Collective memories of three wars in United States history in younger and older adults

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Abstract A collective memory is a representation of the past that is shared by members of a group. We investigated similarities and differences in the collective memories of younger and older adults for three major wars in U.S. history (the Civil War, World War II, and the Iraq War). Both groups were alive during the recent Iraq War, but only the older subjects were alive during World War II, and both groups learned about the Civil War from historical sources. Subjects recalled the 10 most important events that occurred during each war and then evaluated the emotional valence, the relative importance, and their level of knowledge for each event. They also estimated the percentage of people that would share their memory of each event within their age group and the other age group. Although most historical events were recalled by fewer than 25 % of subjects, younger and older adults commonly recalled a core set of events for each war that conform to a narrative structure that may be fundamental to collective remembering. Younger adults showed greater consensus in the events that they recalled for all three wars, relative to older adults, but there was less consensus in both groups for the Iraq War. Whereas younger adults recalled more specific events of short duration, older adults recalled more extended and summarized events of long duration. Our study shows that collective memories can be studied empirically and can differ depending on whether the events are experienced personally or learned from historical sources.

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A collective memory is a representation of the past that is shared by members of a social group. Since Maurice Halbwachs introduced the term in the 1920s (Halbwachs, 1980, 1992), it has been adopted by psychologists (e.g., Pennebaker, Páez, & Rimé, 1997; Weldon & Bellinger, 1997), sociologists (e.g., Schudson, 1995; Schuman, Schwartz, & D'Arcy, 2005), literary analysts (e.g., Young, 1993), and historians (Bodnar, 1992; Crane, 1997; Confino, 1997; Novick, 1999). Collective memory also lies at the heart of many public discussions and national debates about current and historical events. Examples include the dispute between Estonia and Russia over how the 1939 Molotov-Ribbentrop Pact should be remembered (Wertsch, 2008a) and attempts to compare the recent U.S. military interventions in Afghanistan and Iraq with either World War II (Baker & White, 2005) or the Vietnam War (Page, 2004) in order to mobilize public support or opposition, respectively. Collective memory studies are part of a broader movement within memory studies that span the social sciences and the humanities (Roediger & Wertsch, 2008).

Given the widespread usage of the term *collective memory* across academic disciplines, it is not surprising that the research literature on this phenomenon is diverse, largely disconnected, and without a unifying theoretical framework (Hirst & Manier, 2008; Olick & Robbins, 1998; Wang, 2008). One reason for this state of affairs is that there is an implicit division of labor in the social sciences in which sociologists and anthropologists typically investigate collective phenomena, while psychologists handle questions pertaining to the minds of individuals. As a result, researchers who study collective phenomena are frustrated by the fact that psychological theories of human memory focus on the structure and function of an individual's cognitive processes

operating in isolation from other people, seldom taking social influences into account (e.g., Meacham, 1995; Bartlett [1932] represents an important exception). Likewise, researchers who focus on the memory of individuals are discouraged by the dearth of experimental research and the lack of agreement on methods for studying and measuring collective memory (e.g., Wertsch & Roediger, 2008).

The purpose of our study was to bridge this divide by applying theory and methods from cognitive psychology to collective memory research. We asked younger and older adults about their memories for three major wars in U.S. history: the Civil War (1861–1865), World War II (1939– 1945), and the Iraq War (2003–2011). The rationale for selecting these particular social groups and historical events was that it allowed us to explore three conceptual oppositions within the collective memory literature that were identified by Wertsch and Roediger (2008): (1) collective memory versus collective remembering, (2) history versus collective remembering, and (3) individual versus collective remembering. We now turn to describing each of these themes and how they inform the questions of interest in our study.

Collective memory versus collective remembering

The distinction between collective memory as a static representation and collective remembering as an active process is critical to understanding the dynamics of memories shared within and between mnemonic communities. On the one hand, collective memory can be viewed as a static body of knowledge that social groups possess; yet, this representation of the past is continually evolving through a process of repeated reconstruction. Collective remembering, however, can result in the reinterpretation of events within a group and lead to a conflict between social groups that have different recollections about a shared event.

A common approach to studying collective memory is to compare the static representations of a past event or historical period that is shared by two or more groups (e.g., Pennebaker, Páez, & Deschamps, 2006; Sahdra & Ross, 2007).¹ For example, Wertsch (2002) asked Russian and American high school students to list the most important events of World War II. The events listed most frequently by American students were (1) the attack on Pearl Harbor (December 7, 1941); (2) the Battle of Midway (June, 1942); (3) D-Day (June 6, 1944); (4) the Battle of the Bulge (Winter 1944–1945); (5) the Holocaust (throughout the war); and (6) the atomic bombing of Hiroshima and Nagasaki (August 1945). By contrast, Russian students most frequently listed the following events: (1) the German attack on the U.S.S.R. (June 22, 1941); (2) the Battle of Moscow (Winter 1941–1942); (3) the Battle of Stalingrad (Winter 1942–1943); (3) the Battle of Kursk Salient (Summer 1943); (4) the siege of Leningrad (1942–1944); and (5) the final Battle of Berlin (April–May 1945). Remarkably, there was no overlap among these lists of events despite the fact that the two counties were allies during the war.

In contrast, the process of collective remembering can be difficult to study because it often unfolds over long periods of time. One way to study collective remembering is to examine the static representation of an event by a group at different points in time and analyze the changes (e.g., Blight, 2001; Schuman et al., 2005; Schwartz, 1991; Wertsch, 2001). For example, Schwartz and Schuman (2005) examined how Americans' conception of U.S. President Abraham Lincoln evolved over the 20th century by comparing survey responses from 1945 and 2001. They found that the representation of Lincoln had changed from a multidimensional figure ("savior of the union," "man of the people," "self-made man," etc.) to focus on his role as "emancipator and champion of racial justice." Using historical narratives, textbooks, popular films, and other sources in which collective memories are expressed, they connected the transformation of Lincoln to major changes in society, such as the civil rights movement and the rise of multiculturalism (see also Schwartz, 1997).

We designed the present study to investigate the similarities and differences in the collective memories of younger and older adults for U.S. history; however, we were also interested in gaining insight into the process of collective remembering by examining recollections for the Civil War, World War II, and the Iraq War (which have unfolded over long periods of time). All three of these events are similar in that they were wars that took place over comparable periods of time, but they differ in terms of how recently they occurred. The Iraq War was ongoing at the time of the study (2009), and thus, collective memories for this event were presumably in flux. Although collective memories for the Civil War and World War II continue to change, they were assumed to be relatively stable by comparison, because they took place many years ago and their outcomes had been determined. By the same token, changes in our conceptions of historical events over the last half century may also be revealed by examining the recollections of younger and older adults who primarily learned about the Civil War and World War II from different sources at different times. Thus, our logic was that comparing the characteristics of collective memories in younger and older adults across these wars might provide insight into the process of collective remembering, although our study is admittedly exploratory.

¹ Although studies of collective memory typically focus on the remembering of public or national historical events, collective memory/collective remembering can also encompass small groups, such as couples' or families' recollections of, say, a first date, the birth of a child, or a trip (e.g., Halbwachs, 1980).

History versus collective remembering

The process of collective remembering can also be contrasted with formal approaches to understanding and recording history. History is considered an objective representation of the past that is revealed through systematic analysis of facts. The historian accepts complexity and ambiguity, and history changes when new evidence is discovered (e.g., primary source documents). Collective remembering differs from history in that it is a process motivated by social identity formation whereby mnemonic communities reconstruct the past in the service of the present and often ignore contradictory evidence. Wertsch and Roediger (2008) summed up this distinction when they wrote: "history is willing to change a narrative in order to be loyal to facts, whereas collective remembering is willing to change information (even facts) in order to be loyal to a narrative" (p. 324).²

The recollections of World War II by Russian and American high school students discussed in the previous section help to illustrate the difference between history and collective remembering (Wertsch, 2002). Examining the collective memories of these two groups revealed striking differences in the events recalled as well as the basic structure of their narratives about the war. However, these differences do not imply that students in either of the two groups lacked historical knowledge of the events listed by other group (Wertsch, 2008b). Rather, each group likely considered the events that they listed to be much more important to their narrative of the war than the events listed by the other group. For example, Russians refer to D-Day as the "opening of the second front" in June of 1944 because in their eyes the Eastern front was the first and primary front.

Wertsch (2002) also observed patterns in the basic narrative structure of students' recollections that reflect the use of what he termed a "schematic narrative template" to recount historical episodes. Similar to Bartlett's (1932) conception of schemata, schematic narrative templates are knowledge representations that are readily accessible in the minds of individuals and guide the reconstructive process of remembering. The core features of schematic narrative templates are that they are: a) schematic in the sense that they involve generalized knowledge structures; b) organized around the dimensions of temporality and plot; c) template-like because their schematic structure can underlie multiple specific narratives, each of which includes information about a particular dates, actions, and characters; and d) characterized by cognitive narcissism stemming from the tendency to understand the past as our past (J. Wertsch, personal communication, July 3, 2013).

On the basis of accounts of events in Russian history (e.g., Napoleon's invasion in the early 1800s and the German invasion during World War II), Wertsch (2002) proposed a schematic narrative template for Russians entitled the "expulsion of foreign enemies" narrative. The basic elements of this schematic narrative template are the following: (1) Russia is peaceful and not interfering with others; (2) Russia is viciously and wantonly attacked without provocation; (3) Russia almost loses everything in total defeat; and (4) through heroism and exceptional bravery, and against all odds, Russia triumphs. Similar types of schematic narrative templates have been proposed to account for cross-cultural differences in response to openended surveys of world history (Liu et al., 2005).

Of course, it is also possible for two groups to share a common set of events in their respective collective memories but interpret these events differently due to the process of collective remembering (e.g., Schuman & Corning, 2000). Consider a recent analysis by Wertsch and Karumidze (2009) of the different accounts offered by Russians and Georgians about the brief war between the two nations that took place in South Ossetia during August of 2008. The two groups used different schematic narrative templates to frame the same events. The Russians invoked the aforementioned "expulsion of foreign enemies" narrative by comparing the events of the war with the German attack on the Soviet Union in 1941. In contrast, Georgians utilized their national "struggle for independence and democracy" narrative by recalling the Battle of Didgori in 1121 in which King David the Builder defeated an invading Muslim army despite being vastly outnumbered. As this example illustrates, individuals in two social groups can agree on the same set of core events but reach different historical interpretations because of the schematic narrative templates that they apply during the process of collective remembering.

Inspired by the foregoing ideas, we were interested in whether a common set of events would be recalled within and across the two age groups for each war and whether these sets of events would conform to a structure that suggested an underlying schematic narrative template. One narrative template for Americans about wars might be conceived along the following lines: (1) The U.S. is peaceful but watches as foreign powers become embroiled in a catastrophic war; (2) after remaining relatively neutral for some time, the U.S. is finally drawn into the war; (3) U.S. forces play a critical role in winning the war for its allies; and (4) the U.S. forges a longlasting peace, gives root to freedom and democracy, and helps the defeated nations recover. Other examples of narrative templates that have been proposed for American history are the "mystique of Manifest Destiny" (Lowenthal, 1994, p. 53) and the "quest for freedom" narrative (Wertsch & O'Connor, 1994). Since a list of events alone does not reveal much about a person's knowledge, understanding, and attitudes, we asked the younger and older adults to rate the emotional valence

² There are, of course, other ways of understanding the complex interplay between history and memory, and some have even argued that history should be conceptualized as a form of remembering, or "mnemohistory," which is "concerned not with the past as such, but only with the past as it is remembered" (Assmann, 1997, p. 9; see also Burke, 1997; Nora, 1992).

(positive vs. negative), importance, and their level of detailed knowledge of each event that they recalled. By examining how the two groups evaluated these characteristics of shared events, we hoped to gain further insight into the differences in their respective collective memories for each war.

Individual versus collective remembering

The third and final opposition proposed by Wertsch and Roediger (2008) helps to differentiate between conceptions of remembering as an activity that occurs among isolated individuals (as often studied in psychology) and remembering as an activity that involves individuals who are socially situated. That is, even though collective memories are stored in the minds of individuals, these individuals are members of social groups that share a common set of cultural tools (e.g., narrative forms) and similar knowledge. The dynamic interplay between individual and collective remembering produces heterogeneity within a mnemonic community as individuals interweave their idiosyncratic memories with the shared memories of the group.

The phenomenon of flashbulb memories illustrates the dynamic interplay between individual and collective remembering (see Conway, 1995). When individuals learn a piece of surprising and consequential news, they often form a long-lasting memory for the context in which they received that news. This phenomenon often occurs in response to public events, such as the assassination of U.S. President John F. Kennedy (R. Brown & Kulik, 1977) and the terrorist attacks of September 11th (Hirst et al., 2009). The term *flashbulb memory* refers to the fact that these memories tend to be vivid and highly detailed, which often leads people to believe that they are accurate. However, many studies have shown that flashbulb memories can be erroneous despite the great confidence with which they are held (e.g., Neisser & Harsch, 1992; Talarico & Rubin, 2003).

Although multiple mechanisms contribute to the formation of flashbulb memories (e.g., emotional arousal, distinctiveness, self-relevance), one reason that these memories are so enduring (but can also change over time) is that they are subject to the process of collective remembering. When an event has profound consequences for a social group (e.g., a family, a religion, a nation), individuals within the group engage in a process of collective remembering that involves sharing their memories (e.g., How did you hear the news?). The more consequential the event to the members of a particular mnemonic community, the more likely they will be to repeatedly recollect and discuss it over time (Pennebaker & Banasik, 1997). As result, the events that produce flashbulb memories differ among various social groups (e.g., Berntsen & Thomsen, 2005; Conway et al., 1994). For instance, R. Brown and Kulik (1977) found a greater tendency for AfricanAmerican subjects to report flashbulb memories for the assassinations of prominent historical figures in the civil rights movement (e.g., Medger Evers, Malcolm X, Martin Luther King Jr., and George Wallace), relative to Caucasian subjects. Interestingly, the connection between individual and collective remembering has implications for autobiographical memory as well; people use public events and historical periods to date events in their lives (the living-in-history effect; N. R. Brown et al., 2009).

Flashbulb memories, the living-in-history effect, and related phenomena suggest that the collective memories of social groups might differ as a function of whether individuals lived through an event (i.e., directly or indirectly experienced it) or learned about it through historical sources. The personal experience of living through a major historical episode can enhance an individual's memories for the core events that are shared by their social group, creating cohort effects across generations (Schuman, Belli, & Bischoping, 1997; Schuman & Rodgers, 2004); however, it might also produce idiosyncratic recollections that are important only to the individual. For example, if a woman's brother died in the Battle of Aachen in 1944, she may remember this battle as an important event of World War II, whereas most others would not. In contrast, memories for events that pre-date an individual's life are more likely to have been created through cultural institutions that are shared by the social group, such as schools, media outlets such as films or TV shows, books, and museums. These institutions strive to promote consistent, coherent representations of the past that conform to established narratives (e.g., Roediger, Zaromb, & Butler, 2009; Wertsch, 2002). If these conjectures are true, we would expect to observe greater variability (less consensus) in the events recalled for wars that subjects in our study had lived through (e.g., World War II for older adults and the Iraq War for both groups), relative to wars that they learned about through formal education and other historical sources (e.g., the Civil War via museums, texts, films, etc.).

The distinction between individual and collective remembering also raises the question of whether individuals are aware that they share a collective memory with members of their social group and/or other groups. On the one hand, the enormous influence that collective memory has on culture and politics provides ample evidence that people are aware that they share representations of the past with others in their social group. For example, politicians would not invoke historical events if they did not expect the public to share their knowledge of and memories for those events. That said, a large body of research suggests that people tend to overestimate how much other people agree with them, leading to the false perception of consensus (the false consensus effect; Ross, Greene, & House, 1977). Indeed, parents, educators, and public officials frequently express shock and alarm concerning how little American students know about U.S.

history. For instance, according to the "The Nation's Report Card," which periodically evaluates American students' knowledge of a wide range of subjects using the National Assessment of Educational Progress, only 20 % of 4thgraders, 17 % of 8th-graders, and 12 % of 12th-graders performed at or above the "proficient level" on the 2010 U.S. history assessment (Stanglin, 2011).

Thus, people may be biased in their perceptions or expectations of what other people in their social group recollect; they may recall idiosyncratic events that other people do not recall and expect other people to remember those same events. With respect to other groups, individuals in a social group may recall the same events as members of another group without expecting others to share their recollections, indicating that they are unaware that members of other groups share similar recollections. We examined whether individuals are aware that they share a collective memory with others by asking both younger and older adults to estimate the percentage of people in their age group and the other age group who would share their memory for each event that they had recalled.

Age-related changes in cognition and collective memory

Given that we are comparing the recollections of older adults and younger adults, we note that some of the differences that emerge between these two groups may be due to normal socio-emotional and cognitive effects of healthy aging (Hess, 2005). Aging is associated with a substantial decline in memory abilities, such as encoding new episodic associations or retrieving recently formed episodic associations (e.g., Kahana, Howard, Zaromb, & Wingfield, 2002; Naveh-Benjamin, 2000). However, semantic memory is often preserved, and older adults commonly outperform younger adults on general knowledge tasks (Craik, 2000). Relative to younger adults, older adults also tend to rely more upon semantic gist information to guide memory retrieval (e.g., Castel, 2005; Tun, Wingfield, Rosen, & Blanchard, 1998), retrieve autobiographical memories that contain a greater number of semantic details (Levine, Svoboda, Hay, Winocur, & Moscovitch, 2002), and exhibit a bias toward positive memories (Mather & Carstensen, 2005). Older adults are also more prone to false memories in laboratory paradigms, while remembering fewer events that actually occurred (see Roediger & McDaniel, 2007).

Due to these age-related changes in cognition, we expect to observe differences in both the variability and characteristics of events recalled by older adults, as compared with younger adults. Older adults might exhibit greater variability in their recollections relative to younger adults, especially for more recently learned events (e.g., the Iraq War). We might further expect older adults to recall fewer events that contain detailed episodic information (i.e., a distinct spatiotemporal context) and a greater number of events that summarize multiple, specific episodes or that extend over longer periods of time. We might also expect older adults to retrieve a greater number of positive events from each war (e.g., U.S. victories in battle) and/or perceive events as being more positive than younger adults.

Method

Subjects

A total of 60 people participated in the study at Washington University in St. Louis in the Spring of 2009: 30 younger adults (18–23 years old; M = 20.3, SD = 1.6) and 30 older adults who had normal cognitive functioning (62–87 years old; M = 76.3, SD = 6.9). The younger adults were recruited from the undergraduate subject pool and received either course credit or payment. The older adults were community-dwelling individuals who were recruited through the older adult volunteer subject pool and received payment. Four additional younger adults and four additional older adults were excluded from the study prior to data analyses, because they were unable to recall 10 events for one or more of the three wars.

Demographic information is reported in Table 1. The younger adult group was slightly more diverse than the older adult group with respect to ethnicity and the geographical regions where they had spent the majority of their childhood. However, both groups had similar educational backgrounds in terms of the number of years of education and the type of schools attended (public vs. private). Finally, 10 older adults (33 %) reported serving in the military, and 2 of these older adults also reported fighting in World War II (they were 85 and 87 years of age). Only two younger adults (7 %) had served in the military, and they did not see combat.

Procedure

The entire experiment was self-paced and lasted from 60 to 90 min, depending on subjects' pace in recalling and rating events. In the initial recall phase, subjects were asked to recall the ten most important events that occurred during each of three major wars in U.S. history: "The Civil War (1861–1865)," "World War II (1939–1945)," and "The Iraq War (2003–present)" (the Iraq War was ongoing when the study occurred in 2009). First, they were shown a sample list of 10 events from the U.S. Revolutionary War that included many different types of events (e.g., battles, speeches, political acts, legislation) and were informed that it was not necessary to restrict their responses to any particular type of event (see the Appendix). Next, subjects were given a sheet of paper with one of the wars listed at the top and were instructed to write

| Demographic | Response | Younger Adults | Older Adults |
|------------------------|------------------|-------------------|-----------------|
| Age (years) | Range | 18–23 | 62–87 |
| | Mean | 20.3 | 76.3 |
| | SD | 1.6 | 6.9 |
| Ethnicity (%) | Caucasian | 63 | 100 |
| | African-American | 17 | 0 |
| | Asian | 20 | 0 |
| Childhood geographical | East Coast | 30 | 7 |
| region (%) | Midwest | 47 | 87 |
| | South | 16 | 0 |
| | West Coast | 7 | 3 |
| | Other | 0 | 3 |
| Education (years) | Range | 12-20 | 12–19 |
| | Mean | 15.5 | 15.4 |
| | SD | 1.9 | 2.1 |
| Primary school (%) | Public | 64 | 57 |
| | Private | 33 | 43 |
| | Both | 3 | 0 |
| Secondary school (%) | Public | 67 | 67 |
| | Private | 30 | 30 |
| | Both | 3 | 3 |

Table 1 Demographic information for younger and older adults

down the 10 most important events from that war in any order that the events came to mind (the experimenter wrote down the events recalled by the older adults). Subjects were free to revise their lists during the initial free recall stage prior to making ratings on the computer. This procedure was repeated for the other two wars. The order in which the wars were recalled was counterbalanced across subjects.³

Upon completing the initial recall phase, subjects moved to a computer to answer a series of questions about each event that they had recalled. Younger adults answered the questions by typing in their own responses, whereas the experimenter read the questions aloud and typed in the responses for the older adults. For each event recalled, subjects used an 11-point scale to rate the valence of the event (0 = extremely negative, 10 = extremely positive), the importance of the event in the context of the war (0 = not important, 10 = extremely important), and the level of detail in their knowledge of the event (0 = not detailed, 10 = extremely detailed). Subjects also made predictions about the percentage of people in their age group and the other age group who would share their memory for each event. Specifically, subjects were asked the following: (1) What

percentage (0 %–100 %) of people *under 30 years of age* would remember this event when asked about the war? and (2) What percentage of people *over 60 years of age* would remember this event when asked about the war? A few additional questions were also included, but these data are not relevant to the focus of this research, so they are not reported. Finally, subjects completed a demographics questionnaire and then were debriefed.

Results

Both descriptive and inferential statistical analyses were conducted in order to examine the questions of interest outlined in the introduction. All results were significant at the .05 level unless stated otherwise. Partial eta-squared and Cohen's d are the measures of effect size reported for all significant effects in the ANOVA and the *t*-test analyses, respectively.

Coding

Two coders independently read through the events recalled by subjects and assigned a label to each event. Subjects used little or no variation in terminology to describe some events, such as the "Battle of Antietam" during the Civil War (e.g., "Battle of Antietam" or "Antietam") or the "attack on Pearl Harbor" during World War II (e.g., "Japanese bomb Pearl Harbor" or "Pearl Harbor attack"). However, other events were recalled using a wider variety of terms. For example, subjects referred to the Allied invasion of the beaches at Normandy as "D-Day," "Normandy," "Normandy Beach," "Normandy invasion," "U.S. troops land at Normandy," "U.S. troops invading Normandy Beach," or "fighting in Normandy and Brittany." All of these responses were commonly coded as "D-Day." Common labels were assigned for all events that two or more individuals recalled using slight variations in terminology. The coders also assigned three types of labels to mark events that would be excluded from the analyses: "nonevent" (an event that never occurred; e.g., "Battle at Watergate"), "confused event" (an event that occurred long before or after the target war and has no obvious connection; e.g., "Battle of the Marne," which occurred during World War I but was listed for World War II), and "indeterminate event" (a response that was too vague to interpret as a discrete event; e.g., "started in Europe" was recalled for World War II).

Interrater agreement was calculated as the percentage of agreement between the two coders for event label assignment, and it was very high (87 % agreement). The disagreements were resolved, and final labels were assigned. Out of a possible total of 1,800 events recalled by subjects, 1,719 events were included in the analyses (78 nonevents, confused events, and indeterminate events were excluded, and an additional 3 events were missing).

 $[\]frac{3}{3}$ The younger adult subjects were also instructed to number the events recalled according to their historical chronological order after they had recalled them. Only one older adult performed this task following the initial recall phase, and this procedure was subsequently eliminated for the remaining older adult subjects in order to keep the time for completing the experiment to less than 90 min.

Before analyzing the data, one coder categorized each of the events along two additional dimensions: duration and type of event. The approximate temporal duration of the event (*minutes, hours, days, weeks, months, years*) was obtained from reference materials. Adapting a distinction among types of autobiographical memories proposed by Barsalou (1988), events were categorized as *specific* (distinct events that occurred in a single spatiotemporal context; e.g., "attack on Fort Sumter" or "death of Hitler"), *extended* (events that occurred over multiple spatiotemporal contexts; e.g., "Abraham Lincoln was President" or "the Holocaust"), or *summarized* (repeated events that occurred over multiple spatiotemporal contexts; e.g., "Constitutional Amendments ratified" and "the Blitzkrieg campaigns").

In order to establish reliability, a second coder categorized the events on these two dimensions. Interrater agreement for event duration was high (75 % agreement); the vast majority of disagreements concerned durations of similar length (e.g., minutes vs. hours, weeks vs. months, etc.). Interrater agreement for event type was also high (72 % agreement); the vast majority of disagreements concerned summarized versus extended events. All of the disagreements for duration and type of event were resolved, and the final categories were assigned.

Most commonly recalled events

In order to assess the degree to which subjects shared collective memories within and across groups, we identified the 10 most commonly recalled events by younger and older adults for each of the three wars (see Table 2). We used the percentage of individuals within a group who recalled a given event as a measure of the centrality of that event to the group's collective memory of the war. Events that were recalled by the majority of individuals within a group (i.e., greater than 50 %) were considered to be a core part of that group's narrative for the larger war and are represented in bold type in Table 2.

Focusing first on the Civil War, there was some overlap in the collective memories of younger and older adults; 5 of the top 10 most frequently recalled events were shared between the two groups. In both groups, subjects recalled a core set of events that appear to conform to a schematic narrative template (Wertsch, 2002), albeit with a slightly different narrative in each group. The majority of the younger adults recalled the "secession of the South," "Emancipation Proclamation," "Battle of Gettysburg," and "South surrenders." The first and last events mark the beginning and end of the war. The signing of the Emancipation Proclamation marked an important step toward the abolishment of slavery, which is popularly viewed as a justification or underlying purpose for the war, and the Battle of Gettysburg represents a strategic turning point in the war that lead to the eventual defeat of the Confederate Army. In contrast, the majority of older adults recalled a somewhat different set of events corresponding to a narrative centered on the role of Abraham Lincoln: "Abraham Lincoln as U.S. President," the "Gettysburg Address," the "Battle of Gettysburg," and "Lincoln assassination." However, this sequence of events could still be interpreted as taking the same general structure as the narrative produced by the younger adults, in that it contains a beginning, underlying justification, turning point, and ending point of the war.

Younger and older adults showed similar overlap in their collective memories of World War II; the two groups shared 6 out of the top 10 most commonly recalled events. Interestingly, there was greater consensus about the core events of this war, in that the majority of individuals in both groups recalled the same 3 events: the "attack on Pearl Harbor," "D-Day," and the "atomic bombs dropped" on Hiroshima and Nagasaki. These events conform to the same general narrative structure that was evident in the collective memories of the Civil War, because they mark the beginning, turning point, and end of World War II, respectively, from the American perspective. Despite the overlap in the collective memories of these two groups, the younger adults seemed to have a broader conception of the war, relative to the older adults, who primarily focused on the U.S. involvement in the war. For example, the younger adults commonly recalled events that occurred in Europe prior to the U.S. entering the war in 1942 (e.g., "Hitler elected Chancellor" of Germany, "Germany invades Poland," and "Germany invades the U.S.S.R."), whereas older adults primarily focused on events that directly involved the U.S. (e.g., "death of President Roosevelt," "North African campaign," and "Battle of Iwo Jima").

Lastly, there was also overlap between the two groups in their collective memories for the Iraq War. Younger and older adults shared 5 out of the top 10 most commonly recalled events. However, there was much more consensus among the younger adults in terms of the core events that make up the narrative of the war. The majority of younger adults recalled the "September 11th terrorist attacks," "U.S. invasion of Iraq," and the capture and execution of Saddam Hussein. Although the Iraq War had not yet ended when the study occurred and the outcome of the conflict remained unclear, it is striking that these three events also appear to represent beginning, middle, and endpoints of a coherent narrative. In contrast, only one event was recalled by the majority of the older adults ("Saddam Hussein captured").

In sum, there was significant overlap in the most frequently recalled events of the U.S. Civil War, World War II, and the Iraq War between the different age cohorts. Moreover, while the free recall instructions asked subjects to produce lists of discrete, important events in any order that came to mind, most of the younger and older adults recalled a core set of events for each war that corresponded to a coherent narrative structure. Interestingly, these schematic elements even appeared in the recall protocols of the Iraq War, which was

| | # | Younger Adults | | Older Adults | | |
|--------------|----|----------------------------------|----|------------------------------|----|--|
| | | Event % | | Event | % | |
| Civil War | 1 | South surrenders | 90 | Lincoln assassination | 57 | |
| | 2 | Secession of the South | 73 | Battle of Gettysburg | 57 | |
| | 3 | Emancipation Proclamation | 63 | Gettysburg Address | 57 | |
| | 4 | Battle of Gettysburg | 57 | Sherman's march to the sea | 47 | |
| | 5 | Gettysburg Address | 47 | Lincoln is U.S. President | 47 | |
| | 6 | Underground Railroad | 37 | Emancipation Proclamation | 33 | |
| | 7 | Lincoln assassination | 37 | South surrenders | 30 | |
| | 8 | Abolition of slavery | 33 | Grant led the Union Army | 30 | |
| | 9 | Confederacy established | 33 | High number of casualties | 30 | |
| | 10 | Lincoln elected U.S. President | 33 | Lee led the Confederate army | 27 | |
| World War II | 1 | Attack on Pearl Harbor | 90 | Attack on Pearl Harbor | 87 | |
| | 2 | D-Day | 73 | D-Day | 77 | |
| | 3 | Atomic bombs dropped | 60 | Atomic bombs dropped | 57 | |
| | 4 | Germany invades Poland | 50 | Victory over Japan day | 33 | |
| | 5 | U.S. declares war | 47 | Battle of the Bulge | 30 | |
| | 6 | Victory in Europe day | 37 | North African campaign | 30 | |
| | 7 | Germany invades USSR | 30 | U.S. declares war | 27 | |
| | 8 | Battle of the Bulge | 30 | Concentration camps operate | 20 | |
| | 9 | Victory over Japan day | 27 | Death of President FDR | 20 | |
| | 10 | Hitler elected Chancellor | 23 | Battle of Iwo Jima | 17 | |
| Iraq War | 1 | Saddam Hussein captured | 67 | Saddam Hussein captured | 57 | |
| | 2 | U.S. invasion of Iraq | 63 | U.S. invasion of Iraq | 43 | |
| | 3 | Sept. 11th terrorist attacks | 60 | Statue of Hussein toppled | 37 | |
| | 4 | Saddam Hussein executed | 57 | Sept. 11th terrorist attacks | 33 | |
| | 5 | Iraq holds dem. elections | 50 | Saddam Hussein executed | 30 | |
| | 6 | Obama elected U.S. President | 40 | IEDs as roadside bombs | 23 | |
| | 7 | U.S. troop surge | 33 | No WMD found | 23 | |
| | 8 | Bush declares war on Iraq | 33 | Intelligence: Iraq had WMD | 20 | |
| | 9 | Fall of Baghdad | 33 | Fall of Baghdad | 20 | |
| | 10 | Bush reelected U.S. President | 27 | Bush: Mission accomplished | 17 | |

| Table 2 | The 10 most commonly | recalled events f | for the Civil War | , World War II | , and the Irac | War for each | age group, | along with the | e percentage of |
|----------|-------------------------|-------------------|-------------------|----------------|----------------|--------------|------------|----------------|-----------------|
| subjects | who recalled each event | | | | | | | | |

Note. Events that were recalled by the majority of subjects in a group appear in bold

an ongoing conflict with an uncertain outcome at the time of the study. Inspection of the average output order of the core events further revealed that subjects tended to recall beginning, turning point, and closing events in each war in their relative order in the narrative structure (see Table 3).

It should be noted, however, that the extent to which these schematic narrative elements jointly appeared in individual recall protocols varied as a function of war and age group. Whereas only 27 % of the younger and 17 % of the older adults recalled all the core events of the Civil War identified for each group, in the case of World War II, where both younger and older adults more frequently listed the same three core events (attack on Pearl Harbor, D-Day, and the dropping

of the atomic bombs), 67 % of the younger and 47 % of the older adults recalled all three events together, but not always in the same order. Lastly, whereas 37 % of the younger adults recalled all three core events identified for the Iraq War, the older adults commonly recalled only one core event for the Iraq War.

Consensus within and across groups

Although the majority of younger and older adults commonly recalled a small set of core events for each war, the level of consensus among individuals seemed to vary as a function of war and age group. In order to explore this observation, we looked at the extent to which other members of the same

Table 3 Average output order of core events recalled for the Civil War,World War II, and the Iraq War for each age group

| Event | Older Adults | Younger Adults | Mean |
|------------------------------|--------------|----------------|------|
| Civil War | | | |
| Secession of the South | 1.8 | 4.2 | 3.8 |
| Emancipation Proclamation | 3.7 | 3.6 | 3.6 |
| Battle of Gettysburg | 4.1 | 3.2 | 3.6 |
| Gettysburg Address | 5.9 | 4.1 | 5.1 |
| South surrenders | 5.1 | 5.7 | 5.6 |
| Lincoln assassination | 6.5 | 6.3 | 6.4 |
| World War II | | | |
| Attack on Pearl Harbor | 2.0 | 3.4 | 2.7 |
| D-Day | 5.9 | 3.5 | 4.7 |
| Atomic bombs dropped | 6.6 | 4.9 | 5.7 |
| Iraq War | | | |
| Sept. 11th terrorist attacks | 5.5 | 2.1 | 3.3 |
| U.S. invasion of Iraq | 2.6 | 3.8 | 3.3 |
| Saddam Hussein captured | 4.7 | 3.9 | 4.2 |
| Saddam Hussein executed | 5.0 | 5.5 | 5.3 |

Note. Events that were recalled by the majority of subjects in a group appear in **bold**

group shared a memory for any given event recalled by an individual. For each event recalled by a subject, we calculated the percentage of other group members who also recalled that same event.

As Fig. 1 shows, younger adults shared their recollections with a greater percentage of their peers than did older adults, and the degree of consensus was greater for the two older wars, relative to the Iraq War. A 3 (war) × 2 (age group) ANOVA confirmed these observations by showing main effects of age group (31 % vs. 21 %), F(1, 58) = 59.34, MSE = 63.7, $\eta_p^2 = .51$,



Fig. 1 Average percentage of other group members who recalled a given event as function of war and age group. Error bars indicate 95 % confidence intervals

and war, F(1, 58) = 35.58, MSE = 27.16, $\eta_p^2 = .37$. Follow-up pair-wise comparisons showed significantly greater consensus for events recalled for the Civil War and World War II, relative to the Iraq War (26 % vs. 19 % and 26 % vs. 19 %, respectively), t(59) = 7.76, SEM = 0.90, d = 0.81, and t(59) = 6.19, SED =1.09, d = 0.77. The two older wars did not differ in terms of consensus (t < 1). In addition, there was a significant interaction between war and age group, F(1, 58) = 6.01, MSE = 35.58, $\eta_p^2 =$.09, which may be attributed to the larger difference in consensus for the Iraq War between younger adults and older adults.

Both age groups showed a moderate level of consensus about the events that constitute their collective memory of each war, but there was also substantial heterogeneity in the events recalled within groups. Most of the events recalled were shared by less than a quarter of other subjects within the same group. Figure 2 shows the number of events recalled by each age group as a function of the percentage of other people in the group who recalled the same event (the data are collapsed across the three wars). Indeed, 72 % (349/482) of all the events recalled in the study were unique, in the sense that only 1 subject recalled them.

The same general distribution of events as in Fig. 2 was evident within each war and between both groups. Nonparametric tests confirmed that the frequency distributions of events recalled did not significantly differ from one another as a function of war [Civil War vs. World War II, $\chi^2(5, N = 375) = 4.96$, n.s.; Civil War vs. Iraq War, $\chi^2(5, N = 396) = 4.92$, n.s.; World War II vs. Iraq War, $\chi^2(5, N = 431) = 3.74$, n.s.] or age group [younger vs. older adults, $\chi^2(5, N = 491) = 6.55$, n.s.]. However, older adults recalled a significantly greater number of unique events across all the three wars than did younger adults (5.5 vs. 3.6), t(58) = 2.77, SED = 0.69, d = 0.68. Overall, despite the commonalities reported above, the distributions shown in Fig. 2 indicate a remarkable heterogeneity in the memories of younger and older adults for all three wars.



Fig. 2 Number of events recalled by each age group as a function of the percentage of other people in the same group who recalled the same event (the data are collapsed across the three wars)

Was there consensus across age groups? Many of the most frequently recalled events were recalled by the majority of subjects in both groups (e.g., "Battle of Gettysburg," "attack on Pearl Harbor," and "capture of Saddam Hussein"). However, there were some events that were recalled by many individuals in one group but relatively few in the other group (e.g., "surrender of the South" and "German invasion of Poland"). To answer this question, we assessed whether events that were recalled by at least one member of each group were recalled with similar frequency in both groups. Overall, a similar number of "shared" events were recalled for each war: Civil War = 36, World War II = 41, and Iraq War = 42. For each war, we computed a gamma correlation between the number of younger adults and the number of older adults who recalled each shared event. A positive relationship between the frequency of recall in the two groups emerged for each war: The Civil War (G = .49) showed the strongest relationship, followed by World War II (G = .40) and the Iraq War (G = .36) (all three gammas were significantly different from zero).

Overall, the events recalled by older and younger adults showed some degree of consensus both within and across groups, but these shared memories were accompanied by a host of idiosyncratic memories. Younger adults exhibited greater consensus in their recollections than did older adults, presumably due in part to the relatively larger number of unique events recalled by older adults. In addition, the degree of consensus was generally greater for wars that occurred in the distant historical past, as compared with more recent wars.

Valence, importance, and knowledge of recalled events

Listing a common set of events does not necessarily mean that younger and older adults share similar interpretations or perceptions of history; thus, we examined their ratings of the events recalled in order to explore potential differences between the two age groups. Table 4 contains the mean ratings for valence, importance, and detailed knowledge for each event as a function of war and age group.

An interesting pattern emerged across the three wars in the ratings of valence given by the two age groups. As Table 4 shows, older adults and younger adults generally made similar average ratings for events from the Civil War and Iraq War, but the ratings for the two groups differed markedly for World War II. A 3 (war) × 2 (age group) ANOVA revealed significant main effects of war, F(2, 116) = 19.88, MSE = 1.75, $\eta_p^2 = .26$, and age group, F(1, 58) = 4.30, MSE = 2.99, $\eta_p^2 = .07$, the latter of which indicated that older adults tended to rate events as slightly more positive than did younger adults (5.6 vs. 5.1). However, these main effects were qualified by a significant interaction between war and age group, F(2, 116) = 11.04, MSE = 1.75, $\eta_p^2 = .16$. Follow-up comparisons between the two groups for each war showed that the interaction was

driven by differences between older and younger adults in their ratings for World War II (6.3 vs. 4.6), t(48) = 4.47, *SED* = 0.40, d = 1.00. Neither of the differences in valence ratings for the other two wars was statistically significant (ts < 1.2).

The difference between the two age groups in their average valence ratings for World War II events may reflect the fact that the older adults lived through war, while the younger adults had learned about it only from historical sources. Consider the three most frequently recalled events that occurred during World War II: "attack on Pearl Harbor," "D-Day," and "atomic bombs dropped" on Hiroshima and Nagasaki. Both groups perceived the "attack on Pearl Harbor" as a negative event, which younger adults (M = 1.5, SD = 2.1) rated slightly more negative than did older adults (M = 3.0, SD = 4.0). In addition, both groups perceived the "D-Day" as a positive event, but again younger adults (M =6.5, SD = 3.1) rated this core event as less positive than did older adults (M = 8.9, SD = 2.2). Perhaps most interestingly, the two groups completely diverged in their ratings of "atomic bombs dropped," with younger adults (M = 3.4, SD = 3.2) perceiving this as a negative event, while older adults perceived it as positive event (M = 8.0, SD = 2.2).

The positivity bias that older adults often exhibit in remembering past episodes may help to explain these differences (Mather & Carstensen, 2005). However, the large discrepancy between younger and older adults' perceptions of "atomic bombs dropped" may be better explained by contrasting their narratives of the war, which reflect intergenerational differences in historical interpretations of the same events (Ward, 2006). The events most commonly recalled by the older adults suggest a U.S.-centric view of war in which dropping the atomic bombs could be perceived as a positive event in that it ended the war (i.e., preventing the need for a land invasion by U.S. troops that would have cost many more lives). In contrast, the younger adults appear to have taken a broader view of World War II, which included many events that did not directly involve the U.S. Their negative perception of the dropping of the atomic bombs may stem from a consideration of the catastrophic effects of this event on the Japanese people who died as a result.

Turning to subjects' ratings of the importance of the events that they recalled, the pattern across wars and age groups was relatively straightforward (see Table 4). On average, older adults (M = 8.4, SD = 2.2) gave higher ratings of importance to events than did younger adults (M = 7.6, SD = 2.4). In addition, events from World War II (M = 8.3, SD = 1.2) were rated as more important than events from the Civil War (M = 7.8, SD = 1.3)and the Iraq War (M = 7.7, SD = 1.1). A 3 (war) × 2 (age group) ANOVA revealed significant main effects of war, F(2, 116) =10.25, MSE = 0.69, $\eta_p^2 = .15$, and age group, F(1, 58) = 8.65, MSE = 2.62, $\eta_p^2 = .13$. The interaction was not significant, F < 1. We also examined whether subjects' perceptions of importance were related to the degree of consensus

| Event | Valence | | Importance | | Detailed Knowledge | |
|--------------|---------------|-------------|---------------|-------------|--------------------|-------------|
| | Younger Adult | Older Adult | Younger Adult | Older Adult | Younger Adult | Older Adult |
| Civil War | 5.9 (1.0) | 6.2 (1.7) | 8.9 (1.6) | 9.3 (2.1) | 5.2 (2.4) | 7.4 (2.1) |
| World War II | 4.6 (1.2) | 6.3 (1.8) | 8.3 (2.3) | 9.0 (2.2) | 4.2 (2.6) | 7.0 (2.2) |
| Iraq War | 4.7 (1.4) | 4.2 (1.5) | 8.9 (1.6) | 9.9 (0.4) | 5.1 (2.7) | 7.6 (1.8) |

Table 4 Mean ratings of valence (0 = extremely negative and 10 = extremely positive), importance (0-10), and level of detailed knowledge (0-10) for each event as a function of war and age group (with standard deviations in parentheses)

about an event. Subjects' ratings of importance were positively correlated with the number of individuals within the group who recalled the event for both younger adults, r = .24, p < .01, and older adults, r = .16, p < .01.

Finally, we analyzed subjects' ratings of their level of detailed knowledge about each event recalled as a function of war and age group (see Table 4). Despite having similar levels of formal education, older adults (M = 6.4, SD = 2.1) reported having more knowledge of each event than did the younger adults (M = 3.9, SD = 2.8). Across the three wars, subjects indicated that they had greater knowledge for the events that they recalled about the Iraq War (M = 5.5, SD =1.9) and World War II (M = 5.4, SD = 2.3), relative to the Civil War (M = 4.5, SD = 2.2). A 3 (war) \times 2 (age group) ANOVA showed main effects of war, F(2, 116) = 17.45, MSE = 0.97, $\eta_{\rm p}^{2}$ = .23, and age group, F(1, 58) = 42.71, MSE = 6.67, $\eta_{\rm p}^{2} =$.42. The interaction between age group and war was also significant, F(2, 116) = 3.91, MSE = 0.97, $\eta_p^2 = .06$, and appeared to be driven by a smaller difference between younger and older adults' ratings of their knowledge about events from the Civil War, relative to the other two wars.

Metacognitive awareness of collective memories

We were also interested in how accurately individuals could predict whether other members of the same group and individuals in different social groups would share their memories. In order to investigate people's metacognitive awareness of their collective memories, we asked subjects to make two estimates for each event that they recalled: (1) the percentage of their peers (either younger adults under the age of 30 or older adults over the age of 60) who would recall the same event if they participated in this study and (2) the percentage of individuals in the other age group who would recall the same event. As is shown in Fig. 3, both younger and older adults tended to estimate that a high percentage of older adults would recall the same event; however, when predicting whether younger adults would recall the same event, younger adults estimated a much higher percentage than did older adults. A 2 (age group) \times 2 (predicted group) ANOVA confirmed this observation by revealing a significant interaction, $F(1, 58) = 41.88, MSE = 86.09, \eta_p^2 = .42$; the main effects of age group, $F(1, 58) = 17.10, MSE = 328.00, \eta_p^2 = .23$, and predicted group, $F(1, 58) = 189.18, MSE = 86.09, \eta_p^2 = .77$, were also significant.

Were younger and older adults accurate in their predictions? One way of assessing metacognitive accuracy is to look at the absolute correspondence between predicted and actual performance, which is often referred to as *calibration* in the metacognition literature (see Koriat & Goldsmith, 1996). The dotted line in Fig. 3 shows the mean percentage of other people in the study, collapsed across age group, who actually recalled a given event (M = 22.3 %). Comparing predicted recall with actual recall, it is clear that both age groups grossly overestimated the extent to which other members of their group, as well as members of the other group, would share the same memories.

Another way to assess metacognitive accuracy is to look at the relative correspondence between predicted and actual performance, which is called *resolution* (Koriat & Goldsmith, 1996). In contrast to calibration, which assesses overall accuracy, resolution is a measure of how accurate individuals are on



Fig. 3 Mean predicted percentages of people over 60 years of age and under 30 years of age who would recall a given event as a function of age group. Dotted line shows the mean percentage of other people in the study, collapsed across age group, who actually recalled a given event. Error bars represent 95 % confidence intervals

an item-by-item basis. To examine resolution, we computed the gamma correlation for each subject between predicted percentage recall and actual percentage recall by others within the same group and in the other group. Interestingly, younger and older adults were reasonably good at predicting whether other individuals would recall a given event. Younger adults were equally accurate in their item-by-item predictions for individuals under the age of 30 ($M_{gamma} = .29$) and over the age of 60 ($M_{gamma} = .27$). Older adults also demonstrated similar levels of resolution for peers over the age of 60 ($M_{gamma} = .28$) and individuals under the age of 30 ($M_{gamma} = .26$). No significant differences were found among these means (all ts < 0).

In sum, both younger and older adults tended to overestimate whether others in the peer group or the other age group would share their memories. This dissociation between actual and predicted recall consensus may suggest the existence of a false consensus effect within collective remembering. Nevertheless, both age groups were successful at predicting whether or not an event was likely to be shared by others at the level of individual events, which suggests that subjects were aware that some of the events that they recalled were central to the narrative of the war, while others were idiosyncratic.

Type and duration of events recalled

To compare younger and older adults' recollections of the three wars, we examined the types and duration of events recalled by the age groups. To recap, events were classified as one of three types: specific event (a distinct event that occurred in a single spatiotemporal context), extended event (a distinct event that occurred in multiple spatiotemporal contexts), and summarized event (repeated events that occurred over multiple spatiotemporal contexts). As is shown in Fig. 4, all subjects tended to recall more specific events than extended or summarized events (5.9 vs. 1.9 and 5.9 vs. 1.7, respectively), t(59) = 9.80, SED = 0.41, d = 1.53, and t(59) =11.74, SED = 0.36, d = 1.62. However, on average, younger adults recalled more specific events than did older adults (7.1 vs. 4.7), t(58) = 6.39, SED = 0.38, d = 1.24, whereas older adults recalled more extended and summarized events (2.7 vs. 1.0 and 2.3 vs. 1.2, respectively), t(58) = 6.35, SED = 0.28, d = 1.23, and t(58) = 4.85, SED = 0.21, d = 1.12.

Classifying responses according to their temporal duration also revealed differences between younger and older adults. As is shown in Fig. 5, the distributions of events as a function of duration looked similar for older and younger adults, with subjects tending to recall events that took place over a shorter duration (e.g., minutes, hours). However, younger adults recalled significantly more events that took place over hours than did older adults (3.0 vs. 2.0), t(58) = 5.57, SED = 0.18, d = 1.20, whereas older adults recalled significantly more events that took place over years (3.3 vs. 1.2), t(58) = 6.42, SED = 0.34, d = 1.24.



Fig. 4 Mean number of events recalled per war as a function of event type and age group (data are collapsed across war). Error bars represent standard error of the mean

Overall, younger adults recalled events that were more distinct and localized within a small window of time, whereas older adults tended to recall events that were more general and unfolded over longer periods of time.

Discussion

When asked to generate lists of important events that occurred during three distinct time periods in U.S. history (the Civil War, World War II, and the Iraq War), younger and older adults reveal striking similarities and differences in the content, patterns, and perceptions of their recollections. One of the main findings was that individuals commonly recalled a core set of events for each historical time period. Moreover, these core events outline a salient narrative structure (e.g., a schematic narrative template) that may be critical to collective



Fig. 5 Mean number of events recalled per war as a function of duration of event and age group (data are collapsed across war). Error bars represent standard error of the mean

memory and remembering. That no more than four events were recalled for each war by the majority of subjects in each group suggests that collective memories for national historical events may be fairly simple and revolve around only a small number of central events.

Our findings also provide some empirical validation for and raise new questions regarding the conceptual oppositions that broadly characterize the study of collective memory across various disciplines: (1) history versus collective remembering; (2) collective memory versus collective remembering; and (3) individual versus collective remembering. We turn now to discussing each of these points.

Schematic narrative templates for remembering U.S. history

Consider subjects' recollections of the Civil War. The majority of younger adult subjects recalled the "secession of the South," "Emancipation Proclamation," "Battle of Gettysburg," and "South surrenders." While the first and last events mark the beginning and end of the war, the middle two events are popularly viewed as "game-changing" cultural and military events in the war. The Emancipation Proclamation marked an important step toward the abolishment of slavery, and the Battle of Gettysburg marked a strategic turning point in the military conflict. On the other hand, the narrative invoked by the older adults' recollections focused on the role of Abraham Lincoln throughout the war, since they most frequently recalled "Abraham Lincoln as U.S. President," the "Gettysburg Address," the "Battle of Gettysburg," and "Lincoln's assassination."

Turning to World War II, the most frequently recalled events were the "attack on Pearl Harbor," "D-Day," and "atomic bombs dropped." For Americans, these three events marked the beginning, turning point, and end of U.S. military involvement in World War II. Even in the case of the Iraq War, a conflict whose final outcomes were tenuous when we conducted this study in 2009, subjects frequently recalled a core set of events that indicate the beginning, turning point, and concluding events of a coherent narrative (or of several alternative narratives). These core events were the "September 11th terrorist attacks," "U.S. invasion of Iraq," and the capture and execution of Saddam Hussein.

Note, however, that the common recollection of the event of September 11, 2001 for the Iraq War defies historical logic and exemplifies the cultural specificity of collective remembering. One might argue that this particular event was frequently recalled, because individuals understood the Iraq War to be part of what was originally declared by President George W. Bush as the "War on Terror." According to this view, one cannot recount the story of the Iraq War without mentioning the attacks of September 11, 2001 and their influence on U.S. domestic and foreign policies. Still, the men who planned the 9/11 attacks were in Afghanistan, not Iraq, and the reason for the war in Afghanistan was to root out this group. Saddam Hussein and others in Iraq had nothing to do with the attacks on September 11.

Proceeding to the next commonly recalled event, the U.S. invasion of Iraq, it is striking that this event fits into the middle of a basic narrative structure, with the September 11th terrorist attacks and the capture and/or execution of Saddam Hussein signifying the beginning and endpoints, respectively. Had the invasion been the earliest commonly recalled event, this would have signified the beginning of a narrative in which the U.S. was the initiator of a conflict. Instead, the fact that most subjects recalled the September 11th terrorist attacks as an important event for the Iraq War suggests a common theme in Americans' recollections that wars do not begin with acts of military aggression by the U.S. Rather, the U.S. is initially the victim of an attack from foreign (or in the case of the Civil War, internal) forces, and subsequent military campaigns led by the U.S. are in just response to the initial attack. Of course, even in the case of the Civil War, the Union invaded the South after secession, rather than the Confederacy invading the North. That is why the narrative of the Civil War must begin with secession (and the attack on Fort Sumter), not Lincoln's decision to invade the South in 1861.

History versus collective remembering

This "attacked victim that strikes back and conquers" theme is also consistent with the schematic narrative template Wertsch (2002) proposed for Russians' recollections of World War II and the Napoleonic War and further highlights a fundamental opposition discussed earlier. In contrast to formal historical analysis, which, for instance, dates the beginning of World War II to events that occurred in Europe in 1938 and 1939, acts of collective remembering serve to promote social identification and group cohesion. Thus, in the perception of most Americans, World War II began when "we" were attacked and drawn into the conflict, as suggested by the fact that nearly 90 % of subjects recalled the attack on Pearl Harbor as the beginning core event of World War II, an event that occurred 2 years after the German invasion of Poland (and 3 years after the German annexation of Austria and Czechoslovakia).

In our recollections of World War II, the next most significant event was D-Day, the battle that the U.S. and its allies won through great sacrifice and which served as a turning point in the war. Some events such as the Battle of Stalingrad (1942–1943) and the Battle of Kursk (1943) are considered by historians to be just as (if not more) decisive turning point events, and yet very few subjects recalled these key military battles. No one recalled the Battle of Kursk, which was the largest tank battle in world history and one of the most important events of World War II frequently recalled by Russians (Wertsch, 2002). Finally, "we" ended the war by dropping atomic bombs on Japan, our initial enemy in the conflict. These examples demonstrate how the importance

assigned to historical events can differ as a function of the goals of remembering (e.g., objective representation of the past vs. reconstruction of the past in the service of the present).

The existence of a common, underlying template does not necessarily imply the existence of only one narrative, however. For instance, in the case of World War II, where both younger and older adults more frequently listed the same three core events (attack on Pearl Harbor, D-Day, and the dropping of the atomic bombs), 67 % of the younger and only 47 % of the older adults recalled all three events together. This variability in the extent to which younger and older adults recalled all the core events identified for each group suggests that younger adults may have used a schematic narrative template to a greater extent than did the older adults to guide their retrieval or that older adults may have used multiple schematic narrative templates.

It may be possible to construct, or reconstruct, multiple narratives using the same schematic narrative template (Wertsch, 2002). Indeed, there were striking differences between younger and older adults' subjective evaluations of the same core events. Whereas older adults perceived the dropping of the atomic bombs on Hiroshima and Nagasaki as being highly positive, younger adults rated the event as being very negative. For the generation of Americans who lived through or grew up in the aftermath of World War II, the dropping of the atomic bombs on Hiroshima and Nagasaki was largely viewed by the American public and portrayed in the U.S. media and history textbooks in positive terms as having hastened the Japanese surrender (Ward, 2006). Since the end of the Cold War and break-up of the Soviet Union in the 1990s, U.S. media and textbooks have offered multiple interpretations as to why the atomic bomb was used at the end of World War II and have tended to emphasize the negative consequences of the use and proliferation of nuclear weapons.

Collective memory versus collective remembering

These contrasting perceptions of younger and older adults may reflect intergenerational differences in historical interpretations of and personal experiences associated with the same events (see also Mannheim, 1952; Schuman & Scott, 1989; Svob & Brown, 2012). As such, they underscore the conceptual opposition discussed earlier between collective memory as a static representation of the past and collective remembering as a continually evolving process of repeated reconstruction (Wertsch & Roediger, 2008). Conflicting recollections of the dropping of the atomic bombs serve to illustrate just how dramatically representations of the past can change over time and lead different social groups (in this case, age cohorts) to hold opposite perceptions of the same historical event. Of course, it is unclear how stable these knowledge representations are without directly comparing recollections for the major wars over relatively long periods of time and in different populations.

Individual versus collective remembering

When we examined the degree of variability or consensus in the events recalled, our findings revealed similar patterns across age groups and historical time periods, further underscoring the last conceptual opposition between individual and collective remembering. One of our main findings was that the events recalled in isolation by older and younger adults showed some degree of consensus both within and across groups for each of the major wars, but these shared memories were accompanied by a host of idiosyncratic memories. Nevertheless, younger adults still exhibited greater consensus in their recollections than did older adults, and there was greater consensus in recall for events that occurred in the distant historical past, as compared with recent events.

The greatest degree of consensus was for the Civil War, followed by World War II, a historical period during which most of the older adults had lived, and the Iraq War, a period that was current and ongoing when the study was conducted. This finding is somewhat surprising, because there are many more events that subjects could have potentially listed from both the Civil War and World War II, which had many more discrete battles than the Iraq War. Since World War II was fought in many different countries around the world, one might have reasonably expected greater variability in recollections for that war.

Several factors may contribute to this pattern. The greater consensus of recollection for temporally distant periods like the Civil War may be due to the influence of select historical narratives and general knowledge promulgated in U.S. schools, media outlets, and museums (Roediger et al., 2009; Wertsch, 2002). Over time, episodes from the more distant historical past may be remembered or perceived as being more coherent and schematized than recent episodes or current events whose eventual outcome is still uncertain. It is worth noting, for instance, that the events most frequently recalled for World War II by both younger and older adults were also among the top six events most frequently listed by American high school students in the 1990s (Wertsch, 2002). Another possible explanation is that with advances in media and information technology, there is simply a greater abundance of documentation for more recent historical events that would allow for greater diversity in perceptions of what constitutes an important event. In order to help distinguish between these alternate explanations, another aim of future research should be to identify and compare the sources of information that individuals most closely associate with their recollections of historical events.

In addition, having the personal experiences associated with historical events may foster idiosyncratic recollections that may be important to certain individuals but not necessarily shared by others. For example, most of the older adults in our sample were born and raised in Missouri. Missouri was a slave state before the war but did not secede from the U.S. During the Civil War, the Mason–Dixon Line divided the state such that the northern portion sided with the Union and the Southern portion sided with the Confederacy. In many cases, members of the same family were enlisted as either Union or Confederate soldiers and fought against each other in battle. Not too surprisingly, 20 % of the older adults listed "families divided" as one of the 10 most important events of the Civil War.

Many of the older adults were also young children during World War II. The older adults were 12 years old, on average, when the war ended in 1945, and 20 % of them were born at some point during the war. It is, therefore, not too surprising that some of the events that the older adult subjects listed were events that occurred on the home front of which they had some personal connection or episodic recollection. For instance, some events that older adults (but few or no younger adults) listed included: "war bonds sold," "windows had to be covered in black at night," "rationing of food and gasoline," and the "death of FDR." These specific recollections, although not shared by the majority of older adults, highlight the extent to which idiosyncratic personal experience influences the remembering of national historical events and contributes to intergenerational differences in collective memory.

Age-related changes in cognition and collective memory

The observed differences in both the variability and characteristics of events recalled by older adults, as compared with younger adults, may also be explained, at least in part, by normal cognitive effects of healthy aging. First, the finding that younger adults exhibited greater consensus in their recollections than did older adults for each of the major wars is consistent with the notion that older adults exhibit impairments in either encoding new episodic associations or retrieving episodic associations from earlier time periods (e.g., Kahana et al., 2002; Naveh-Benjamin, 2000). Younger adults may better utilize episodic associations among historical events to guide their recollections and list more events that share a common episodic structure.

Second, whereas younger adults recalled more specific events of short duration, older adults recalled more extended and summarized events of long duration. One possible explanation is that older adults may tend to rely more upon semantic gist information than context-specific episodic cues to guide memory retrieval (e.g., Castel, 2005; Levine et al., 2002; Tun et al., 1998), thereby producing more recollections that are stripped of distinct spatiotemporal context information and summarize multiple episodes that occurred over relatively long periods of time.

An illusion of collective remembering?

Perhaps the most novel and intriguing result of the present study was the finding that perceptions of collective memory can differ from what people collectively remember. Both younger and older adults overestimated the extent to which members of their group or the other age group would recall the same events that they recalled. Although both groups predicted that older adults would share their recollections of historical events to a greater degree than younger adults, there was significantly less consensus in the recollections of older adults. Both younger and older adults demonstrated adequate ability to distinguish important collective memories from idiosyncratic events (as indicated by moderately high measures of resolution). Nevertheless, our findings suggest that people may still be biased in their general perceptions or expectations (i.e., calibration) about the set of historical events that other people in their social group or in other social groups recollect. This dissociation between predicted and objective consensus in recall could be viewed as an illusion of collective remembering-an illusion that may be another manifestation of the false consensus effect (Ross et al., 1977). The finding that people can experience an illusion of collective remembering may have important scientific as well as societal implications. To the extent that collective memories help to shape and maintain social identities and inform political discourse, collective memory illusions may also play a significant role in culture and politics by either fostering artificial divisions or, conversely, promoting a false consensus of historical interpretations or political viewpoints.

Conclusion

We have reported an exploratory empirical study of collective memory for younger and older Americans of three major U.S. wars. Our study has limitations: The samples were those of convenience and were not representative, the topics studied were all wars, and we have no cross-national data for comparison. Nonetheless, the findings reveal both similarities and differences among events recalled for older and younger adults, as discussed earlier. One interesting feature brought out even in our study is how collective memories for public historical events may reflect a type of cultural narcissism, telling "history" from the perspective of the individual and his or her group. People seem motivated to recollect events that conform to a culturally specific narrative that paints their social group in a positive light. At the very least, collective memories often ignore or downplay events that would reflect poorly on their social group or nationality (just as, for so long, Americans minimized the treatment of native Americans as French, Spanish, and English peoples conquered North America). This mechanism would seem to operate at all levels

of social groups and for both personal and public memories (e.g., Hastorf & Cantril, 1954; Ross & Sicoly, 1979).

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Appendix

Example list of 10 events from the Revolutionary War that was presented to subjects in order to illustrate the types of events that someone might free recall for the Civil War, World War II, and the Iraq War

| Number | Event |
|--------|--|
| 1 | The ride of Paul Revere |
| 2 | Battles of Concord and Lexington |
| 3 | The Boston Massacre |
| 4 | Washington crosses the Delaware River to capture Trenton |
| 5 | Treaty of Paris |
| 6 | The first Continental Congress |
| 7 | Declaration of Independence |
| 8 | Thomas Paine publishes "Common Sense" |
| 9 | Cornwallis surrenders at Yorktown |
| 10 | The French alliance |

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