

The Generational Basis of Historical Knowledge

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The research discussed here tests more literally than Mannheim perhaps intended, the claim that "I only really possess those 'memories' that I have created directly for myself, only that 'knowledge' I have personally gained in real situations. This is the only sort of knowledge which really 'sticks' and it alone has real binding power" (1928/1952, p. 296). Moreover, an even stronger hypothesis can be drawn from his view that adolescence and early adulthood are a stage of life uniquely open to gaining knowledge about the larger world: "It is only then that life's problems begin to be located in a 'present' and are experienced as such. . . . The 'up-to-dateness' of youth therefore consists in their being closer to the 'present' problems . . . the older generation cling to the re-orientation that had been the drama of *their* youth" (1928/1952, pp. 300-301). Thus, knowledge of events should not only be acquired primarily from personally experienced situations, but should occur especially for events experienced during adolescence or early adulthood.

Schuman and Scott (1989)—stimulated by Mannheim's (1928/1952) ideas on personal experience and generational effects, and of Halbwachs (1950/1980) and others on collective memory—showed that attributions of importance to national and world events of the past half century tend to be a function of having experienced an event during adolescence or early adulthood.¹ However, their basic open-ended question to a cross-section of

¹Similar results have been obtained by Scott and Zac (1993) using English data and by Schuman, Rieger, and Gaidys using Lithuanian data (1994). Interesting corroborative

dren may hear or overhear the talk of their parents or grandparents—knowledge of past events should decline gradually rather than precipitously across cohorts.

2. *Complex Curvilinear Version.* Because adolescence and early adulthood provide a unique openness toward larger events, those who were past this stage when an event occurred should have somewhat less knowledge of it than those who were in their youth at the time. Although Mannheim (1928/1952) stated a specific age range (17–25) as crucial, it is unlikely that anything so precise can be applied literally today, especially a range generalized from casual observations in Europe in the 1920s. The range may also vary by type of event (e.g., simple dramatic events may have an impact at an earlier age than do more abstract events). If the basic curvilinear relation implied by this hypothesis is found, approximate age ranges for the maximum impact of events are best determined by empirical investigation.

3. *Other Social Attributes and Identities.* In addition to the primary age-related hypotheses, several specific social connections are explored that can modify general associations: (a) Education as an important source of non-personal learning about the past should have a direct effect on what is known, and may also interact with generational experience. The first part of this hypothesis is so obvious that education is treated as an essential control variable in all analyses, but its separate effects and its interactions with age are considered as well. (b) Knowledge of the past should also be a function of gender and race when they have personal meaning in relation to specific events. In particular, events concerning race are likely to be more meaningful and therefore better known by Blacks than by Whites, and events related to gender should show different effects for men and women. Furthermore, an event of continuing importance to one racial group (specifically, the name "Rosa Parks" for African Americans) should show weaker age effects than for a less involved racial group (Whites), because the latter should be more dependent on contemporaneous reports of the event for knowledge of it.

METHOD

Nine events from the past, represented by names of persons or in other ways, were first presented in 1991 to a probability sample of adults, age 18 and over, drawn from the three-county metropolitan Detroit area and interviewed face to face through the Detroit Area Study (referred to below as the DAS91 sample). The most important results from a theoretical standpoint were then replicated in a larger national probability telephone sample carried out by the University of Michigan's Survey Research Center

Americans in 1985 called for respondents to mention any two "especially important national or world events or changes," and did not directly assess knowledge about the past. For example, a person could attribute special importance to World War II and the assassination of President Kennedy when asked to report any two especially important events from the past 50 years, yet that need not indicate a lack of knowledge about the Vietnam War or about other major events of the past half century.

The present study focuses on actual knowledge about the past, rather than on spontaneous mention of events that come immediately to mind in response to a general question about the past. It considers a set of 11 political, social, and cultural events spread over the past 60 years, with each event posed separately, so that respondents are not restricted to speaking about only one or two. In the theoretically most interesting cases, where the events occurred approximately midway in the life cycle of present older adults and therefore lead to predictions of nonlinear relations to cohort, substantial replications and extensions were carried out.

Although the main concern is with the generational basis of knowledge, other social identities are considered that might contribute to making facts from the past "stick," as well as the possible interaction of these identities with generational location. In addition, consideration is given to how generational experience can affect expectations about the recurrence in the future of an important type of political event from the past. At the conclusion of the empirical part of the chapter, reasons are discussed as to why events may (or may not) have differential impacts on cohorts, and there is speculation on the possible implications of the results for types of knowledge other than that of historical events.²

More specifically, the focus is on the following basic hypotheses about generational effects:

1. *Simple Linear Version.* People are least likely to have accurate knowledge of events that happened before their birth. As a correlate, they are also less likely to know about an event that occurred during their early childhood than do those who were already into adolescence or young adulthood when the event occurred. However, because there is often informal transmission of knowledge across generations—for example, chil-

evidence is reported by Pennebaker (1993), for example, that monuments tend to be built between 20 and 30 years after a war or other similar event, presumably by the generation that experienced the event at an earlier point during its own youth.

²"Cohort" and "generation" are used as approximately equivalent terms, but with different connotations. Cohort focuses on age ranges that are delineated with a fair degree of precision in terms of birthdate, but we do not restrict generation, as demographers might prefer, to "the temporal unit of kinship structure" (Ryder, 1965, p. 853). Generation refers more loosely and broadly to groupings in terms of birth years, but suggests also the shaping of beliefs by a historically significant period.

in the summer and fall of 1993, together with two new events added as further tests of the earlier findings; this 1993 national sample is referred to here as SRC-93.³

In both surveys, respondents were told midway in an interview:

This next section concerns a few words and names from the past that come up now and then, but that many people have forgotten. Could you tell me which ones you have heard of at all, and, if you have, what they refer to in just a few words?

The 11 distinct events from the two surveys range from the "WPA," which dates from the 1930s, to "Christa McAuliffe," whose 1986 death in the Challenger explosion was the most recent event. Answers to all events were scored 2 if judged correct according to the coding criteria, 1 if judged partially correct, and 0 if the respondent said "don't know," or gave a completely incorrect answer. (Agreement between two coders on the scoring of 105 DAS-91 cases chosen at random ranged from 87% to 100% over the nine events, and for 229 SRC-93 cases from 80% to 91%.)

All 11 events are shown in Table 3.1, with the distribution of scores on each and examples of answers scored as correct (score of 2). Scores of 1 for partially correct were given to answers that were accurate but vague (e.g., connecting the Tet Offensive with Vietnam but with nothing more specific). Answers scored 0 as incorrect usually resulted from "Don't Know" responses rather than from erroneous statements, but errors that do occur will also be seen to be of interest from a generational standpoint.

The major analytic variable is age, which is treated as indicating cohort, though whether age has this meaning rather than one based on assumptions about the aging process itself will depend on the nature of the results. In order to present age effects graphically, most analysis has been done using 12 categories of age, as shown in Fig. 3.1 and most subsequent figures. The total age range is from 18 to 80; those 81 and over are omitted partly because they provide too few cases over too wide an age/cohort range (81 to 96 in the DAS data) and partly because even with education controlled interviewers rated the "understanding" of this subsample as appreciably lower than the rest of the sample. It seemed better to avoid

³The final DAS-91 sample size was 1,042 and the response rate was 78.1%. The SRC-93 sample was constructed from new RDD surveys of approximately 500 individuals each month from July through November, though most questions were asked in fewer than the 5 months, so the *N*s vary from 1,010 to 2,982. Each monthly telephone survey uses an independent probability sample composed of a new RDD subsample of about 300 cases, with random selection within households, and a random subsample of about 200 individuals who had been interviewed 6 months earlier in a monthly survey (but not with these questions); the RDD component has an average response rate over the 5 months of 69.6%. The basic results are replicated between these two components, as well as between the DAS-91 and SRC-93 surveys, as shown later.

TABLE 3.1
Events From the Past: Distribution of Knowledge Scores

Event	Approximate Knowledge Scores			N	Examples of Scores of 2
	0	1	2		
WPA (D)	1938	64%	7	100	"FDR gave work to people in the 1930s"
Holocaust (D)	1945	29%	13	100	"Genocide on the Jews by the Germans"
Marshall Plan (D)	1947	79%	7	100	"To help foreign countries after the war"
Joe McCarthy (D)	1954	64%	12	100	"1950s equivalent of the Salem witch trials"
Rosa Parks (D)	1955	21%	34	100	"She wouldn't move to the back of the bus"
Tet Offensive (D)	1968	70%	15	100	"Communists attacked us in Vietnam"
Tet Offensive (S)	1968	66%	16	100	"Communist attacked us in Vietnam"
My Lai, Village of (S)	1969	65%	17	100	"The American army shot women and children; one fellow was court-martialed"
Woodsstock (D)	1969	25%	14	100	"That's the hippies' concert"
Woodsstock (S)	1969	24%	15	100	"When Nixon broke the rules"
Watergate (D)	1973	14%	37	100	"Did a lot of testifying in Watergate"
John Dean (S)	1973	67%	21	100	"In the space shuttle disaster"
Christa McAuliffe (D)	1986	49%	6	100	"Hearings, blew the whistle on everyone"

Note: Responses were scored 2 if judged correct, 1 if judged partly correct, and 0 if judged incorrect or the respondent said don't know (DK). Most zero responses resulted from DK answers. The letter *D* after an event indicates that the results are from DAS-91. The letter *S* indicates that the results are from SRC-93.

ambiguities in this regard.⁴ Educational attainment is used throughout as a direct statistical control, and results were checked separately for interactions with gender and race.⁵

Our primary mode of analysis and presentation is through Multiple Classification Analysis (MCA), which organizes results from dummy variable regressions in the form of deviations from the grand mean (Andrews, Morgan, Sonquist, & Klem, 1973); the deviations are then converted into means by age categories, with adjustment to control for differences by education. In most cases, the three-category knowledge scoring (scores 0, 1, 2) is treated as a dependent variable, and graphs are shown for all important relations. Ordinary least squares (OLS) regression results are presented with each graph: first the unstandardized linear coefficient, with education controlled, then the coefficient for an added quadratic term, with significance levels in parentheses after each coefficient. A number of checks have been made to provide confidence that these approaches, which facilitate detailed inspection of the shape of relations, do not distort conclusions about statistical significance. For all analyses shown graphically, scores were also collapsed in alternative ways (2 vs. 1 & 0 combined; 2 & 1 combined vs. 0) and logistic regression (with and without quadratic terms) was used to replicate the OLS results. This provides a further test of both the coding distinctions and statistical approach. In the few instances where a conclusion would have been changed in substantive respects, they are noted in the text or footnotes. More generally, although coefficients and significance levels provide useful guides and checks, primary emphasis is put on patterns clear enough to be reviewed visually, rather than focusing on every effect that is significant for any part of a curve with these fairly large samples.⁶

⁴Even those in our 75- to 80-year-old category present some ambiguity, making it hard to be confident that cohort experience can be distinguished from present problems of functioning in some individuals. The final age categories vary slightly in size (5- or 6-year ranges) in order to preserve intuitively meaningful groupings by decade (e.g., 30s, 40s, 50s, 60s, 70s), yet also include those 18 and 19 who were in the original sample, as well as those age 80.

⁵Education is ordinarily used as a six-category control variable: 0-8, 9-11, 12, 13-15, 16, 17+ years of schooling, but when education-age interactions are examined graphically, education is reduced to four categories (8-11, 12, 13-15, 16+) and age to six categories (18-29, 30s, 40s, 50s, 60s, 70-80) in order to preserve cases. When race is employed as a separate variable, self-identification as African American or White is used and other ethnic groups are ignored, but for all other analyses no such exclusion is made. Interactive results for education, race, and gender will not be regularly noted, but will be reported when they affect substantive conclusions in important ways.

⁶For example, in Fig. 3.2, logistic regression shows a significant quadratic term for age for the Marshall Plan, although OLS regression does not. However, the logistic result is based on the change in the oldest (75-80) age category, because the coefficient does not approach significance when that category is omitted. The main conclusion about the generally monotonic relation of age to knowledge in this case is unchanged, leaving the nature of the effect for the oldest age group ambiguous and better explored with other items.

FINDINGS

Preliminary Results

Table 3.1 shows that at one extreme the Holocaust and Woodstock could be described adequately by more than 60% of the samples, whereas at the other extreme less than 15% of the respondents could provide an explanation scored as correct for the Marshall Plan or John Dean. (Detailed accounts were not required for a score of 2, and "pithy" summaries were accepted when they seemed to imply adequate knowledge of an event, e.g., "When Nixon broke the rules" for Watergate.) Differences of a few percentage points in knowledge of two events should not be treated as meaningful, because there is inevitably judgment involved in the level of completeness to require for a "correct" response to any particular event. However, more substantial differences, especially at the zero end of the scale, surely do reflect variations in knowledge across the populations sampled.⁷

Because of the assumed importance of education to knowledge, it is useful to compare its associations with those for age, as a way of getting a rough sense of the comparative strength of the two predictors. Because the associations for age are expected to be nonlinear in some cases, in Table 3.2 η^2 is used as a simple measure of association, and six categories are employed for both variables. (Separate use of squared product-moment correlations with education, where the relation is essentially linear in all cases, shows them to differ only trivially from the η^2 's in Table 3.2.) Comparing columns 1 (age) and 2 (education) and focusing on the median values to deemphasize a large outlier for the Works Progress Administration (WPA), it can be seen that age typically accounts for about two thirds as much variation in knowledge of past events as does education.⁸

⁷For the two events included in both DAS-91 and SRC-93, the distributions in Table 3.1 are quite similar despite the fact that the populations, modes of administration, time points, and many other features of the two surveys were different. For Woodstock, the difference in marginal distributions between DAS-91 and SRC-93 does not approach significance. For the Tet Offensive, the difference is significant ($p < .05$) but small, and it does not approach significance when the comparison is controlled for race. African Americans constitute 20% of the DAS-91 sample, but only 9% of the SRC-93 sample, and their effect is to reduce the DAS-91 average age and education, both of which are correlated inversely with knowledge. Even without controlling for race, the relation of knowledge of the Tet Offensive to age is very similar in the DAS-91 and SRC-93 samples, so the present difference is not only small but does not extend to the analysis that is the main concern.

⁸Although primary interest is in separate events at particular points in time, a total scale was constructed by averaging the nine DAS-91 items. The mean of .93 ($sd = .5$) indicates that respondents averaged just slightly below a partially correct answer (score of 1). Only 2% of the sample received a perfect score of 2 on all nine events, and only 3% a failing score of 0 on all nine events. Because the nine knowledge item scores are all positively intercorrelated (mean $r = .90$), the reliability of the scale can be estimated as .79 (coefficient

longer shows a reliable gender difference.) Results by race and gender are discussed further when considering the knowledge items separately.

The Simple Linear Hypothesis of Generational Effects

The simplest form of the generational hypothesis is that knowledge of a past event decreases with cohort distance from the event. This hypothesis leads to prediction of an approximately linear relation of knowledge to age across the entire life span for events that occurred at the beginning of the total period we are dealing with (the 1930s through the 1980s), though perhaps with a plateau reached once there is a great deal of distance from the original event—because commemorations, school teaching, and other reminders may then provide occasional new sources of knowledge for some events.

The WPA, the earliest of the 11 events, should fit this prediction well. It was in existence and widely known between 1936 and the early 1940s, with the largest number of workers employed in 1938 (Howard, 1943, p. 534), the date used as a convenient marker for expected peak knowledge. Information should have been obtained by the estimated 8.5 million people who received support directly from the WPA, from their relatives and friends, and by those who heard about it at the time from radio or newspaper reports. Yet once ended, it was not something reenacted with fanfare on a 25th or other anniversary, nor the stuff of major film or television dramas. Thus, knowledge of the WPA should be greatest for those of the generation that participated in it, less for each later generation—gradually diminishing from the oldest to the youngest cohorts in this sample.

With education controlled, the trend shown in Fig. 3.1 fits this prediction quite well, with the peak at ages 70 to 74 in 1991, a cohort ranging from age 17 to 21 in 1938, and a nearly linear slope downward from the peak toward younger cohorts. Among the two youngest cohorts, a low lying plateau appears to have been reached, with most not knowing anything about the WPA but a tiny number having learned enough from some source to be scored correct (only 7 out of 193 respondents under age 30 received a score of 2).⁹ At the oldest end there is an apparent drop in knowledge, which would fit nicely an assumption of the importance of adolescence—because the 75- to 80-year-old cohort was already moving beyond adolescence in 1938—but the small size of that subsample and other evidence to be presented makes such an interpretation uncertain at

⁹The significant positive quadratic coefficient shown in Fig. 3.1 is due to the leveling off among the youngest age categories: If the three youngest categories are omitted, the quadratic coefficient does not approach significance. In addition, when the 3-point scale is reduced to a dichotomy in either direction, the quadratic term in logistic regressions is no longer significant ($p > .10$).

TABLE 3.2
Eta Square for Events by Age, Education, Race, Gender

Event	Age*	Education**	Gender***	Race****
WPA (D)	.32	.04	.03	.02
Holocaust (D)	.04	.07	.00	.03
Marshall Plan (D)	.08	.12	.07	.04
Joe McCarthy (D)	.08	.11	.04	.05
Rosa Parks (D)	.01	.02	.00	.02
Tet offensive (D)	.06	.08	.13	.05
Tet offensive (S)	.06	.10	.12	.02
Mylai, Village of (S)	.14	.12	.04	.03
Woodstock (D)	.07	.15	.01	.12
Woodstock (S)	.06	.14	.02	.04
Watergate (D)	.04	.07	.01	.02
John Dean (S)	.09	.11	.01	.01
Christa McAuliffe (D)	.02	.08	.00	.07
Mean	.09	.09	.04	.04
Median	.07	.10	.02	.03

Note: The letter D indicates the results are from DAS91, S from SRC-93.

*Based on six age categories: 18-29, 30-39, 40-49, 50-59, 60-69, 70-80. All associations significant at $p < .01$, except $p < .02$ for Rosa Parks.

**Based on six education categories: 0-8, 9-11, 12, 13-15, 16, 17+. All associations significant at $p < .01$, with direction positive in all cases.

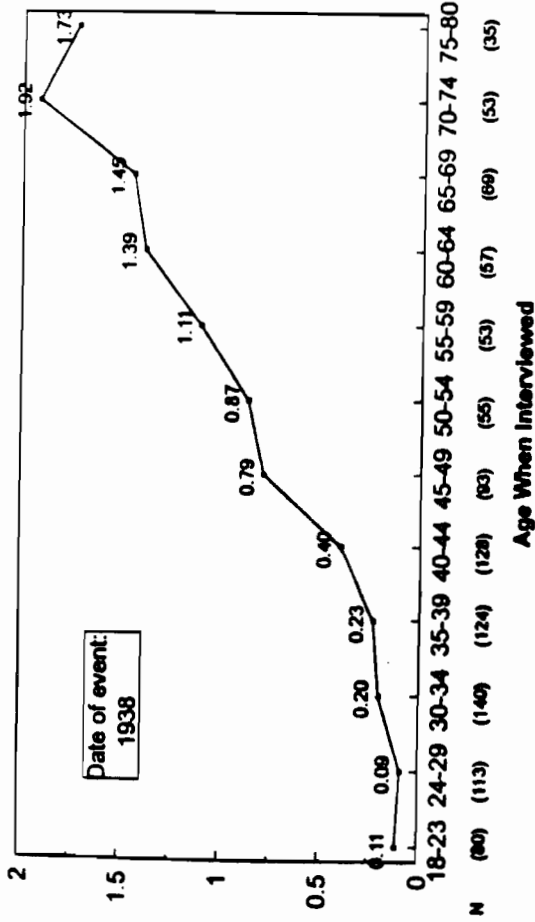
***All associations significant at $p < .01$, except $p < .04$ for Woodstock in DAS-91, $p < .02$ for Watergate, and $p > .10$ (n.s.) for Holocaust, Rosa Parks, and Christa McAuliffe. See text for direction of associations.

****African Americans and Whites only. All associations significant at $p < .01$. See text for direction of associations.

The same kinds of associations were obtained for race and gender, as shown in Table 3.2. There are significant African American-White differences for each event, and they indicate greater knowledge among White respondents, except that knowledge of Rosa Parks is greater among African American respondents. Men had significantly higher correctness scores than women for six of the nine events, especially those dealing with military or foreign policy; however, the gender difference disappears for knowledge of Rosa Parks, Christa McAuliffe, and the Holocaust—broadly social rather than purely political events, of which two are about women. (All the race and gender differences remain statistically significant when education, age, and age squared are controlled using OLS regression, except that Watergate no

alpha), though its Guttmanlike nature makes this only approximate. The correlation of the overall scale with education is $r = .40$, indicating that education accounts for less than a fourth of the reliable variation in the scale. Thus, most of the variation remains to be explained by other variables.

Knowledge Score for WPA



Mean knowledge score: .65
 Linear: $b = .18 (.001)$; quadratic: $b = .01 (.001)$

FIG. 3.1. Knowledge of WPA by age, with education controlled. Source: DAS-91

best. It is better to treat Fig. 3.1 as essentially monotonic, and to look for important nonmonotonic relations on other items more suited to the theoretical issues posed by the end points of age.

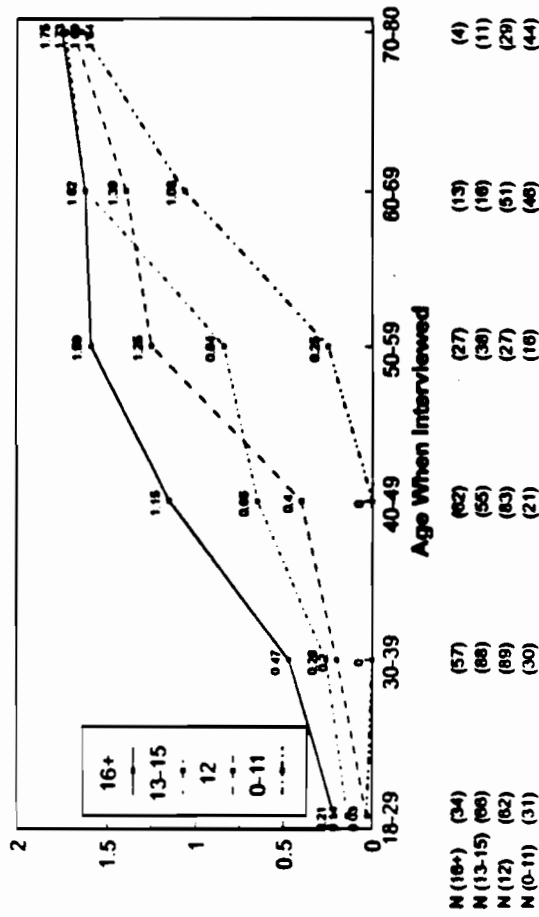
For the WPA, cohort is unusual in being a much stronger predictor than education, as shown in Table 3.2. Thus, personal experience or transmission across the generations is considerably more important in this case than is formal learning. The personal nature of knowledge of the WPA, including its transmission, is revealed clearly in a number of responses, exemplified by the following two:

Kept my dad working and food in my mouth when we were kids during the Depression. (Man, age 66)

My grandfather worked on it. Provided work for people during the Depression, as I was told. (Man, age 47)

Altogether four explicit mentions were found of husbands employed by the WPA, 14 of fathers and 1 of a mother, and 2 of grandfathers. In this way, the WPA is unique among all our events in that knowledge of it is rooted in many individual lives.

Knowledge Score for WPA in Educational Categories



Source: DAS-91

FIG. 3.2. Knowledge of the WPA by age, within four educational categories.

There is also evidence in the MCA results of an interesting interaction ($p = .05$) between age and education in their effects on knowledge of the WPA. When the relation of age to knowledge of the WPA is examined graphically for different educational levels in Fig. 3.2, the most unusual group comprises those at the lowest educational level: They show little knowledge across the 18- to 59-year-old categories, then a sharp slope upward toward convergence with more educated persons at the oldest age levels. Thus, direct experience with the WPA is especially important at this educational level, with less evidence of remote transmission of knowledge across generations.¹⁰

Two other events asked about in DAS-91 go back almost as far as the WPA: "the Marshall Plan," first announced in 1947, and "Joe McCarthy," dating from the early and mid-1950s, with 1954 perhaps the high point in McCarthy's brief and fiery career. Neither is as well recognized today as the WPA, and the Marshall Plan has the lowest level of knowledge of all

¹⁰Interactions with gender and race were examined by repeating the age and education MCA separately for men and for women, and separately for African Americans and for Whites. The basic trend shown in Fig. 3.1 is replicated within each of these four categories with only minor differences. (Combinations of race and gender are not used because they yield very small samples for African American men and African American women when broken by age categories.)

in the samples were not even born at the time of the two events, whereas the oldest people—including those in their mid-50s and thus not just the very old—had already left their 20s at that point in time. In other respects, the two events are quite different from each other: Tet was an important turning point in the Vietnam War, but it is now seldom mentioned outside of books on that war; Woodstock was a public happening that came to symbolize much of the 1960s counterculture mentality, was subsequently incorporated into film, and was celebrated again on its 25th anniversary in 1994. The difference in lasting impact between the two events is shown clearly in the overall percentages of respondents in the national survey who could give a correct definition of each: 15% and 18% for Tet in the two surveys, 61% for Woodstock in both.

In DAS-91 both Tet and Woodstock showed clear evidence of the predicted curvilinear relations to age, but given the crucial theoretical importance of the curvilinear specification and the desirability of generalization across populations and modes of administration, the question was repeated for both words in 1993 using the larger SRC national telephone sample. Both sets of results are presented for both events in Figs. 3.5 and 3.6.

For the Tet Offensive, the predicted curvilinearity appears in almost perfect form: Using the national sample peak, maximum knowledge occurs for those ages 45 to 49, which places them in their early twenties in 1968 when the Tet Offensive occurred. The fall-off with present age appears in

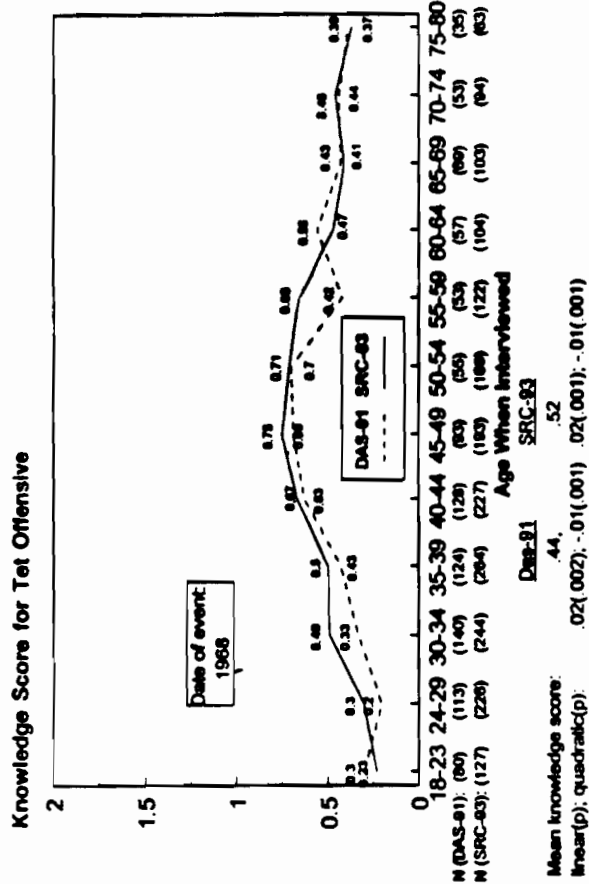


FIG. 3.5. Knowledge of the Tet Offensive by age, with education controlled.

Knowledge Scores for Marshall Plan and Joe McCarthy

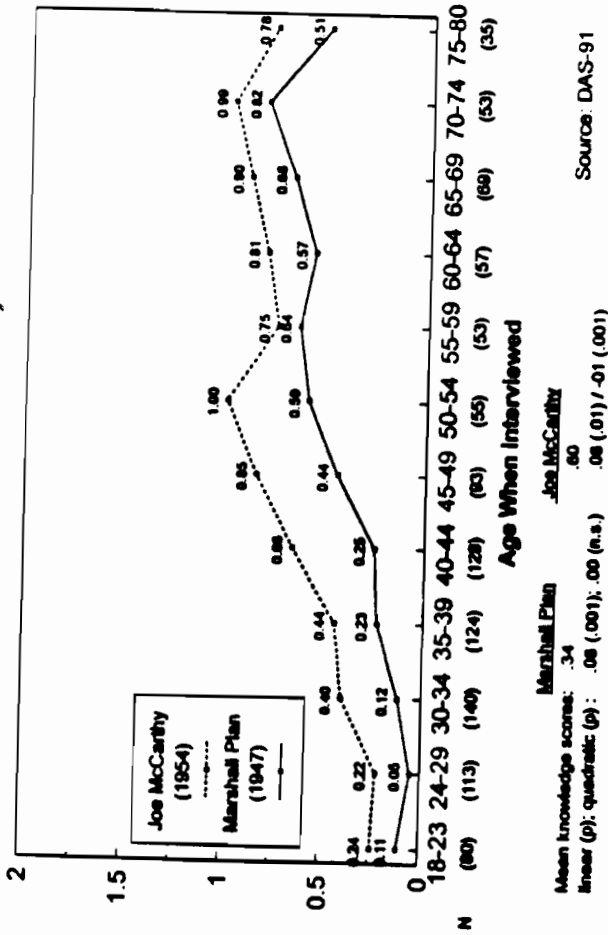


FIG. 3.3. Knowledge of Joe McCarthy and of Marshall Plan by age, with education controlled.

the terms presented. Figure 3.3 shows that the Marshall Plan peaks at ages 70 to 74, equivalent to ages 26 to 30 when the event first occurred, and when taken at face value this result suggests a slightly later point than was true for the WPA. This seems to be a plausible finding for such an abstract event, requiring more background in and attention to news reports than most other events individuals were asked about.¹¹

The curve for Joe McCarthy presents more of a puzzle because it appears to be bimodal, with peaks at ages 50-54 (13-18 in 1954) and 70-74 (39-37 in 1954). Although either of these might possibly be explained if taken alone—the younger one more easily if adolescent experience is emphasized—the combination does not lend itself to any plausible interpretation. Moreover, the bimodality is located largely among men; women show a monotonic upward trend. Unless the bimodality for men can be replicated

¹¹ Age and education do not interact, because the lowest educational category does not converge with the others, as was the case for the WPA, no doubt because personal experience could not be a source of knowledge in this case. (The coefficient for men is significantly greater than for women, $p < .02$, and for Whites significantly greater than for African Americans, $p < .01$. However, the linear relations differ from zero [$p < .01$] for all four groups [men, women, African Americans, Whites] and here, as elsewhere, differences tangential to the main concerns have not been pursued.)

those in their youth at the time, though more sharply so for the event (Tet) that is less carried forward by the media and much less well known overall.¹³ Moreover, generation provides not only a basis for knowledge, but also serves to shape ignorance. The wrong answers given to the Tet Offensive were examined and it was discovered that five of these referred to the Korean War, and that all five individuals (four men and one woman) were within the age range from 51 to 66 in 1991 (i.e., ages 13 to 25 during the 1950-1953 Korean conflict).¹⁴

One other event was included in DAS-91 from a later time point that might also be expected to show a curvilinear relation to age, but fails to do so: "Watergate," which is dated for convenience from 1973, though it extended over a somewhat longer period and is still being referred to today. It is also extremely well known, with the fewest respondents scored as having no knowledge at all, though it ranks lower in terms of perfect scores of 2 (see Table 3.1).¹⁵

Figure 3.7 shows that there is essentially a level degree of knowledge about Watergate among those beyond their 20s in 1991, with the only important variation occurring for the two youngest cohorts in the sample.¹⁶ A plausible interpretation is to regard Watergate as too widely known to suffer a decrement of knowledge among older people as happened with Tet, but evidence to be presented later does not support this conclusion.

¹³Men show a significantly greater quadratic effect for Tet (but not for Woodstock) than women. This interaction with gender is discussed further later, because appreciation of its importance becomes clearer in the context of all the results.

¹⁴The cross-tabulation of substantively wrong answers by age categories is as follows:

Age 51-66 (N=10)	Korean War	Other Events
5	5	4
0	0	23

(Fisher's exact test:
 $p < .001$)

Most of the errors (18 of the 23) in the bottom right cell were by persons younger than age 51 (i.e., persons who would have had little or no knowledge of the Korean War). (This approach to "wrong answers" has been developed in a separate article by Belli, Schuman, & Jackson, in press.)

¹⁵For a score of 2 respondents were required to have mentioned Nixon and indicated something about alleged wrong doing, whereas 1 was scored if there was only vague mention of a "scandal" in connection with Nixon. This may have been too high a hurdle, but in any case the pattern shown in Fig. 3.5 is essentially unchanged if scores are dichotomized in both directions (2 vs. 0 & 1 combined, or 2 & 1 combined vs. 0) and use logistic regression. Nor do conclusions change when MCA's are run separately within race and gender categories, nor when other leads were explored in an effort to show an age curve for Watergate similar to that for Tet.

¹⁶When education is treated as an interactive variable, respondents with 16 or more years of education do show the hypothesized curvilinear relation. But in the absence of both replication and plausible interpretation, this cannot be given great weight.

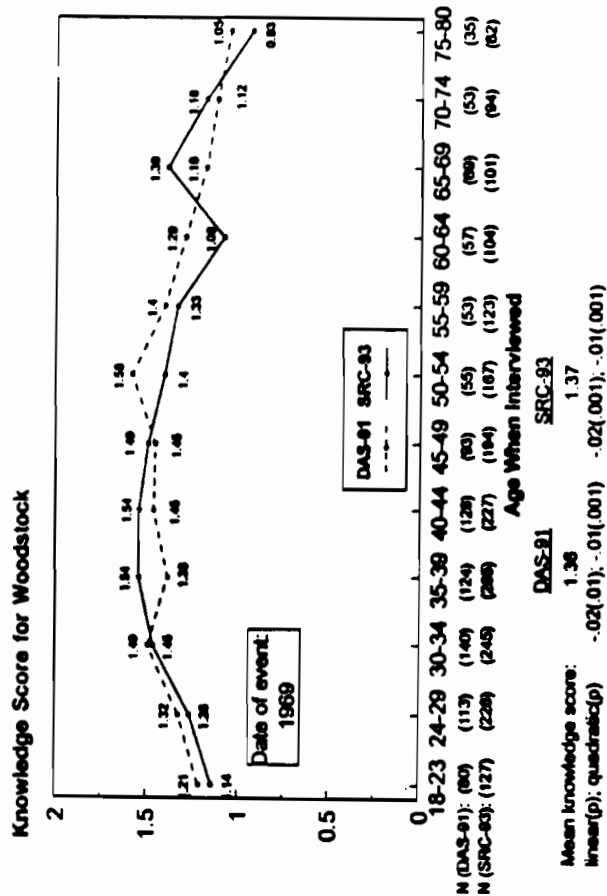
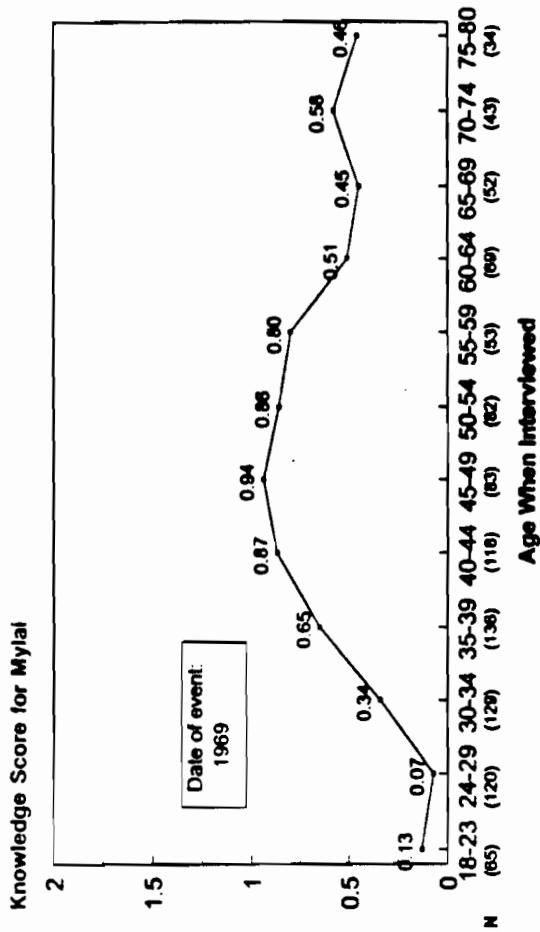


FIG. 3.6. Knowledge of Woodstock by age, with education controlled.

both directions, though not surprisingly, knowledge of Tet is a little greater among the oldest members of the sample who lived through it than among the youngest (and the overall positive linear trend is significant). However, the downward slope from the critical age period is clear on both sides of the peak.

For Woodstock, there is no single clear peak, but the basic curvilinearity seems evident as well. The knowledge peak for the larger national sample is a little younger for Woodstock than for Tet—roughly 35 to 44, which meant 11 to 22 in 1969 using both surveys for dating. But unlike Tet and all other events studied, ignorance is greater among the older cohorts than among the very young: This is the only case where the linear trend is negative. An interpretation of the difference from Tet is compelling: Woodstock was aimed at the young; it celebrated youth at the time and has been carried on primarily by the young, including many not even born in 1969. (The rise at ages 65 to 69 for SRC-93 is probably due to sampling error, because it does not occur at all in the DAS-91 sample.)

Thus, the more complex generational hypothesis receives substantial support from these data about two quite different events from the end of the 1960s, one a well-known cultural "happening" and the other an almost forgotten military and morale crisis. For these two events, it is evident that historical knowledge receives an important generational contribution from



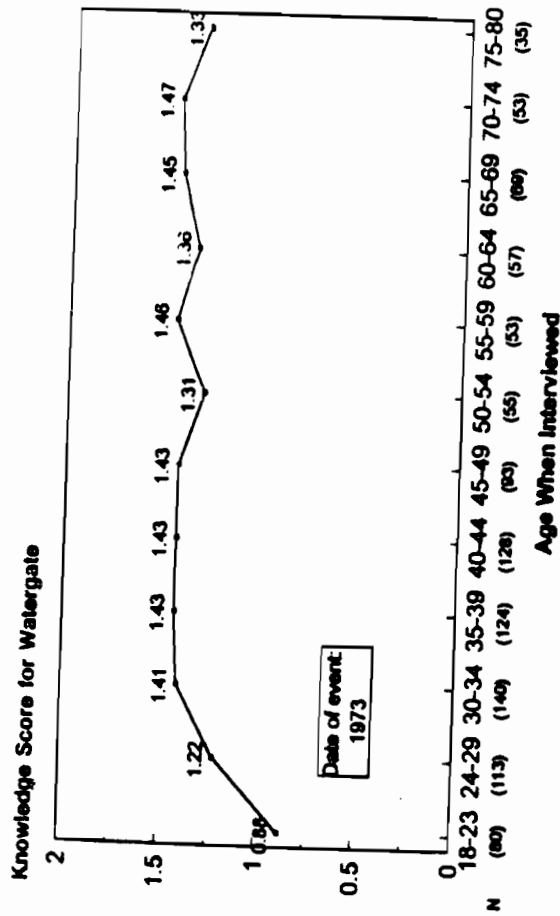
Mean knowledge score: 0.55
 linear(p): .05(.001); - .02(.001) Sources: SRC-83

FIG. 3.8. Knowledge of Village of Mylai by age, with education controlled.

As Fig. 3.8 shows, Mylai presents a curvilinear pattern strikingly similar to that for the Tet Offensive. The peak at ages 45-49 (21-25 in 1969) is exactly the same as occurred for Tet in the national sample. The overall finding shows that the pattern of knowledge for Tet was not a unique or idiosyncratic one from a theoretical standpoint, and thus provides further evidence for the importance of youth as a source of knowledge of the Vietnam War and presumably of other events of a similar nature.

As a comparison to Watergate, John Dean was chosen, with his main date of notoriety being 1973 when he testified before a Senate committee. If there is something about a major domestic political event like Watergate that makes it differ from military events like Tet, then Dean should replicate the shape of the results for Watergate. On the other hand, because it was expected and found that John Dean was much less well known today than Watergate, this might lead to a pattern more like that for the Tet Offensive and the village of Mylai.

Figure 3.9 for John Dean is clearly closer in appearance to the earlier findings for knowledge of Watergate than for Tet. As with Watergate, the youngest people in the sample show distinctively low knowledge, with "young" here extending upward toward age 39 (toward age 19 at the time of Dean's testimony). The twin peaks at ages 45-49 and 55-59 provide a



Mean knowledge score: 1.35
 linear(p): .03(.001); -.01(.001) Sources: DAS-91

FIG. 3.7. Knowledge of Watergate by age, with education controlled.

Two Extensions: The Village of Mylai and John Dean

The Tet Offensive provides a clear confirmation of assumptions about the importance of youth to historical knowledge, but results for Watergate do not conform to the same assumptions. It seemed useful to determine whether other events closely related to each of these replicated their respective patterns, or modified or disconfirmed them, because the goal is to generalize beyond any particular event. Late in the period of the 1993 surveys, two new events were added for this purpose.

As a comparison with Tet, "the village of Mylai" was chosen, which refers to a massacre of Vietnamese civilians by U.S. troops in 1969. It deals with the same war, just a year later, but the nature of the event is clearly different in all other details. Although the Tet Offensive was the far more important event strategically and historically—Karnow (1983) devoted 25 pages to the Tet Offensive and just four passing mentions to Mylai—Table 3.1 shows that Mylai is better known than Tet ($p < .001$, for a comparison of the univariate figures in Table 3.1). The sharper focus of Mylai and the later controversial trial of U.S. servicepersons may account for this difference, as suggested by 35 mentions of Lt. Calley, one of the main soldiers indicted for involvement in the massacre.

For such people, the incidents and revelations leading up to and through Watergate constituted their most salient knowledge of national politics—knowledge that could not be placed in the larger context brought by those who had lived through previous presidencies. Thus, it was hypothesized that this deeper form of knowledge would contribute to a greater sense of concern about the possibility of a similar occurrence in the future than it would for others who had themselves been older when Watergate took place.

To test this hypothesis, a new question was constructed, one not directly about knowledge but about expectations toward the future based on knowledge of the past:

It is now 20 years since the Watergate crisis led to the resignation of President Nixon. Some people believe that the Watergate crisis *provided an important lesson for the future*. Others believe that the Watergate crisis may have been an important event in the past *but is not something to worry a lot about for the future*. Which of these two views is closer to your own?

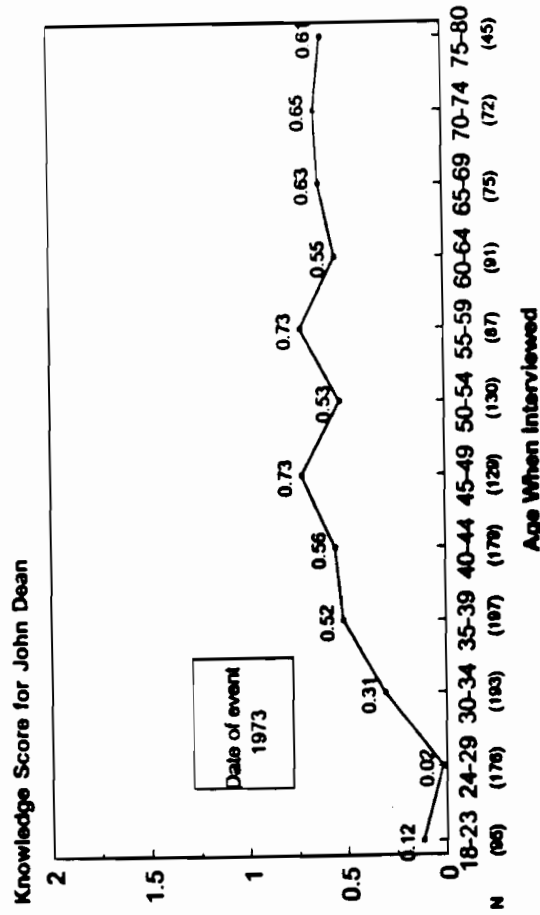
It was predicted that those who had lived through the Watergate crisis during their adolescence and early adulthood would be more likely than others to regard Watergate as providing a continuing important lesson for the future (here coded as 2), rather than as a one-time occurrence not requiring much worry for the future (here coded as 1). The question was included in SRC-93 over 5 consecutive months.

Although the variation by age is not great, Fig. 3.10 presents a relation generally consistent with prediction. Those most worried about a future Watergate-like event were 35–44 in 1993, or more broadly 35–54, which translate into ages 15–24, or 15–34 in 1973, the year taken as the height of the Watergate crisis. Logistic regression of expectations about a future Watergate on age, education, and age squared shows the quadratic term to be highly significant ($p < .001$), and other analyses show the effect to be centered on the predicted age categories. The result points to a subtle generational effect of the Watergate experience on the way that personal knowledge influences expectations, even though no direct evidence was found of the experience on information about Watergate through the standard knowledge question and coding.¹⁸

Other Original Events

The original set of words from the past in DAS-91 included two other events not yet discussed, neither of which shows a simple generational influence, though each has a special characteristic that makes it unique

¹⁸We also compared responses to the Watergate expectations question for those knowing who John Dean was and those not knowing, with age and education controlled. The first group showed significantly ($p < .05$) more worry about a future Watergate than the second.



Mean knowledge score: .46
linear(p): .06(.001) - .01(.001)

Source: SRC-93

FIG. 3.9. Knowledge of John Dean by age, with education controlled.

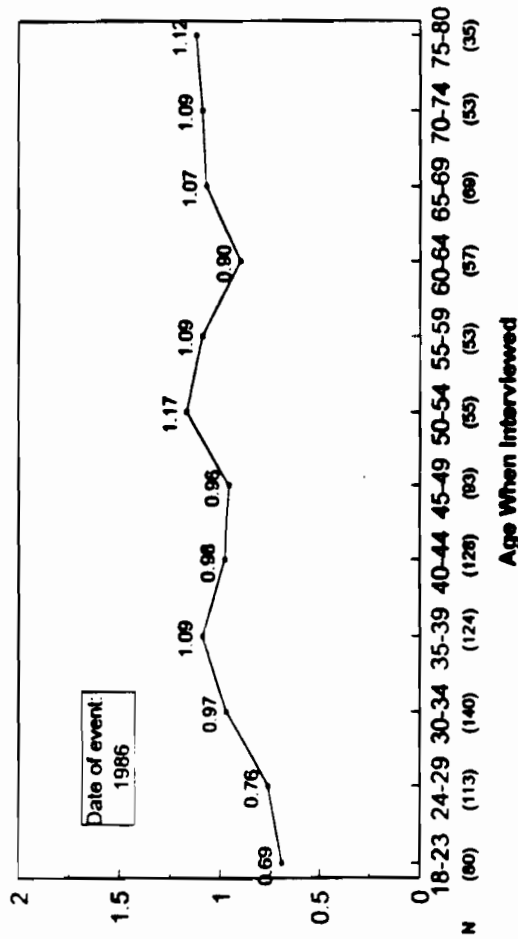
hint of something distinctive, but in general the figure is basically similar to that for Watergate. And because Watergate as a total event is still generally familiar, whereas Dean is much less so, it seems unlikely that the overall knowledge of an event by the public is crucial for its relation to generation.¹⁷ Reconciling the different results for Tet, Mylai, and Woodstock, on the one hand, and Watergate and John Dean, on the other, presents a challenge that is addressed later.

Watergate: Past and Future

Although knowledge of Watergate seems to be spread fairly evenly over all the cohorts that experienced it at the time, it seemed possible that the experience would have left a deeper impression on those who were passing through adolescence or early adulthood as the events of Watergate unfolded.

¹⁷There is a borderline interaction between gender and age for Dean ($p < .07$), which becomes more clearly significant ($p < .02$) when logistic regression is used with dichotomous coding. Men show the predicted curvilinear relation, whereas women show a more continuous monotonic increase with age. However, because a gender difference in this regard was not predicted, nor is easily interpreted, no great emphasis on it seems justified. Additionally, Watergate itself does not show such an interaction.

Knowledge Score for Christa McAuliffe



Mean knowledge score: .97
 linear(p): .03(.01); -.01(.05)

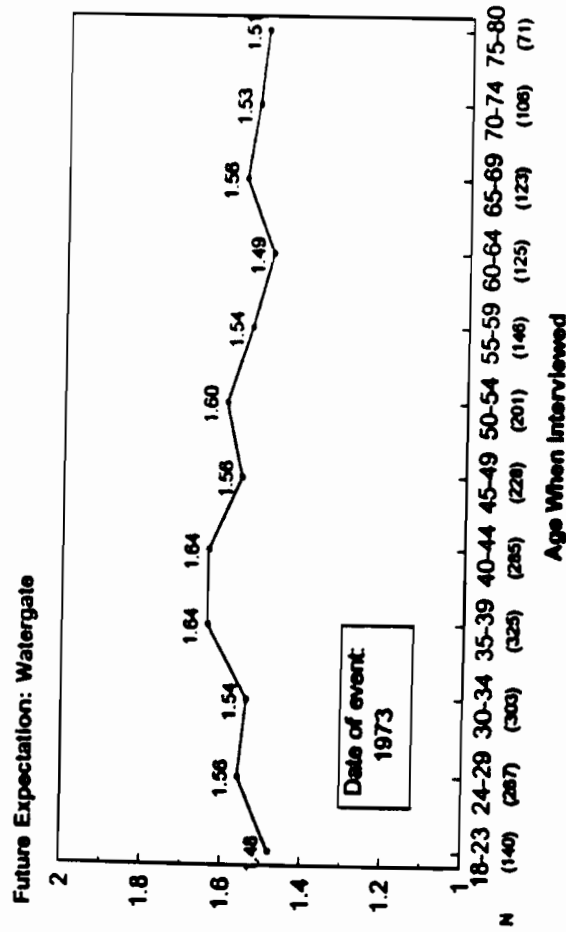
Source: DAS-91

FIG. 3.11. Knowledge of Christa McAuliffe by age, with education controlled.

the more knowledgeable. Evidently, a recent event does not necessarily produce the mirror image of an early event such as the WPA, though we should note that for 18- to 23-year-olds the level of knowledge of Christa McAuliffe is higher than their level of knowledge for most other events. There will be value in repeating this question in a decade or so to determine whether a different relation to cohort appears.¹⁹

The overall results for Christa McAuliffe for the total sample are not appreciably different within race and gender categories. However, gender does play a role as a main effect. As noted earlier, on a majority of the other words from the past, men are significantly more knowledgeable than women, with the largest differences involving military (Tet, Mylai) and political (Marshall Plan, Joe McCarthy) events. For Christa McAuliffe, and

¹⁹There is some added difficulty sampling from our youngest age category, because students living in college dormitories or at colleges outside the metropolitan region are not included in this DAS-91 area probability sample. One further complication for knowledge of Christa McAuliffe is a significant interaction between age and gender: For men there is no relation between knowledge and age, whereas for women there is a significant positive linear coefficient ($\beta = .05, p < .001$), with a sharp jump upward in knowledge for women 50 and older. Because this gender difference was neither predicted nor is easily interpretable, it has not been emphasized here.



Mean score: 1.57
 linear(p): .00(n.s.); -.003(.01)

Source: DAS-91

FIG. 3.10. Expectations about a future Watergate by age, with education controlled.

theoretically. Assuming that generational effects on knowledge can be regarded as having been established in at least certain instances, examination of these two events can be helpful in further understanding the nature and limits of such influence, as well as in providing complete coverage of all the tests carried out in the two surveys.

The most recent event asked about was symbolized by the name Christa McAuliffe, the schoolteacher who died in the explosion of the space shuttle Challenger in 1986. A strong interpretation of the Mannheim hypothesis might lead to a prediction that the name Christa McAuliffe would be best known to those in their 20s at the time of the survey, with decreasing knowledge from that age point onward to old age.¹⁹ However, Fig. 3.11 shows the youngest members of our sample as the least knowledgeable and a rather irregular pattern beyond age 29, with older people among

¹⁹Schuman and Scott (1989) provided 1985 data about spontaneous mentions of a then recent event (hostage taking) that would be consistent with such a conclusion. However, the number of mentions of hostage taking by young people in that report was very small, even though higher than for other age categories, whereas knowledge of Christa McAuliffe is much greater, so different proportions of the youth population are involved in the two different results.

Americans showing little variation by age. (The findings are unchanged when logistic regression is used with other codings of the knowledge scores.) Thus, there is evidence in this case that generational effects will be less sharp when a symbol continues to be recreated for a particular group, whereas for the less involved group generational effects provide a more important source of knowledge, though in this case not with the precision anticipated.

DISCUSSION

This study yielded three important results that need to be integrated. The simplest is that events from 50 or 60 years back are ordinarily best known by those adults alive at the time and are decreasingly well known by later generations. The prototype is knowledge of the WPA, which is very high among those who were in their late teens in the late 1930s, still somewhat known by the children of this cohort, and almost unknown to young people today. It is useful to document the extent to which knowledge of an important social event is dependent on age, and, in this extreme case, very little dependent on education. Many people remember "as if yesterday" something important from our own youth—whether the WPA, the Cuban missile crisis, or even the dismantling of the Berlin Wall—and it is difficult to keep firmly in mind that these same events may mean little or nothing to first-year college students or others of the same age.

Of course, the extent to which age alone is crucial depends on the nature of an event and the degree to which it is recreated for new generations. Despite concerns that have sometimes been expressed about lack of knowledge of the Holocaust by Americans, it is one of the best known events studied, no doubt because it has been repeatedly recalled and recreated in many forms. Even for the youngest people in our sample, knowledge of the Holocaust is roughly at the same level as for Watergate and exceeded only slightly by knowledge of Woodstock. To be sure, the vividness or "force" of such vicarious knowledge is less certain, and some evidence is provided that concern about a similar future occurrence is less strong for those who were not in their own youth during the early 1970s when Watergate occurred. The extent to which dramatic recreations, such as films, can match or conceivably even exceed what Mannheim (1928/1952) called experience "personally gained in real situations" (p. 296) is a question that deserves further investigation.

A second important result is much less intuitively obvious: There is persuasive evidence that adolescence and early adulthood constitute a critical period during which events can have a significantly greater impact on knowledge than they do for people beyond this period, as well as for

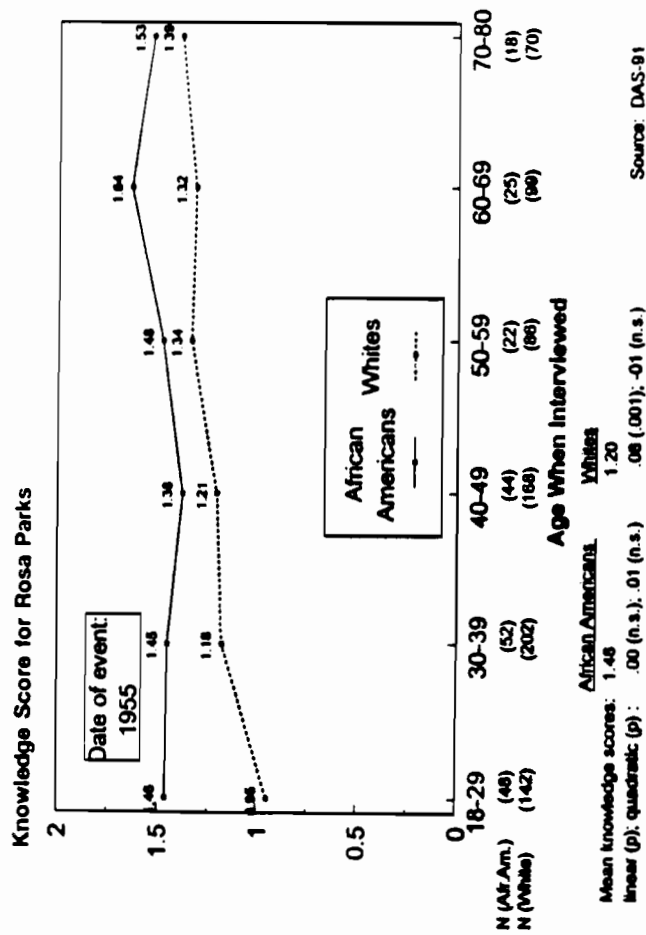


FIG. 3.12. Knowledge of Rosa Parks by age, with education controlled, separately for African Americans and Whites.

also for Rosa Parks, there is no difference by gender. An obvious interpretation is that when the subject is a woman, women are equally (though not more) knowledgeable than men. However, two other items (the Holocaust and Watergate) do not show greater male knowledge, which indicates that a more general explanation is needed.

It was expected and found that African Americans were more knowledgeable than Whites about the identity of Rosa Parks, though on all other items Whites score significantly higher than African Americans. For Rosa Parks, Fig. 3.12 shows the two racial subsamples separately (with six age categories to maximize sample size bases) because it was hypothesized that there would be a sharper positive age relation for Whites than for African Americans. For Whites, those born or reaching adolescence after the event should have lesser knowledge than those older, as is expected for other events, whereas for African Americans the continued teaching and remembrance of the civil rights struggle should keep the name Rosa Parks much more alive (as happened more generally with the Holocaust), and probably even more so in Detroit where Rosa Parks has continued to be somewhat active. The interaction shown in Fig. 3.12 is highly significant ($p < .001$), the linear trend for Whites equally so—though without a peak in the 1950s and early 1960s as would have been expected—and the relation for African

when Wellesley College alumnae were asked to report memories from their first college year, some 40% were from September of that year and of these more than a third were from the very first day at college.²¹ More generally, Robinson's review of this literature concludes that "memories of events clustered at the beginning of a novel and significant life period are maintained indefinitely in personal memory" (1992, p. 292).

Our later surveys included a small side investigation that demonstrates the great importance of adolescence and early adulthood in one sphere: preferences in music. Respondents were asked during 2 months in SRC-93 to "mention an event, a performer, or a style having to do with music over the past half century or so that you have especially liked," and this question was followed by: "How old were you when [that] first made an impression on you?" The findings are clear-cut. The median age of reported impression, irrespective of content, was 16 ($M = 19.2$), and although the age of impression increases slightly with the present age of the respondent (see Table 3.3), the more striking result is that all the median ages are quite young. Even those 75 to 80 years old in 1993 give a median age of 27 as their most impressionable point with regard to music. (For a similar study of musical tastes, see Smith, 1994.)

Furthermore, the content of the nominations is consistent with the self-reported impressionable ages. Those mentioning "the big bands" as the music they like best are now in their 60s; those mentioning the Beatles have a mean age of 40; and those mentioning "hard rock" and similar recent trends are currently age 30 on the average. More systematically, the correlation is $r = -.57$ ($p < .001$) between: (a) the mean ages in 1993 of the 376 respondents mentioning a particular performer, and (b) an independent estimate of the approximate year of the initial national fame of that same performer (e.g., 1941 for Frank Sinatra, 1955 for Elvis Presley, 1990 for Garth Brooks).²² Music may be an extreme case where tastes are especially established during the period of youth and rehearsed frequently thereafter, and thus where cohort effects are readily discovered, but it seems likely that a life stage so powerful for musical preferences carries some of the same implications for other areas of life. Our results for the

²¹One hundred and nine mentioned performers could be tracked in this way. The primary source for dates was Clarke (1990), which lists nearly 3,000 performers and related entries. For each entry, we took as the initial date of public notice either a general statement to that effect or the first mention of a record being in the top 10 nationally in its genre or more generally. (Coding of these dates was done without knowledge of respondent ages.) This was a conservative approach, because for long-time performers (e.g., Frank Sinatra), someone quite young might have learned of them recently and this would have lowered the average present age of respondents for that performer. A scattergram shows some tendency for wider variation in dates of selected performers by younger respondents, but the heteroscedasticity is not marked. (Acknowledgment is due to Jan Palmer for her help in conceptualizing and coding the music responses.)

people not yet born. Two events from the Vietnam War (the Tet Offensive and the Mylai massacre) and one cultural event from the same period (Woodstock) show such an effect. In order to understand these effects, it is useful to consider three parts of the age curve separately.

For young people today, lack of knowledge of events like the Tet Offensive can be readily explained in the same way as for earlier events like the WPA. Most members of cohorts presently in their teens and twenties had either never heard of Tet or Mylai in the first place, or if they had, the words had passed by so quickly that they did not stick. Youth of today were simply not around when the events happened, though in the case of Woodstock a fair amount of transmission by media and word of mouth evidently occurred.

A somewhat similar type of explanation can be adapted to understand older adults' relatively low knowledge of events that occurred when they were past 30 or so years old. Many of these adults can be regarded as having been "not around" psychologically or socially for Tet or Woodstock, just as they may not be focusing on some events occurring today. To take an extreme example, if one has no interest in popular music, then even the names of major stars in a particular year may not be noted or recognized. So it is suspected that the relatively low knowledge of Woodstock by many persons past 30 when Woodstock occurred was due to a failure to acquire knowledge in the first place. In addition, even if the event was briefly noted at the time, lack of interest would have led to little thought or conversation about it, an absence of "rehearsal," which in turn makes for poor retention of information over the years (Baddeley, 1990). To draw on words that T. S. Eliot wrote in *The Four Quartets*, they "had the experience but missed the meaning."

But why did those in their teens and 20s during the late 1960s pay closer attention to and remember events like Vietnam and Woodstock? There are two empirically confounded explanations difficult to separate with our data: a particular openness of youth to new experiences, as proposed by Mannheim and others, and "first experiences" per se at whatever age they occur. Leaving that distinction for future research, it does appear that the period of youth provides most people with a variety of new experiences, which in turn make for lasting memories both personal and political (Rubin, Wetzler, & Nebes, 1986; Schuman & Scott, 1989). More specifically, adolescence represents for most people the first time that the larger political and social world becomes clearly perceived, and whatever "big" event occurs at that time may loom large and be likely to be remembered as of special importance.

That first experiences constitute an important factor in what individuals learn and remember has been shown in past social psychological studies. For example, Pillemer, Gilmer, Goldsmith, Panter, and White (1988) found that

Knowledge Score for Tet Offensive

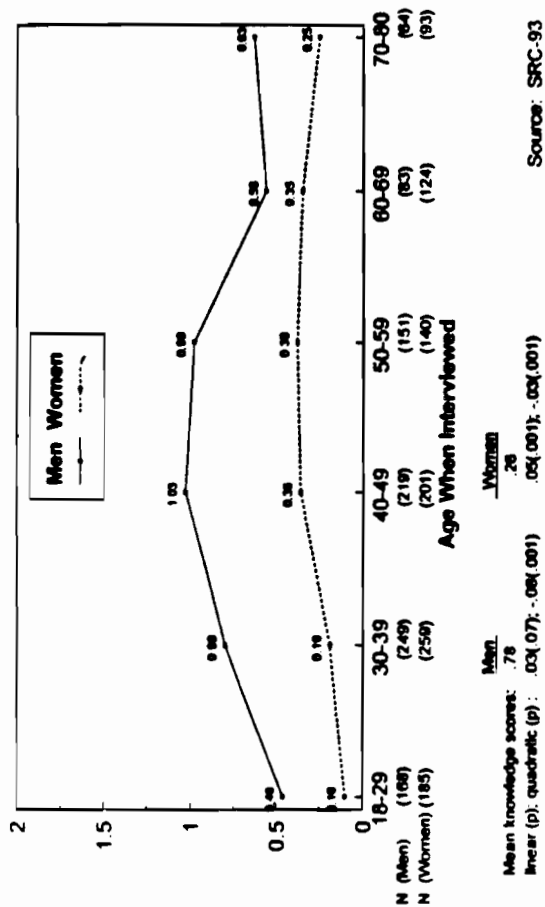


FIG. 3.13. Knowledge of the Tet Offensive by age, with education controlled, separately for men and women.

reasons, most older men beyond military age would have been less intensely concerned about Vietnam than men who were of or near draft age. Furthermore, for those individuals who came to maturity during the Vietnam War, this was the war to attend to, whereas for most older folks it was probably dwarfed by the importance of World War II (or for a slightly later cohort by the Korean War). Watergate, on the other hand, was not preceded by a similar event, and so constituted a striking new experience for all adults alive at the time. In sum, it was the distinctive meaning that the Vietnam War had for men in their youth that was crucial and that made events from it especially memorable to them.²³

If this explanation holds more generally, then the generational hypothesis about knowledge must be converted from one based entirely on assumptions about the life cycle to one that incorporates the Weberian principle (1956/1968) that subjective meaning is crucial to the connection between events and their effects. It is not just an automatic registering of events that occur during impressionable years, but the way events connect with the lives of real people. In some areas like music, or perhaps the arts

²³Much the same reasoning with regard to age can be extended to Woodstock, but not with regard to gender. It is supportive, therefore, that for Woodstock there is not a significant difference in quadratic coefficients for men and women like that in Fig. 3.13, and the difference in mean knowledge scores is also much smaller for Woodstock than for Tet.

TABLE 3.3
Median Age of Music Impression by Present Age

Present Age	Median Age of Impression	N
18-23	14	(57)
24-29	13	(92)
30-34	15	(102)
35-39	16	(121)
40-44	15	(103)
45-49	17	(88)
50-54	16	(66)
55-59	17	(57)
60-64	16	(36)
65-69	16	(44)
70-74	19	(37)
75-80	27	(26)

Tet offensive and the village of Mylai, as well as for Woodstock, point toward such broader influences connected to cohort.

However, a third important result from the study is the failure to find distinctive generational effects for knowledge of Watergate and of John Dean, despite much analytic effort in that direction. These negative—and probably ineluctable—results indicate that a purely mechanical approach to cohort effects on knowledge is inadequate. Apparently not every event has a uniquely lasting effect on adolescents and young adults, for in the case of Watergate, people who were well past their youth in the early 1970s are as knowledgeable as those who were in their teens and 20s at the time. Nor can this be attributed to a kind of ceiling effect that prevents finer discrimination, or to continued recital or replaying of the Watergate events, for the same negative finding holds for knowledge of John Dean, now a forgotten figure for most Americans.

A clue to reconciling both the findings and the losings about cohort effects on knowledge lies in Fig. 3.13, which presents the earlier data on knowledge of the Tet offensive separately for men and women.²³ Two strong (and highly significant) differences are visible: First, men are much more knowledgeable about Tet and, second, the shape of the curve for men is much closer to the one hypothesized on the basis of generational assumptions. Both differences may be due to the greater interest of young men in military matters, but perhaps even more, to the fact that men in the peak ages shown in Fig. 3.13 were those most threatened by or attracted to personal involvement in the Vietnam War. Few women would have experienced Vietnam in quite the same highly personal way. For similar

²³The larger SRC-93 sample is used here, but similar results appear in the DAS-91 data and also in the SRC-95 data on the village of Mylai.

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more generally, the connection is easily, almost inevitably made as these pursuits are discovered during adolescence; but with larger political and social happenings, the nature of the events themselves must create the connection of meaning. This research therefore neither confirms nor denies the curvilinear hypothesis about youth, but transforms it in a crucial respect.

Beyond the ideas and evidence presented here, there is the possibility of further generalization to the conditions that stimulate knowledge of other kinds. As elite interpretations of the more distant past change (e.g., of the impact of Christopher Columbus on Native Americans), cohorts growing up are likely to incorporate the new beliefs as part of their common sense assumptions about early American history. Furthermore, "first experiences" are likely to be a significant source not only of knowledge of history, but of personal knowledge and personal expectations more generally. Anecdotal evidence suggests that the first social science books students read, whether Emile Durkheim's *Suicide* or Peter Berger's *Invitation to Sociology*, make an impression seldom matched by later reading. The same should be equally true in other fields and other areas of knowledge as well. This speculation goes well beyond the data presented here, but it raises questions that deserve further exploration as an attempt is made to understand not only the generational basis of historical knowledge, but generational contributions to knowledge of all kinds.

ACKNOWLEDGMENTS

The research reported here benefited greatly from the ideas and commitment of Cheryl Rieger. Important help was also received from Charlotte Seech, Director of the 1991 Detroit Area Study, and from the students who took part in that practicum. Acknowledgment is due also to the technical section staffs of the Survey Research Center. Support for the research came primarily from a grant from the National Institute of Aging (AG08951), with earlier support from the National Science Foundation (SES-8410078) and from the University of Michigan.

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