needs to be put in proper temporal and situational life context, so if a story is repeatedly told these contextual elements will often be activated and used in the memory reconstruction. It follows that with repeated retellings these contextual elements will routinely be accessed with the memory itself. In comparison, events that are not frequently conveyed to others, but that may be privately rehearsed, may not acquire these contextual elements. Instead, the memories may retain their sensory qualities and be less likely to be seen as part of a lifetime period when the event is recalled. These considerations lead to a straightforward prediction: Events that are frequently recounted to others will be more easily placed into a lifetime period than events that are not, even equating for overall rehearsal frequency.

The social conveyance of an event's temporal context also helps to solve another conceptual problem with respect to the ability to place events in time. How does an event get temporally recoded as the event ages? That is, yesterday's event becomes last week's event, which becomes last month's event, which becomes last semester's event, which

becomes last year's event, which becomes that event that happened while I was working at Ohio State. How does such recoding occur? The Self-Memory System Model provides the structure for the temporal recoding of such events by suggesting that the self works to structure memory into meaningful lifetime periods. However, the Self-Memory System Model has no ready mechanism to provide for recoding of events into these meaningful time periods as an event (and a person) ages. One can use the details of event-specific knowledge to reconstruct the period during which an event occurred, but it would certainly be cumbersome to do that every time a memory is accessed. Social discourse provides a ready mechanism for this recoding. When telling stories one must often place events in temporal context. These conveyed temporal contexts will change with time (e.g., yesterday, last month, last year, etc.) and will hence change the lifetime period associated with an event as a story is retold.

This possibility leads to a couple of intriguing predictions. The first is that events that are frequently rehearsed will be more easily subject to within-period ordering confusion than events that are not. That is, if each of two events is frequently described to others as occurring "during college" it should be more difficult to order those events than to order two events that are equivalent in temporal distance but that have not been frequently disclosed to others. However, the situation ought to reverse for events that occur in different time periods. That is, because of the easy accessibility of life theme labels, a high school event should be more easily placed in time as coming before a college event if those two events have been frequently discussed with others than if those two events have not.

The control parameters that are built into the Self-Memory System Model also seem to be a perfect vehicle for the operation of social norms during recall. That is, the rules of discourse—keep it real, keep it brief, keep it fresh, keep it relevant, have a point—can also be thought of as social norms that might serve to partially govern the memory search and reconstruction process. Hence, when asked to remember and recount an autobiographical event, people have an internalized representation of the level of detail and accuracy that is required to fulfill the memory request and conduct their memory search until that level of detail and accuracy is reached. Moreover, the expected level of detail and accuracy can be expected to change across situations, and via the internalization of social norms the Self-Memory System Model's control processes would be sensitive to these variations. One might work harder to come up with a more detailed and a more accurate retelling of events if one is testifying at a trial than if one is responding to a stranger's request for event information. Furthermore, the decision criterion that is used to in-

clude a fact as a part of a reconstructed memory representation might change as a function of situational changes. Hence, errors in reality monitoring that might routinely be observed in laboratory contexts in which relatively little is at stake might be less likely when social pressure demands only verifiable facts.

Conway and Pleydell-Pearce's Self-Memory System Model also emphasizes the role of the self-concept in the storage and reconstruction of autobiographical event memories. However, it is an axiom in social psychology that the self is partly a social construction. Because one of the central concepts of the Self-Memory System Model is that the goal structure of the working self is critical in both the encoding and retrieval of autobiographical knowledge, it stands to reason that the social factors that contribute to the self must also play a role in regulating autobiographical memory. For example, Conway and Pleydell-Pearce cite the work of McAdams (1993) as evidence for their goal-oriented position. However, it is hard not to notice that much of McAdams's work concerns the social themes of peoples' lives, notably the themes of power and intimacy. Moreover, given that intimacy and power are often goals that people have in their social discourse, and given that Conway and Pleydell-Pearce argue that the current state of the working self may determine which autobiographical knowledge is accessed and how that knowledge can be constructed into a memory, it again seems reasonable to speculate that when these social motives are activated during the course of conversation they will work to shape the recall of autobiographical memory.

SUMMARY AND CONCLUSION

In this article we have attempted to articulate our view of the possible impact of social discourse on autobiographical memory. We reviewed literature documenting the impact of social factors, including culture, social roles, and social discourse rehearsals, on aspects of autobiographical memory. We described several social norms that govern social discourse and speculated about the effect that such norms might have on autobiographical memory. We reviewed the mental structures and processes that might serve to mediate the relation between social discourse and autobiographical memory and offered suggestions about how both social and cognitive factors might be integrated into a common model accounting for autobiographical memory.

While others have treated this same topic, we think that our approach is novel because of our attempt to provide a relatively integrated view of the phenomenon. That is, we discussed how some factors that operate at the group level (e.g., discourse norms) might regulate discourse, and

hence might impact autobiographical memory. However, at the same time we also attempted to describe some of the mental processes and structures that are activated during social discourse and how those might work to alter autobiographical memory. Our pluralistic approach to the issue offers a potential bridge between the ideas of those who focus on the operation of cognitive mechanisms in autobiographical memory (e.g., Conway & Pleydell-Pearce, 2000) and those who focus on social and cultural effects on autobiographical memory (e.g., Pasupathi, 2001).

Indeed, such a bridge might be long past due, especially in the eyes of commentators who deride research in both social psychology and in cognition for its focus on laboratory phenomena that may have little to do with the social context of behavior (e.g., Woll, 2002). Here is a real-world phenomenon—autobiographical memory—that can be rigorously analyzed and that can serve as a proving ground for seminal ideas in social psychology and cognitive psychology as well as serving as a crucible for the discovery of new phenomena (such as the reminiscence bump—see Rubin & Schulkind, 1997). We do not claim to account for all possible cognitive or social influences on autobiographical memory—future research will certainly show that variables other than those discussed in the present article will certainly have an impact on autobiographical memory. Nonetheless, we think that our attempt represents a useful step toward understanding autobiographical memory, and we hope that empirical investigation of the ideas and hypotheses embodied in this article will spur a deeper understanding of the social, personal, cognitive, and developmental mechanisms that contribute to our memories about ourselves.

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