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Collective Knowledge of Public Events: The Soviet Era from the Great Purge to Glasnost¹

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We explore the knowledge of a probability sample of Russians in 1994 about nine events that occurred within the past 60 years. We consider three competing hypotheses about how knowledge relates to age: (1) adolescence and early adulthood constitute a critical age for acquiring knowledge of public events; (2) the unique content of an event creates age relations; (3) the primary influence on knowledge is a period effect. We also hypothesize that “years of education” has two different meanings in relation to knowledge: one about socialization that promotes state-approved images of the past, and the other about development of a cognitive sophistication that challenges such images. Partial support for each hypothesis is reported. The relation of collective knowledge to collective memory is also considered.

For all of us there is a twilight zone between history and memory; between the past as a generalized record which is open to relatively dispassionate inspection and the past as a remembered part of, or background to, our own life.

(Hobsbawm 1987, p. 3)

We investigate what ordinary Russians know about a number of events that occurred in their country over six decades, from the Great Purge in the late 1930s to the beginning of glasnost (“openness”) in the 1980s. Some

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of the events reflect positively on Soviet history (e.g., launching the first space satellites), others negatively (e.g., the Great Purge itself), and together they offer some sense of what Russians of different ages and social backgrounds know as they “discuss, debate, and negotiate the past and, through this process, define the future” (Gillis 1994, p. 20). Because our concern is with knowledge that is shared by substantial parts of a population, we refer to it as “collective knowledge,” and because the knowledge consists of memories of events (whether directly experienced or learned about from others), we regard it as falling under the general concept of collective memory.

Theoretically, we explore the influence of two primary sources of knowledge of past public events: cohort experience and education. More specifically, we test three competing hypotheses about cohort effects: one that stresses the importance of adolescence and early adulthood as a critical life stage for learning about events; one that focuses on how the unique content of an event can stimulate learning at a particular age; and one that considers period effects on learning that can extend over almost the entire age range of a population experiencing an event, though not those born later. We test the effects of education by distinguishing the direct socializing influence of schooling from the increased cognitive sophistication that is often associated with advanced educational attainment.

Our approach differs from a cultural orientation to collective memory that is based on evidence about past events gleaned from documents, institutions, or pronouncements by elites, and also from a purely psychological approach that assumes fixed developmental stages during which knowledge is acquired. We begin by acknowledging the first of these differences, and then proceed to state hypotheses that include but go beyond developmental assumptions.

TWO WAYS OF THINKING ABOUT COLLECTIVE MEMORY

The Cultural Level

Sociologists interested in collective memory in large and complex societies have usually moved in one of two directions. The more frequent direction is to investigate in depth particular cultural symbols, including use of such symbols by those in positions of power. A valuable study of this type is Schwartz's (1996, 1998) account of how collective memories of Abraham Lincoln were used during World War II by the president and other political and cultural leaders to provide legitimization, orientation, clarification, and inspiration for the war effort. Schwartz recognizes that his evidence comes entirely from statements at the level of elites, but suggests that since “these image-makers were socialized by the communities they endeavored to reach, . . . their depictions reflected as well as shaped their audience's

conception of Lincoln" (1996, p. 912). It is possible, however, that the aspects of Lincoln drawn on were uniquely appealing to the elites themselves, as Converse (1987) indicates when considering the political effects of memories of the Vietnam War. The elites may simply have projected what was especially meaningful to themselves on to the general public (Fields and Schuman 1976; see Rieder [1994] on political speeches generally).

Although Schwartz is sensitive to the issue of how much the "collective memories" vocalized by leaders actually resonate with the public, his primary interest in these articles is in collective symbols as part of culture. Consistent with this theoretical perspective, much of the literature on collective memory is devoted to "publicly available symbols and meaning systems not reducible to what is in people's heads" (Jeffrey Olick, personal communication, 1998; see Swidler and Ardit [1994] for a similar view). This emphasis clearly applies to the massive undertaking by Nora (1996–98) to study French *lieux de mémoire*, as well as to much other recent writing on collective memory, for example, Irwin-Zarecka (1994), Sturkin (1997), and in large part Schudson (1992).²

Collective Memory at the Individual Level

A different direction for studies of collective memory is to focus directly on memories of past events that are shared to a greater or lesser extent by the individuals who constitute a representative sample of a larger population, insofar as this can be done through interviewing or in other ways. Although this approach is less frequently pursued in sociology than is cultural analysis, it is closer in spirit to that conceptualized by Halbwachs ([1950] 1980), the sociologist most responsible for introducing the term "collective memory" (Olick and Robbins 1998). For Halbwachs the term referred to the actual memories shared by members of real groups, such as families—memories that remain alive only so long as the group itself survives. He also included broader groups as carriers of collective memories—in an earlier book he wrote that "the well-linked traditions and remembrances" of the nobility have "for a long time been the chief upholder of collective memory" ([1925] 1992, p. 128)—and he even allowed for the possibility of "events of national import that simultaneously alter the lives of all citizens" (1980, p. 77). Thus it is reasonable to assume that Halbwachs might have included the shared memories of a traumatic national event like the Great Purge as a part of the collective memory of many

² Also related to collective memory at the cultural level is research on museums, historical societies, and other institutions that construe the past (e.g., Barthel 1996).

Russians who lived through that period and perhaps also of the descendants to whom those memories were communicated. Of course, this leaves open the question of how much such sharing there actually was, a question our data will address directly.

Using a national survey, Schuman and Scott (1989) asked a cross-section sample of Americans in 1985 to mention two national or world events or changes over the past 50 years that "seem to you to have been especially important." Who mentioned which events in response to this open-ended question was then studied in relation to cohort, education, and other social background variables. Subsequently Scott and Zac (1993) and Schuman, Akiyama, and Knäuper (1998) employed the same approach, the former using data from Britain and the latter data from Germany and Japan. Other sociologists have started from lists of past events; for example, Roberts and Lang (1985) asked a sample of Woodrow Wilson fellows to check off from a list of 26 events those that they "vividly remembered," and Lang et al. (1993) used a similar procedure with a sample of German journalists.³

Starting from this focus on the reported memories of individuals, two independent streams of research have converged to point to adolescence and early adulthood as a "critical age" or "critical period" in the life course, when events have their greatest impact on memory.⁴ Within sociology, Mannheim's ([1928] 1952) classic essay proposing a broad set of generational effects that originate at that stage in the life course has been drawn on by a number of studies of memory for public events. The research noted above by Schuman and his colleagues, by the Langs, and by Jennings (1996) all provide support for a specification of Mannheim's ideas in terms of memories, though the Langs are more qualified in their conclusions than are the others.⁵ This research can also be seen as offering a

³ Seldom attempted but clearly desirable is research that traces systematically how symbols seen to be long-lasting parts of culture grow out of and are sustained by individual memories and how individual memories are initially and continuously shaped by cultural symbols. The theoretical literature on the new institutionalism (Brinton and Nee 1998) calls for making these connections, and Greif (1998) presents a relevant example within that context. Such research is probably most easily done as part of ethnographic investigations of relatively homogeneous communities, for example, small mining towns with a history of conflict-filled strikes (Fentress and Wickham 1992), where the focus can be on the emergence of a more or less unitary collective memory out of negotiations among many individual memories (Zelizer 1995).

⁴ We will use the term "critical age," rather than "critical period," in order to minimize confusion with the term "period effects," which is also important to our analysis.

⁵ In addition to using quite specialized samples, the checklist approach taken by Kurt Lang, Gladys Lang, and their colleagues (Lang and Lang 1978, 1990; Lang et al. 1993) may be somewhat less effective in identifying memories than open-ended questioning that requires respondents to produce the memories themselves. See Schuman and

solution to what Nora (1996, p. 505) regards as the “insoluble . . . uncertainties” that arise in attempting to identify a concrete “generation,” for a generation can be demarcated by identifying the distinctive memories its members share based on what happened during their adolescence and early adulthood. One starts with memories and works backwards rather than forward from generations, as was the traditional approach taken by Mannheim and his predecessors (Jaeger [1977] 1985).

At about the same time that these developments were occurring in sociology, several cognitive psychologists who were carrying out laboratory experiments on memory discovered a quite similar phenomenon that they variously called the “reminiscence bump,” “peak,” or “surge”—that is, memories of personal life events tended to go back to adolescence and early adulthood. This work was not stimulated by knowledge of Mannheim or of other sociological writing, but began as a series of studies of autobiographical memories produced in response to word associations. The first investigators—Fitzgerald and Lawrence (1984) and Rubin, Wetzler, and Nebes (1986)—expected to find monotonic relations pointing to recency of occurrence as the prime determinant of memories. They were surprised to discover that, apart from quite recent memories (essentially the most recent year), the teens and twenties constituted the period in life that yielded the largest number of memories. Subsequently these results have been shown to be replicable with Japanese subjects and to include memories of public as well as personal events. In addition, much the same “critical age” emerged for other forms of memory. For example, Larson (1996) in a small study finds that books mentioned as having provided a particularly memorable reading experience produce a somewhat similar relation to age, with the twenties and thirties identified as modal. Mackavey, Malley, and Stewart (1991) analyzed chapter-long autobiographies of 49 eminent psychologists for autobiographically consequential experiences and found that events from ages 18 to 35 had many more explicit reports of emotion than did references to surrounding periods. Pennebaker and Banasik (1997) have connected the timing of later monument construction to the critical age of cohorts when the events commemorated first occurred. Rubin, Rahhal, and Poon (1998) review a large number of studies that lead them to conclude that “adolescence and early adulthood are special times for memory encoding” (p. 3).

Both psychologists and sociologists have recently added objectively assessed knowledge of the past as another form of memory that may be strongest for events that occur during adolescence and early adulthood. Using convenience samples, Rubin, Rahhal, and Poon (1998) report that

Scott (1987) for a comparison of open- and closed-ended approaches to obtaining memories.

knowledge of the Academy Awards, the World Series, and various current events is more accurate when the critical age is involved than when events are drawn from other periods of life. At the same time, Jennings (1996) and Schuman, Belli, and Bischooping (1997) have begun to explore knowledge in probability samples of Americans.

It is this last type of investigation, collective knowledge of public events, that we develop further, both theoretically and empirically, by applying it to a large national sample from the Russian Federation in 1994. Some 2,400 respondents were asked to identify in their own words a set of events that we presented to them. The events had occurred during the half century preceding the dissolution of the Soviet Union at the end of 1991, which transformed the political and social world of all Russians. Our conclusions from the investigation turn out to be substantially different than we initially expected: to contradict T. S. Eliot (1943), our end was not in our beginning.

HYPOTHESES

We test three primary hypotheses about age-related effects on knowledge. For any particular effect, ideally only one hypothesis should account best for the data, but where there appear to be quite different effects, more than a single process may have occurred. Thus the three hypotheses are competitive but not mutually exclusive. We also test one general hypothesis about the effects of education on knowledge. Throughout, the knowledge we deal with is of past public events.

Hypothesis 1: The Importance of a Critical Age for Collective Knowledge

Our data provide a further test of what might be called Mannheim's (1952) "strong hypothesis" about generational effects, namely, that "youth," defined as adolescence and early adulthood, constitutes the "critical age" during which public events are likely to have their greatest impact and therefore to be remembered best in later years.⁶ Mannheim relied in his reasoning on what would now be called "primacy effects": the first encounter with the larger political world defines what is important for naive individuals, whereas later events are assimilated to experiences from the past and are therefore not likely to have as great an impact (see also Ryder 1965). Furthermore, Mannheim believed that first encounters

⁶ "Other things equal" must always be added, since some knowledge of major events like World War II is likely to be obtained by almost everyone. In most cases, our hypotheses are tested within events, not across events.

with national and world events most often occur during adolescence and early adulthood as individuals begin to experience the larger world beyond their own family and neighborhood. His interest was primarily in political beliefs and values, but there is one passage directly relevant to our concern with knowledge: "I only possess those 'memories' that I have created 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" (Mannheim 1952, p. 296).

We add two qualifications to the typically general statements about the importance of a critical age. First, it seems likely that the duration of an event will determine how clear a cohort effect we find.⁷ Events can be discrete, like shooting stars, appearing suddenly to the eye of the public, then vanishing from public attention after a short period. Such events should produce relatively clear-cut cohort effects, since their impact should be mainly on an especially impressionable age range among those alive at the time and should be least known to cohorts that appear after the event is over. Less distinct cohort effects should occur for events that extend over many years and affect successive cohorts; such effects will therefore be difficult to distinguish from period effects. Less visible cohort effects might also occur for an event that stimulates continuous attention through one form or another of public commemoration—"the evaluative aspect of chronicling," as Schwartz puts it (1982, p. 377)—and also for an event that resonates in the public mind with other earlier or later events, as in the series of "-gate" scandals that draw their connotative effect from the original incidents of "Watergate" (Schudson 1989; 1992). (Four of our events have a conceptual and historical association with the Great Purge of the 1930s and we will bear this in mind when they are considered.) Yet even in these long-lasting cases, the precise information available about the event may shift over time, and therefore the content of knowledge may vary in subtle ways that yield evidence of a cohort-specific effect. Wherever possible we have tried to examine more detailed elements of event content.

Second, we need to clarify the span of the supposed critical age and its relation to the nature of events. Mannheim (1952, p. 300) conceived of the critical age as ranging from about 17 to 25, but since this was based on his subjective impressions of Germany in the early 20th century, few would expect exactly the same boundaries to hold in other countries or at other times. Schuman and Scott (1981, p. 377) refer to the "teens or

⁷ English and other European languages we have checked have not developed distinct words for events varying in duration. Pearl Harbor, which happened in a single day, is called an event, but so is World War II termed an event, though it extended over several years and consisted of many separate events like Pearl Harbor.

early twenties," Rubin et al. (1998) extend the range to 10–30, Lang and Lang (1978) speak of the "formative years," and Nora (1996) cites still other demarcations. Recently Holmes and Conway (1999) have drawn on Erikson's (1950) discussion of developmental stages to predict that memories for *public* events should be concentrated in the period when respondents were ages 10–19 (roughly the stage of identity formation) and that memories for *personal* events should refer primarily to the time when respondents were ages 20–29 years (Erikson's stage of intimacy vs. isolation). However, it is important to recognize that some public events have a simple and dramatic nature that can be appreciated even by small children (e.g., Schwartz's [1999] account of his experience during World War II). Other events are abstract and complex and probably meaningful only to individuals beyond adolescence. Thus the concept of a critical age may need to be amended to recognize that different events are likely to interest different ages and therefore to show somewhat different cohort effects at a later point in time.⁸ Indeed, for some of the events that we included, learning may even fall outside the critical age as ordinarily defined, and this leads to our second hypothesis, a more radical departure from an exclusive focus on adolescence and early adulthood as a critical developmental stage.

Hypothesis 2: The Importance of Event Content for Collective Knowledge

Much of the literature on cohort effects assumes implicitly that all individuals in a particular cohort will react in much the same way to a public event, and thus treats as more or less random error the considerable number of people who do not fit the modal pattern. Yet a convincing example of specificity within a critical age is reported by Firebaugh and Chen (1995): clear cohort effects on voting occurred for women as a function of the Nineteenth Amendment, but little or no effect was evident for men. Although a gender difference in cohort effects may not seem remarkable

⁸ Research soon after President Kennedy's assassination suggested that quite young children at the time could be affected (Sigel 1965), and Lang and Lang (1983) provide evidence that the same was true to some extent for the events making up Watergate. Whether such immediate involvement at a young age is reflected in later memory is less certain. Schuman and Scott (1989) found that memories of the Kennedy assassination reported by those eight to 12 years old in 1963 were considerably less frequent than reports by those who had been in their teens and even later twenties at the time. Consistent with this result, Greenstein (1965, p. 1) emphasizes the great change that takes place in political awareness between ages nine and 13. More generally, the extensive literature on political socialization deals more often with party identification than with memories for political events, though recently Sears and Valentino (1997) have studied the effects on preadult learning of events that occurred during a particular presidential campaign.

in this case, which is also not one specifically involving memory, it challenges the notion of indiscriminating impressionability regarding national events and points up the importance of event content to particular age-gender interactions and perhaps to other combinations of variables as well.

Even more directly to the point, Schuman et al. (1997) found that men who had been in their early twenties during the late 1960s showed significantly greater knowledge of the 1968 Tet Offensive than did *either* women or older men, and Jennings (1996) reports a similar Vietnam-related finding. A quite plausible interpretation is that in the late 1960s, young men were likely to pay closer attention to events in Vietnam than were either women or older men, because it was young men who faced the prospect of being drafted to fight in that war. In support of this interpretation, knowledge about the 1969 Woodstock rock music festival, an event which did *not* differ in implications for young men and young women, showed a similar cohort effect to Tet but *not* a cohort-gender interaction.

To state the second hypothesis in a competitive form, what appears to be a cohort effect based on a critical age may be due not to a generalized openness at a particular developmental stage, but to an age-related receptivity to the unique content of a particular event. Further, such effects may occur differentially within a cohort, with greater impact on one gender or on one educational level or on those characterized by some other background attribute.

Hypothesis 3: The Importance of Period Effects for Collective Knowledge

The main competitor to *either* type of cohort effect discussed thus far is the possibility that the impact of some events may be so wide that no single cohort, defined in terms of a small number of birth years, develops appreciably greater knowledge than another. In that case, we could find a period effect on all or almost all cohorts alive at the time of the event: they all would be more knowledgeable than cohorts born after the event had ended. Indeed, the term "generation" was once used in this sense, as when Jefferson and other American Founders spoke of the responsibilities of the "living generation" (Peterson 1977). Such a broad period effect should occur for an event that is so unusual as to be novel and of equal interest to just about all ages. This may account for why, despite considerable effort, Schuman et al. (1997) could not locate a cohort effect for knowledge of the events falling under the rubric of "Watergate."

Can this reasoning be pushed still further to suggest that for an event well documented on film or videotape (e.g., the Kennedy assassination in 1963), even those born well after the event has ended are likely to become as knowledgeable about it as those alive when it happened? "Experienc-

ing" a public event, as Zerubavel (1997, pp. 89–92) notes, seldom means direct personal involvement, and most Americans who were adults at the time of the Kennedy assassination experienced it only through television and other media reports, not so very different from those who learn about it through dramatic media documentaries today. Yet even where the medium of learning is the same (notably, television), contemporaneous and later experiences do differ importantly in that the outcome of an event is uncertain in the contemporaneous case but not in the historical case, with greater emotional intensity likely in the former as well. When President Kennedy was killed there were immediate pressing questions about both the cause of the assassination and its consequences for governing. "Especially in the face of a catastrophe, there is an urge to surrender to the most extreme foreshadowing imaginable" (Bernstein 1994, p. 9). But a replay of the same events at a later point, no matter how vividly presented, does not raise the same urgent questions and thus is not likely to have the same long-term impact on knowledge. In addition, an ongoing event stimulates conversations with others ("rehearsals") that also enhance memory (Brown and Kulik 1977). Thus we hypothesize that for events that have captured public attention broadly, those alive at the time will have acquired and will retain greater knowledge than those who came afterwards, no matter how much the latter are exposed to the history of the event.

Hypothesis 4: Educational Attainment and Collective Knowledge

Education is the most important factor that acts to limit pure generational effects of all kinds, since it allows ordinary citizens to learn about events that occurred not only before their adolescence but even before they were born. It is thus hardly necessary to hypothesize that knowledge of the past will be partly a function of education, for that is so well established that it needs no replication (see Delli Carpini and Keeter [1996] for recent documentation). For this reason and because education is inversely related to age in our Russian data ($r = .41$; $N = 2421$), we include years of education as a control throughout our analysis. However, we also propose that "years of education" can have at least two different meanings, especially for the Soviet era, and that these two meanings point to different levels of association with different kinds of events.

For events that were simple, favorable to the reputation of the Soviet regime, and taught in a uniform way through the schools and the mass media, we hypothesize relatively *low* correlations between years of schooling and knowledge. Most people will have obtained basic information about the event by an early age, and therefore more years of media or school exposure will not add much beyond that. However, knowledge of events unfavorable to the regime and excluded from discussion in state-

controlled media and schools will have been most available to those with advanced education. In the Soviet Union, much more than the United States, access to alternative sources of ideas was a privilege that often accompanied higher education and associated occupations. Furthermore, well-educated individuals learned to read between the lines of state-controlled pronouncements and to seek unofficial (including underground) sources of information (Inkeles and Bauer 1959; Zimmerman 1987). Hence years of education should be related more strongly to knowledge of topics that were unfavorable to the regime and were suppressed than to those topics that were openly taught.⁹ More generally, these opposite predictions about the role of education imply a negative correlation between the extent to which events are known by the population as a whole and the size of the associations of knowledge with years of schooling.

For our study we also obtained two other social background variables expected to have some association with knowledge: gender and urban/rural location. Location is potentially important because in Russia substantial differences in access to information exist between persons in major cities and those in the countryside, and gender has often been shown in other studies to be related to knowledge (Delli Carpini and Keeter 1996). We include both variables as controls throughout and in addition examine the interactions of each with age. Finally, we draw, at important points, on evidence from Soviet magazines and newspapers, although there is not available for Russia the kind of documentation of past radio and television content that exists for the United States.

METHOD OF STUDY

Our data come from a 1994 survey carried out in European Russia (Russia west of the Urals), which comprises nearly three-quarters of the total Russian population.¹⁰ The knowledge of this cross-section sample ($N = 2,421$) was explored by asking in Russian about 11 past events:

⁹ In the United States education is no doubt also more highly related to knowledge of esoteric than to simple events, but the Soviet situation was more extreme, since many events were greatly distorted or concealed entirely from the general public. For example, when the United States won the hard-fought competition to be first in landing a man on the moon, there was only a brief mention of the American achievement on the Soviet nightly news, following such items as a salute to Soviet metalworkers. Access to direct televised coverage of the moon landing, which was available in many parts of the world, was limited in the Soviet Union to the party, military, and scientific elite (Bill Keller, *New York Times Magazine*, June 27, 1999, p. 61).

¹⁰ Five-sixths of the sample is Russian by nationality, so for simplicity we refer to "Russians" throughout, although the sample was designed to represent the entire population and includes other nationality groups. We found no important effects of ethnicity/nationality on knowledge, and therefore do not include it as a variable in our analyses, except for omitting Jews when dealing with anti-Semitism.

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 events were read one at a time, and the respondent's answer to each was recorded verbatim so far as possible. The events are shown in chronological order in table 1, with the date listed being the initial point each was available to public attention, though they differ greatly in the degree to which they were salient over a number of years. We had pretested a total of 34 events, chosen with several criteria in mind: to sample events that were both positive and negative in implications for the Soviet regime, both political and cultural, well distributed over time, and that might have appealed to Russians with different age and other demographic characteristics. Then, after pretesting, and constrained by the space available to us in the larger survey, we eliminated those events known to too few or too many respondents to provide sufficient variation for analysis or that presented other problems for interviewing.¹¹ Any selection of events must be somewhat arbitrary, but our choices were made in an effort to sample widely from the Soviet past and of course without knowledge of eventual results. Nine of the 11 events are considered in detail in this article.¹²

¹¹ A memo providing a description of the pretesting and the reasons for event selections can be obtained by writing either of the authors. The 23 events pretested but not included in the final survey were: Collectivization, Valerii Chkalov, Sergei Kirov, German-Soviet Pact, Katyn Massacre, Battle of Stalingrad, Lavrentii Beria, *Sputnik 1*, Yurii Gagarin, Twenty-second CPSU Congress, Valentina Tereshkova, Vladimir Vysotskii, Sinyavskii-Daniel trial, Baikal-Amur Mainline, *Soyuz-Apollo*, Afghan veterans, Andrei Sakharov, Chernobyl, *It Isn't Easy to Be Young*, Nina Andreeva, Vilnius TV Center, GKChP (State Committee on the State of Emergency during the 1991 coup), Belovezhskaia Pushcha Accord. (Twelve other events were considered but not pretested because they duplicated in name or date an event already on the list.)

¹² We included in the final survey the names of two Soviet films from the later 1980s—*Repentance* and *Little Vera*—but omit them from this article, first because they are products of the glasnost era and second in order to reduce the complexity of our presentation. *Little Vera*, shown first in 1988, is a film about adolescent rebellion, with sexual content unusually explicit by Soviet standards. It is known especially to younger Russians. The 1987 film *Repentance* (a complex allegorical critique of the Stalin era) shows somewhat more knowledge by middle-aged Russians than by other ages, consistent with an interpretation in terms of its complexity and its resonance with earlier events. Remnick (1993) devotes five pages to *Repentance* because of its political importance as a sign of increasing openness about Stalinism, but only a passing sentence to *Little Vera*. Yet *Little Vera* is known to three-quarters of our Russian sample, *Repentance* to only one-quarter. This does not mean that Russians will mention events such as *Little Vera* when the question calls for using "importance" as a touchstone (see Rieger 1995), but knowledge qua knowledge is a precondition for other forms of memory, since respondents cannot recall as important an event they know nothing about.

TABLE 1
EVENTS FROM THE SOVIET PAST: DISTRIBUTION OF KNOWLEDGE SCORES*

EVENT	DATE	KNOWLEDGE SCORES				Total	EXAMPLE OF SCORE OF 2	WEIGHTED SCORE†
		0	1	2	2			
Yezhovshchina	1937	49	45	6	100	"In 1937 they arrested and shot innocent people."	57	
Doctors' Plot	1953	69	20	11	100	"That was the arrest of doctors just before Stalin's death."	42	
Virgin Lands Campaign	1954	22	72	6	100	"The campaign was about opening up the land in Kazakhstan."	84	
Twentieth Congress of the CPSU	1956	71	11	18	100	"Stalin's cult of personality was exposed at that congress."	47	
Laika	1957	52	6	42	100	"It was the first dog in space, before Gagarin's flight."	90	
Cuban Missile Crisis	1962	78	9	13	100	"In Cuba, the Khrushchev-Kennedy clash—we in-stalled missiles there."	35	
<i>One Day in the Life of Ivan Denisovich</i>	1962	82	5	13	100	"The book describes life in the gulag."	31	
Prague Spring	1968	76	17	7	100	"They put down Dubcek's movement."	31	
Katya Lycheva	1986	76	17	6	100	"A Young Pioneer girl was in the USA on a mission of peace."	29	

* Based on respondents ages 18 and older, weighted by age, education, sex, and urban/rural location (Moscow, St. Petersburg, other urban areas, rural areas) to match proportions for the population sampled. The base *N* is 2,421 for each event. Scores are percentages.

† Sum of percentages, each weighted by its scoring category (0, 1, and 2).

Respondent accounts of each event were scored “2” if coded as correct, “1” if partly correct, and “0” if incorrect, as shown in table 1.¹³ In addition, an overall weighted score is provided for each event: the sum of the percentages given each score is weighted by its scoring category (0, 1, and 2). The distinction between correct and partly correct is sometimes difficult to make and is even more difficult to hold constant in meaning across items. However, the distinction of *both* degrees of correctness from incorrect (zero) responses is usually quite clear, and so we also draw on nonzero scores as an overall measure of knowledge.¹⁴ The two indicators of knowledge—weighted scores and nonzero scores—are substantially related ($r = .87$); however, there are some noticeable differences for particular items, and we take account of both measures when considering variations in knowledge of events.

Sample and Coding

The survey that included our knowledge questions was carried out by the Moscow-based organization Russian Public Opinion and Market Research (ROMIR), using face-to-face interviews with a multistage stratified probability sample of European Russia, ages 18 and older.¹⁵ ROMIR employed oversampling of Moscow and St. Petersburg, but we use weighting in table 1 to reflect the cities’ correct proportions in the total population. In all other analysis, unweighted data are used but a control for location is always included.¹⁶

¹³ Our scoring was factual, not evaluative. Two respondents received the same score if they gave similar accounts of an event, even though one used positive language and one negative language. A memo describing our coding rules in detail can be obtained by writing either of the authors.

¹⁴ Zero scores consist largely of don’t know (DK) responses—more than 80% for seven of the events, 76% for the Twentieth Party Congress, and 66% for the Virgin Lands Campaign. The correlation between zero scores and their DK component considered alone is .97 over the nine events, and thus when referring to zero scores we are essentially dealing with DK answers and the coding is unambiguous.

¹⁵ ROMIR also included 15–17-year-olds, but for our analysis we limit the sample to persons age 18 and older, since education is an important variable and the educational levels of the relatively small number of respondents under 18 are seriously misleading; the subsample is also small (70 cases) for separate analysis. Because of this omission, plus the loss of nine cases due to lack of data on education or to other problems, the original ROMIR sample size of 2,500 is reduced to 2,421 for our analysis.

¹⁶ The response rate for the study was 75.8%, and checks were made during the field period to attempt to ensure the integrity of the interviewing, including observation by one of the authors of a small randomly selected set of interviews in both urban and rural areas. Comparison of the survey results for age, gender, education, and urban-rural residence with the 1989 census of Russia shows generally good correspondence, with about 5% underrepresentation of men and a somewhat greater underrepresentation of the least educated—sources of bias common in U.S. surveys also—which we reduce by weighting in table 1 and by including control variables in later

Initial scoring of answers for correctness was done in Moscow by ROMIR with our advice, but a representative subsample of 96 responses to each item was later translated and recoded by one of the authors fluent in Russian. We found the original coding to have been done well and reliably, and changes in scoring that we made for three events had no effect on results. Moreover, in two cases (the Twentieth Congress of the Communist Party of the Soviet Union [CPSU] and the Prague Spring) where we tried a more refined scoring along a five-point scale of correctness, conclusions were essentially the same as for the trichotomous scoring. Therefore, we concentrated our additional coding on other aspects of knowledge about the events, and these codes will be introduced to test specific hypotheses as we proceed. Each of the additional codes had agreement between two independent coders of at least 85%.

Analysis

We carried out a multiple classification analysis (MCA) of the nine knowledge scores (0–2) for each of the events, with birth cohort, education, gender, and urban/rural location as predictors. These adjusted knowledge scores are plotted in most of the figures we present.¹⁷ Summary MCA coefficients are given in table 2 and will be referred to at later points. In addition, ordinary least squares (OLS) regression was used to obtain direct

multivariate analysis. For further details of sampling, see the technical report prepared by ROMIR (1994).

¹⁷ Multiple classification analysis (Andrews et al. 1973), a convenient form of dummy variable analysis, allows easier viewing of means adjusted for other predictors and is valuable when nonlinearity may be important. We use simple random sampling (SRS) statistics, despite clustering and stratification in the sample design, since our conclusions are seldom of a borderline nature that would be changed in important ways by tests for complex sampling, especially when the focus is on multivariate analysis rather than on univariate description (Skinner, Holt, and Smith 1989). Birth cohort in our analysis has 15 ordered categories of four years each, as shown in fig. 1. A four-year span was the smallest that allowed adequate category base N 's, which we regarded as above or close to 100. (We stretched the oldest cohort over a wider span both to obtain sufficient cases and to include all remaining respondents, and for this and other reasons associated with advanced age, results for the oldest cohort should be treated with caution. Its median birth year is 1916, which serves as an appropriate reference point when discussing it.) Our measure of education has eight categories, ranging from primary to complete higher, following the Russian system of schooling. (In Russia, as elsewhere, education is correlated with income— $r = .37$ in our study—but adding income to our regressions has only a slight effect on associations, and income itself has small and sometimes nonsignificant relations to knowledge.) Urban/rural location has four categories (Moscow, St. Petersburg, other urban, rural). We tested all interactions between our 15-category cohort variable and each of the three controls, and we report the five instances (out of 27 possible ones) that are significant, usually at well beyond $P < .05$, though only two appear to be theoretically informative.

TABLE 2
ASSOCIATION OF KNOWLEDGE SCORES WITH SOCIAL BACKGROUND PREDICTORS*

EVENT	BIRTH COHORT		EDUCATION		GENDER		URBAN/RURAL LOCATION	
	η	β	η	β	η	β	η	β
Yezhovshchina .....	.18	.24	.30	.30	.16	.17	.25	.18
Doctors' Plot .....	.14	.22	.40	.41	.17	.17	.27	.17
Virgin Lands Campaign .....	.17	.22	.18	.21	.06	.06	.17	.13
Twentieth Congress of the CPSU .....	.14	.19	.34	.35	.13	.13	.18	.10
Laika .....	.21	.18	.22	.19	.11	.10	.20	.16
Cuban Missile Crisis .....	.14	.18	.36	.36	.28	.27	.16	.08
<i>One Day in the Life of Ivan Denisovich</i> .....	.15	.21	.44	.45	.12	.10	.25	.14
Prague Spring .....	.14	.14	.31	.29	.22	.21	.18	.11
Katya Lycheva .....	.18	.15	.24	.21	.03	.04	.14	.10

* Betas are based on multiple classification analysis of the knowledge scores for each event, with all four social background variables included as predictors. See text n. 17 for definitions of the four predictors.

estimates of linear and curvilinear trends for the same knowledge scores, with the same controls, and these results are shown in all figures. Furthermore, we dichotomized the knowledge scores into zero versus nonzero (1 and 2 combined) and used logistic regression to repeat the OLS regressions, thus testing the robustness of *both* the scoring and the original regressions. In no case did this lead to a nontrivial difference in significance level or to any reason to alter a specific conclusion.

Throughout, we treat $P < .05$ as the nominal probability required for considering an effect statistically significant, and in most cases we report more exact probabilities. (The only exceptions are two large but nonsignificant correlations based on an N of only nine for the events themselves.) Finally, although effects due to birth cohort and effects due to aging cannot be formally distinguished, we assume that "age" has the initial role of facilitating encoding of an event, but that once encoded and carried forward, it can be conceptualized as either a cohort or a period effect. This assumption is supported by theoretically formulated predictions of nonlinear relations between birth cohort and knowledge (cf. Firebaugh and Chen 1995, p. 976).

RESULTS

After a brief overview of results, we consider each event in relation to the hypotheses about knowledge outlined earlier. Beginning with events that appear to show the clearest cohort effects, we move toward a reconceptualization that emphasizes, first, the relevance of the content of an event to different ages and therefore different cohorts, and second, broader period effects that occur for most events. We end with a discussion of the role of education in producing official and unofficial forms of knowledge.

Variations in Knowledge

One of the best known events in table 1 (the most nonzero scores and the second highest weighted score) would be entirely unfamiliar to most Americans: the Virgin Lands Campaign. The campaign was initiated in 1954 by Khrushchev, and during its course more than a million Soviet young people were sent to Kazakhstan and other parts of the USSR to expand grain production. Even among Russians ages 18–21 in 1994, a majority was able to give at least a partly correct answer about this agricultural crash program that had waned well before they entered adolescence. On the other hand, the novel *One Day in the Life of Ivan Denisovich* is the least known of all the events in table 1. The publication of Solzhenitsyn's grim account of the gulag became a symbol for both Soviet

intellectuals and Western scholars of liberalization during Khrushchev's Thaw, but four out of five Russians know nothing at all about it.

The fact that the two best known events in table 1 are the Virgin Lands Campaign (using nonzero scores) and (using weighted scores) the dog Laika, who was launched into orbit in *Sputnik 2* in 1957, indicates that we are not dealing mainly with memories resulting from revelations during glasnost. Both events occurred much earlier in time, were positive (Laika) or mixed (the Virgin Lands Campaign) in implications for achievements under Soviet rule, and were not important topics during glasnost.¹⁸ It also seems unlikely that degree of knowledge of these nine events is due to recency of occurrence more generally, since the correlation between dates and scores is strongly in the opposite direction ($-.49$ with weighted scores and $-.52$ with percentage of nonzero scores, neither significant with nine cases). Of course, it is possible that the earlier events were intrinsically more meaningful to respondents than the later ones; we have no way of separating intrinsic personal importance from historical time.

We suspect that more significant than either date or political importance is a combination of the "human interest" content of the event and its celebration by Soviet schools and mass media. Both factors are doubtless reflected in the high identification of Laika, whose 1957 orbit in space provided a moment of wonderment and accomplishment to most Russians at the time. Both factors were also involved in the Virgin Lands Campaign, as we will indicate later. Yet celebration cannot explain another event in table 1 that is relatively well known (second highest in nonzero scores): the Yezhovshchina, or "time of Yezhov," named for Stalin's NKVD (secret police) chief, who presided over the Great Purge during the years 1936–38. Knowledge of that traumatic time of some 60 years earlier has been transmitted broadly through the population.

We now present each of the nine events in terms of its relation to birth year, which we use to connect the knowledge of respondents with the time an event occurred. Knowledge was, of course, measured only in 1994, and its patterning is used to infer who obtained and then retained the knowledge best from earlier years. But even where the knowledge may have been substantially added to during glasnost for more than the youngest cohorts, almost any plausible model that could account for the patterning

¹⁸ We obtained from two well-educated Russians and one American specialist on Russia independent ratings of the amount of discussion during glasnost of each of our nine events. There was very high agreement among these raters, with the Yezhovshchina and the Doctors' Plot at the high end of discussion, Laika, the Virgin Lands Campaign, and Katya Lycheva having little or no discussion, and the remaining events in between. Glasnost can be considered to have extended from 1986 until the Soviet Union itself was dissolved at the end of 1991, though of course discussion of past events did not end at that point.

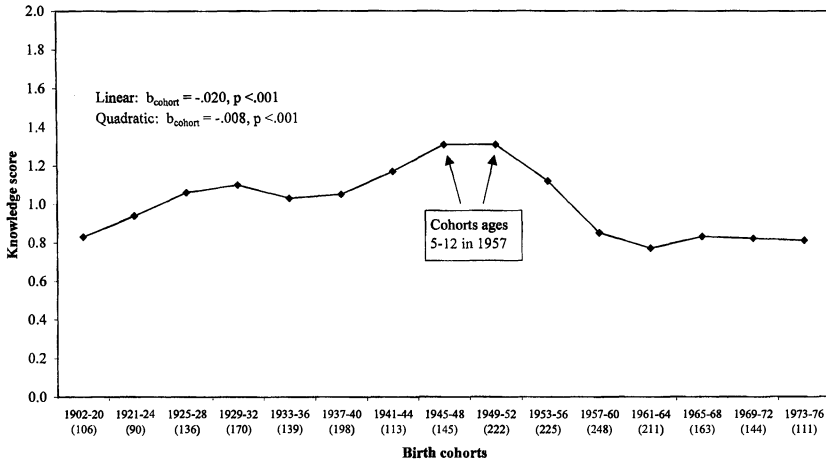


FIG. 1.—Knowledge of Laika (1957) by cohort, controlled for education, gender, and urban/rural location.

requires the assumption of greater “preparation” of older cohorts because of their earlier experience. Thus knowledge in 1994 does point to the time in which it was gained.

TWO EVENTS THAT YIELD DEFINITE COHORT EFFECTS OF UNEXPECTED ORIGIN

Laika and the Importance of Early Childhood

We begin with an event from the mid-1950s that occurred out of the blue, literally as well as figuratively. Laika, the small dog sent aloft as the first mammal in space, had been chosen for fur coloring that would show up well in television transmission and for her good temperament, thus providing an ideal focus of interest at the dawn of the space age. That the effort succeeded is indicated by the high degree of knowledge about Laika across the entire sample more than 35 years after the date of the event. But as figure 1 shows, the most knowledgeable Russians were those born between 1945 and 1952, which means that they were only 5–12 years of age in 1957 when Laika circled the globe in *Sputnik 2*. (The quadratic term in the overall regression is highly significant, and if a narrower range around the peak cohorts is defined, the term becomes still more significant.) A dog traveling across the sky in a sputnik must have made a considerable impression on young children at the time, and thus an event with special appeal to children shows that the age for developing collective

knowledge can be well below adolescence.¹⁹ Older cohorts on the scene at the time were less knowledgeable in 1994, as were younger cohorts that grew up after the event had occurred.

At the same time, if we exclude the cohorts from 1941 to 1956 that show the greatest knowledge, most other Russians alive at the time of Laika's flight demonstrate significantly more knowledge as a group than those born after the event ($P < .001$)—an overall period effect attributable simply to being alive in 1957. Of course, even those born after *Sputnik 2* are somewhat informed about Laika, but their considerable exposure through schools and mass media to the triumphs of the Soviet space program could not match live experience of the event itself.

Katya Lycheva and an Early Age-Gender Interaction

In 1983 a 12-year-old American girl, Samantha Smith, had written Soviet leader Yury Andropov to express support for peaceful coexistence, then traveled to the Soviet Union for the same purpose. In 1986 the Soviet Union produced its own youthful emissary for peace, an 11-year-old girl named Katya Lycheva, who visited America on her mission. Her visit received substantial coverage in the Soviet press and considerable attention in schools, but after her brief national fame she was not heard from again.²⁰

In 1994 we found Katya Lycheva to be about as well known to Russians as the 1968 reform movement in Czechoslovakia (cf. Lycheva with the Prague Spring in table 1). But as figure 2 shows, knowledge of Lycheva is concentrated in the youngest cohorts, those who were 10–17 years of age in 1986 when she came to prominence. (The shape of knowledge for the Prague Spring, which we consider later in fig. 11, is quite different, and specifically it is lowest for the youngest cohort.) Furthermore, eight of the nine events listed in table 2 show men to be significantly more knowledgeable than women, but Katya Lycheva provides the one case where women tend to have higher knowledge scores. More important,

¹⁹ "Childhood amnesia" makes it unlikely that memories of public events can go back much earlier than age 5 (Pillemer 1998). Thus we exclude the first four years of childhood when we consider the effects of experience on knowledge of public events.

²⁰ During Katya's visit to the United States, the teachers' newspaper *Uchitel'skaia gazeta* ran front-page descriptions of her activities in every issue. *Komsomol'skaia pravda*, the newspaper of the communist youth organization, likewise offered detailed coverage of Katya's U.S. travels. Yet just a few months later, when she appeared at the Goodwill Games in Moscow together with Samantha Smith's mother, these same newspapers mentioned her attendance only briefly, despite extensive coverage of other aspects of the games. See, e.g., *Uchitel'skaia gazeta*, March 20 and 22, April 5, and July 8, 1986; *Komsomol'skaia pravda* April 4 and July 6, 1986.

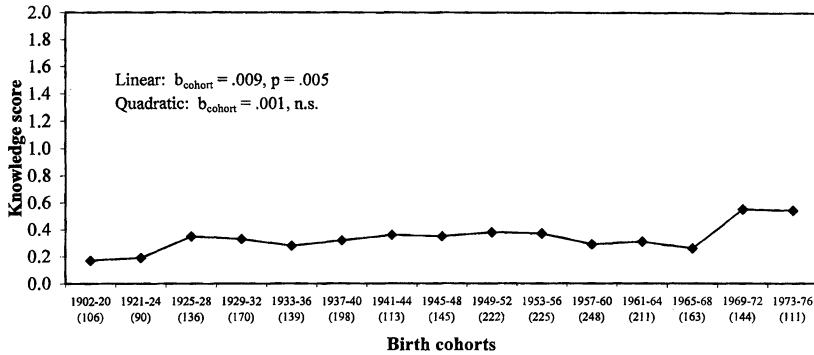


FIG. 2.—Knowledge of Katya Lycheva (1986) by cohort, controlled for education, gender, and urban/rural location.

this gender difference is located almost entirely within the two youngest cohorts, where it is significant ($P < .02$) and produces the specification of cohort effects shown in figure 3. The relation that appeared in figure 2 disappears entirely for men (neither the linear nor quadratic effects for men approach significance, despite the apparent small rise for young men), but the linear relation for women is highly significant, and an additional product term for the overall cohort-by-gender interaction is also significant ($P < .03$).

All respondents in our sample were alive and able to follow the news about Katya Lycheva in 1986, but evidently it was young girls who paid special attention to her and retained that knowledge in their memories

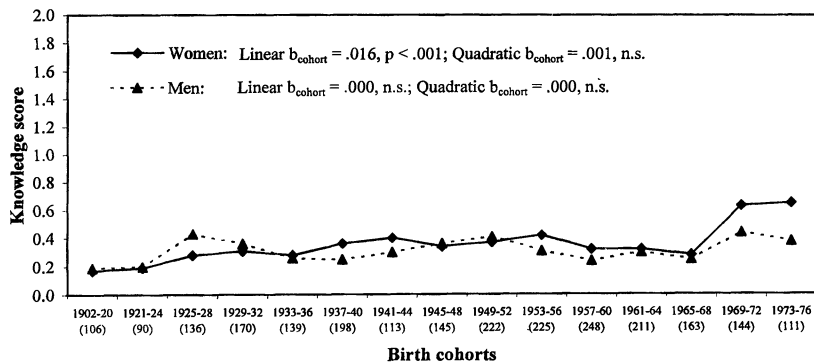


FIG. 3.—Knowledge of Katya Lycheva (1986) by cohort and gender, controlled for education and urban/rural location.

some eight years later when our survey took place. In one sense, this is consistent with the importance of a critical age for gaining knowledge of public events, since women who were even a little older at the time less often knew who Lycheva was. But in another sense, what is demonstrated here is not so much a generalized critical age for knowledge, but rather the appeal of the unique age-gender content of the event to a particular age-gender combination within the total population. We should stress that the singular effect on girls was not because Lycheva was presented to the Soviet public in terms of gender, for the primary emphasis was on her propaganda mission, though her age and gender were of course evident to the public.

Although both Laika and Katya Lycheva indicate an appeal to young people, they seem to do so because of their special content, further limited to girls in the case of Katya. Thus it is not certain how much youth in the sense of a generic critical time of life is involved in either case.

TWO POSSIBLE COHORT EFFECTS

The Cuban Missile Crisis and Mature Adulthood

The "Caribbean Crisis," as it was known in the Soviet Union, brought Soviet-American relations to the brink of nuclear war in 1962. But although the crisis should have made some impression on Russians paying attention at the time, it received much less media emphasis in the Soviet Union than in the United States, and was discussed in only a limited fashion in subsequent Soviet historical accounts.²¹ In addition, despite its international importance, the Cuban Crisis was of brief duration.

The results for the crisis in figure 4 are more difficult to interpret than those for Laika and Katya Lycheva. There is some evidence for a specific cohort effect among Russians who were in their early thirties at the time (the 1929–32 cohort), with the quadratic term for cohorts born between 1925 and 1936 significant ($P < .05$). More generally, those born in 1952 or earlier (i.e., 10 years of age or older during the crisis) are more knowledgeable than those born after 1952 ($P < .001$).²² This can be taken as

²¹ High school textbooks included a brief description of the incident, accusing the United States of having caused the crisis by preparing to invade Cuba (Gardner 1988). Accounts during the 1970s and most of the 1980s presented a similar viewpoint (Garthoff 1989). During glasnost more complete discussion became possible, and in 1989 Soviet, U.S., and Cuban officials who had been involved in the crisis met in Moscow to discuss it more fully (Tolz 1990).

²² The location of the 1949–52 cohort is ambiguous, but the difference between the two levels of knowledge remains significant no matter how that cohort is classified.

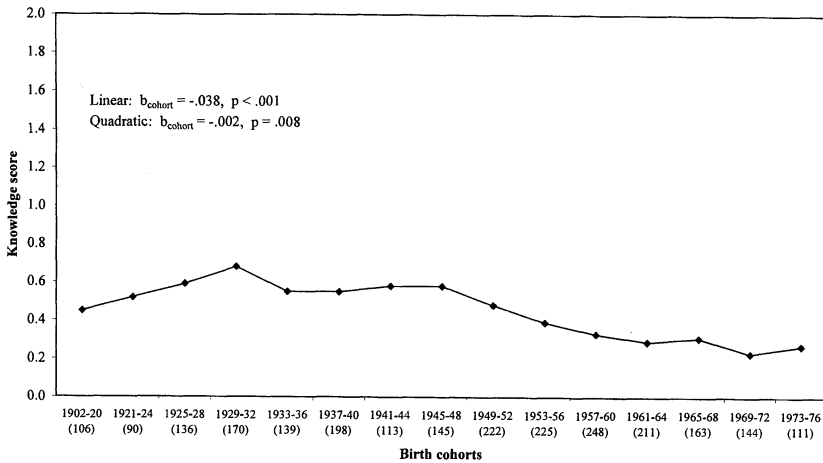


FIG. 4.—Knowledge of Cuban Missile Crisis (1962) by cohort, controlled for education, gender, and urban/rural location.

evidence for a period effect on all those able to attend to the crisis as it happened. In either case, the extension in the opposite direction to that needed for knowledge of the dog Laika makes good sense in terms of event content, because the Cuban Missile Crisis was a distant and abstract occurrence that touched few Russian lives directly. Therefore, it was of primary interest to mature adults, just the opposite of Laika's appeal to young children. Thus the content of an event again becomes an important factor in understanding how its impact varies by age, regardless of whether we focus on the limited cohort effect or on the broader period effect.

One Day in the Life of Ivan Denisovich

Solzhenitsyn's powerful novel about the Soviet gulag was first published in the journal *Novy mir* in 1962, near the end of the thaw associated with Khrushchev's name. It was then banned completely and even ripped out of library copies of *Novy mir* when Khrushchev was deposed in 1964. Knowledge of the novel shows two different age effects in figure 5. On the one hand, there is a broad period effect, such that those born in 1952 or earlier are more knowledgeable than those who came of age after the

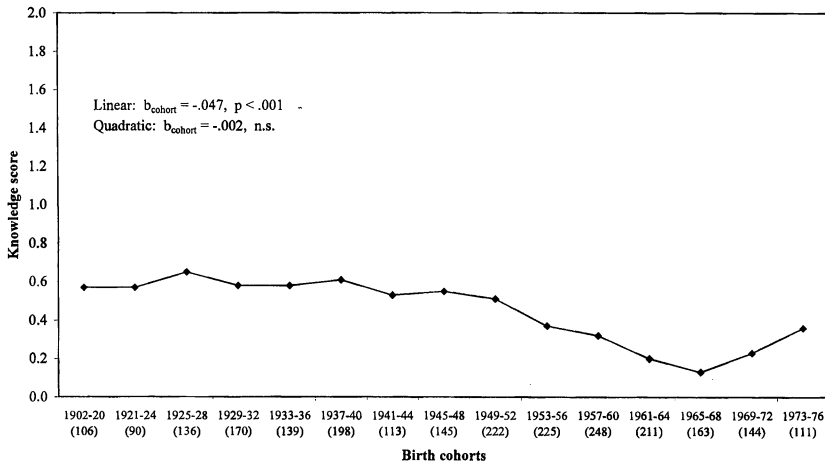


FIG. 5.—Knowledge of *One Day in the Life of Ivan Denisovich* (1962) by cohort, controlled for education, gender, and urban/rural location.

book was banned ($P < .001$).²³ On the other hand, there is a sharp rise in knowledge among the youngest Russians ($P < .03$ for an added quadratic term for the five youngest cohorts, and $P < .001$ if extended to include the seven youngest).²⁴ This upturn is almost certainly due to the publication and publicizing of Solzhenitsyn’s writings beginning in 1989 and extending into the 1990s, including even a stage dramatization of *One Day*

²³ The same significance level is found if the 1953–56 cohort is treated as older rather than younger. Within the range from the oldest through the 1952 cohort, those born before 1941 are significantly more knowledgeable ($P < .001$) than those born between 1941 and 1952. This can probably best be attributed to their having experienced the effects of the Great Purge. Although *One Day in the Life of Ivan Denisovich* is set in the postwar years, it is clear from reviews published at the time that readers interpreted it as concerned with the entire Stalinist system of repression. (See, e.g., “Ivan Denisovich, His Friends and Foes,” *Novy mir*, January 1964.) We also analyzed further the content of the correct/partially correct responses to *One Day in the Life of Ivan Denisovich* and noted that a small proportion (8%) referred explicitly to the book having been published during the Thaw that followed Khrushchev’s Twentieth Party Congress speech. These respondents tended especially to come from the 1941–44 cohort, which was between ages 12 and 15 at the time of Khrushchev’s speech and five years older at the time of the novel’s publication. The quadratic term for the curve having that cohort as its peak reaches significance in a logistic regression ($P = .023$).

²⁴ The nonsignificant ($P = .066$) quadratic term for the full 15 cohorts is negative, evidently reflecting the overall curve downward from the oldest Russians to the youngest. But when the regression is run using only the youngest cohorts, the quadratic term is positive since the curvilinearity becomes convex.

(Remnick 1993). Since the novel was not addressed to any particular age group, the increase in knowledge by younger Russians seems most interpretable as a critical age effect on those who had passed through adolescence during the extraordinary events of glasnost and the rapid dissolution of the communist state. The slightly older cohorts that had come of age during the last years of the Brezhnev era are the least knowledgeable of all Russians on this point. Thus, overall knowledge of Solzhenitsyn's novel appears to produce two distinct effects: first, a period effect visible among all cohorts alive during the book's publication; second, a critical age effect at a time of great upheaval in the Soviet Union.²⁵ We will consider the theoretical meaning of the unusual critical age effect at later points and especially in our conclusion.

FOUR EVENTS THAT SHOW OTHER SPECIFICATIONS IN TIME

We now turn to four events that were long lasting, though in different ways. For all four, it is difficult to identify a cohort effect in terms of overall knowledge, but we are able to connect more specific event content to the acquisition of knowledge by particular cohorts.

The Virgin Lands Campaign

The most obvious long-lasting event included in our survey was the Virgin Lands Campaign, Khrushchev's much-heralded program to improve grain harvests that sent young volunteers to cultivate land in Kazakhstan. Although the campaign was eventually recognized as ill-conceived—it resulted in widespread soil erosion—the effort continued from its first announcement in 1954 through Khrushchev's years of leadership, and then at lower levels through most of the 18 Brezhnev years as well. The twentieth anniversary of the campaign was celebrated in 1974, by which time over 1 million citizens had received medals "For the Development of the Virgin Lands," and Brezhnev spoke of the history-making feats of the

²⁵ In the case of *One Day in the Life of Ivan Denisovich* there are also statistically significant interactions between our 15-category cohort variable and each of the other background variables: education, gender, and urban/rural location. The interactions appear to occur because in each case those adults in one group (men, the higher educated, those living in Moscow or St. Petersburg) when the book was first published are much more knowledgeable than the other group (women, less educated, rural), but this difference decreases for younger cohorts. The more knowledgeable groups therefore have steeper slopes than the less knowledgeable groups. We should also emphasize that knowledge of Solzhenitsyn's novel is largely concentrated among the best educated and also among men in the two major cities, so that when we speak of its spread across many age groups, this is mostly within a relatively narrow stratum.

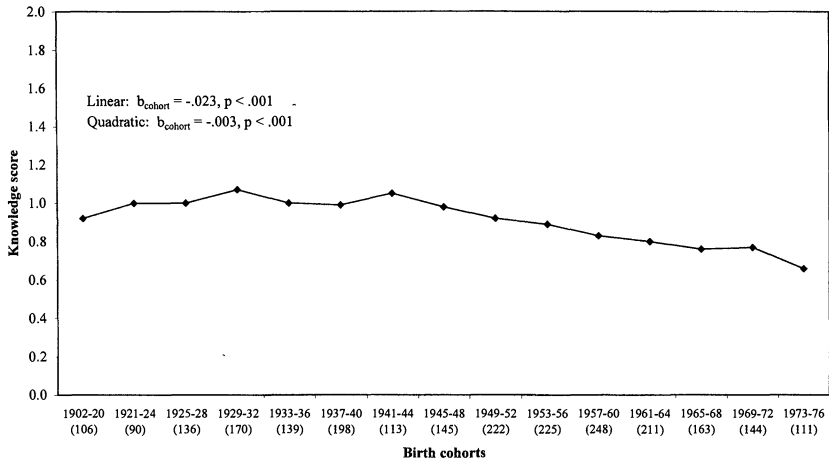


FIG. 6.—Knowledge of Virgin Lands Campaign (1954) by cohort, controlled for education, gender, and urban/rural location.

first settlers as “forever inscribed in the memory of the people.”²⁶ These commemorations were widely reported in Soviet newspapers and the proceedings were published as a book.²⁷ In 1978 Brezhnev published a further book focusing on his own leadership role in the Virgin Lands Campaign (and virtually ignoring Khrushchev’s role), which was widely read and discussed in schools throughout the Soviet Union.²⁸ Thus the Virgin Lands Campaign figured in the news for more than two decades, and even in the 1980s it was never explicitly repudiated.

Figure 6 shows a mild but statistically reliable overall curvilinearity in knowledge, with a somewhat uneven peak. (The slight U-shape between the 1929–32 and 1941–44 cohorts does not approach significance and is probably best regarded as due to sampling error.) The main drop in knowledge occurs for those born toward the end of the 1950s and later, who reached their teenage years after the campaign had trailed off, though even the youngest cohorts are more knowledgeable about the Virgin

²⁶ *The Great Achievement of the Party and the People: Speeches by Participants in the Meeting Held in Alma-Ata on March 15, 1974, to Mark the Twentieth Anniversary of the Opening Up of the Virgin Lands* (Moscow: Novosti, 1974), p. 11.

²⁷ *The Great Achievement of the Party and the People: Materials from the Ceremonial Session in Alma-Ata, 1974* (Moscow: Politizdat, 1974). See newspaper coverage on March 15 and 16, 1974, but also throughout the following and preceding weeks.

²⁸ See, e.g., *Uchitel'skaia gazeta*, November 11, 14, and 30, 1978, where articles document the extensive use of Brezhnev’s book in secondary schools.

Lands Campaign than they are about most other events. Since publicity about it continued over a considerable span of time, it is not surprising to find less cohort specificity in knowledge scores than that which occurs for the events discussed previously.

In order to connect more specific knowledge to points within the nearly three decades that the campaign received public attention, we coded the correct/partly correct responses for mentions of the two Soviet leaders whose names were associated with the campaign in different periods. The 170 respondents who mentioned only Khrushchev's role had a mean age of 50 in 1994, indicating that they were 10 in 1954 when the campaign began and in their adolescence during its early years. The 142 respondents who mentioned only Brezhnev's role had a mean age of 39, indicating that they were age 10 as Brezhnev's rule began and into early adulthood when his book was widely promoted (for the difference in means, $t = 6.3$; $df = 305$; $P < .001$). (Only eight respondents mentioned both leaders, and their mean age in 1994 is, as might be expected, intermediate: 45.) Thus, even though general knowledge of the Virgin Lands Campaign has little specific location among cohorts, an important element of that knowledge can be tied more closely to personal experience during younger years. Russians who were young at the inception of the campaign in the 1950s continued to associate it with Khrushchev's name, despite state and party propaganda throughout later years that presented it as largely Brezhnev's doing. Although this can be treated as a cohort effect, it is important to recognize that the campaign was aimed primarily at Russian youth; therefore an alternative interpretation is that the content of the event was especially relevant to a particular age range, much as was true for Laika and Katya Lycheva.

Yezhovshchina, the "Time of Yezhov"

No event of the last 60 years experienced more vicissitudes in Russian public attention than the Great Purge. The purge itself (1936–38) was widely known at the time because of substantial publicity about the activities of purported spies, "wreckers," and other "enemies of the people," and because of the great numbers arrested and imprisoned or executed.²⁹ It

²⁹ The total number of people arrested during 1937–39 is not known, but estimates vary from about 3 million to about 8 million. Scholars also disagree about the level of fear felt by the Soviet public during the late 1930s, but there is general agreement that Soviet citizens were aware of the arrests and trials—whether or not they believed such actions were justified. The newspapers printed frequent warnings about the threat from "enemies of the people," reported arrests, and even urged schoolchildren to be vigilant against "class enemies." See, e.g., *Pravda*, May 10, 12, and June 12 and 13, 1937. Films like *Great Citizen* helped to publicize and justify the activities of the secret police through their portrayal of evil traitors.

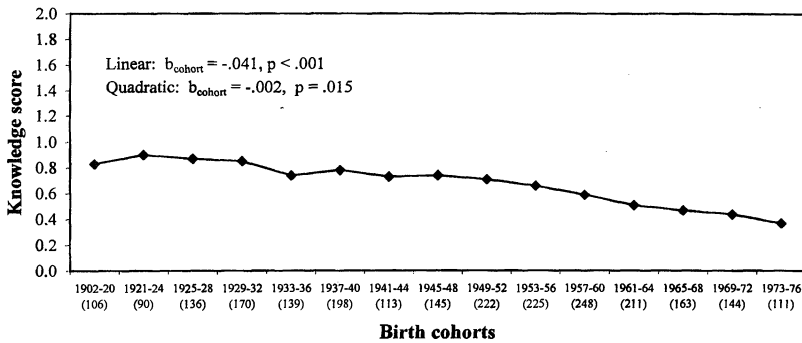


FIG. 7.—Knowledge of the Yezhovshchina (1937) by cohort, controlled for education, gender, and urban/rural location.

was then overshadowed by World War II and the war's immediate aftermath, but briefly resonated again with Stalin's 1953 accusations of a Doctors' Plot (which we deal with below). The Great Purge was brought to light once more in 1956 through Khrushchev's "secret speech" condemning Stalin at the Twentieth Congress of the CPSU and during the subsequent Thaw. It was largely suppressed again for two decades after Khrushchev's ouster in 1964, but finally returned to public view when, beginning in 1987, the crimes perpetrated under Stalin received increasingly open discussion.

Over this long stretch of time, most cohorts had an opportunity to learn at least something about the time of Yezhov, and as noted earlier it turned out to be one of the best known events we asked about. Yet the overall impression conveyed by figure 7 is of greatest knowledge by those who lived through the purge, then a gradual loss of knowledge from that time through cohorts more and more distant from it, with no evidence of a particular increase as a result of glasnost. Neither distant family memories nor very recent revelations could provide for younger cohorts the same degree of knowledge possessed by older Russians who had experienced the Yezhovshchina.

The most visible drop in knowledge appears after those who were born in 1932 or earlier and were thus five years of age or older during the purge.³⁰ If we collapse the four oldest cohort categories and compare them with the next four also collapsed, the difference is highly significant ($P < .001$). Thus Russians who were alive during the time of Yezhov are more

³⁰ Gorbachev (1996) reports having been much affected at age six by the arrest of his grandfather in 1937.

knowledgeable than those born even shortly afterward. Within the four cohorts alive during the purge, however, there is no clear or significant indication of a more limited cohort effect. The Great Purge evidently affected all cohorts alive at the time to much the same extent in terms of later knowledge. The subsequent gradual, rather than precipitous, decline suggests later learning, albeit weaker and weaker over time.

Even though figure 7 shows only a gradual decline over cohorts in the “amount” of general knowledge of the Yezhovshchina, we believed that more subtle differences in knowledge content might reflect the period in which the knowledge was obtained. Khrushchev’s secret speech to the Twentieth Party Congress in 1956 was in part a commemoration of the victims of the Great Purge, with statements like the following: “Many thousands of honest and innocent Communists have died as a result of . . . the fact that all kinds of slanderous ‘confessions’ were accepted, and . . . of the practice of forcing accusations against oneself and others” (Whitney 1963, p. 231).³¹ Khrushchev stopped short, however, of a complete condemnation of Stalin, which would have risked undermining the legitimacy of his own power and of the system as a whole. But by the time of glasnost in the late 1980s, the victims were long since gone and the emphasis was on the larger evil that had been perpetrated in the name of communism over the years and on more general issues of blame and responsibility.

We coded all Yezhovshchina responses that had been scored as correct or partly correct to create three dichotomous variables (each scored “1” for mention of a theme and “0” for lack of mention):

1. *Experience* indicates those who spoke in personal terms about individuals affected (e.g., “My father was arrested”), as against those who made no such reference.
2. *Victims* indicates those who spoke in nonpersonal terms about victims of the purge (e.g., “Many innocent people were killed”), as against no such reference.
3. *Perpetrators* indicates those who referred to the perpetrators of the purge (e.g., “Stalin and Yezhov ordered it”), as against no such reference.

A residual code identified responses not classifiable within this scheme.

Figure 8 shows the use of logistic regression coefficients to graph predicted probabilities by cohort for mentions of each of these three themes

³¹ Although delivered at a closed session of the CPSU congress, knowledge of the speech was quickly transmitted through party organizations across the country.

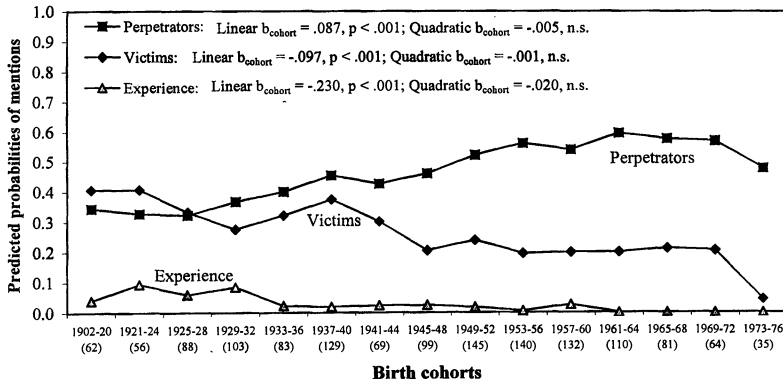


FIG. 8.—Male Muscovites' predicted probabilities of mentioning three components of the Yezhovshchina. (Probabilities are predicted using logistic regression, with *N*s based on correct/partially correct responses.)

in identifications of the Yezhovshchina.³² We naturally anticipated and found mentions of personal experience to be largely restricted to the older end of the cohort continuum, with no substantial drop until after the 1929–32 cohort that was in early childhood (five to eight years old) at the height of the purge. The victims curve is similar in that it shows a general decline from the earliest to the most recent cohorts, but with an interesting exception: an upward bulge for the 1933 to 1944 cohorts, with the peak for ages 16 to 19 at the time of Khrushchev's extraordinary speech to the Twentieth Party Congress. (If we focus on the bulge itself—the four cohorts demarcated by 1929 at one end and 1948 at the other—the quadratic term consistent with curvilinearity is significant at $P < .02$). It appears that an emphasis on victims comes partly from those young when the purge occurred (though our sample lacks Russians who were already old during the purge, so we cannot say how such people would have answered), and then again draws from Russians in their youth at the time of Khrushchev's 1956 speech.

³² A small proportion of respondents (6.3%) mentioned more than one of the three themes. However, making the curves mutually exclusive by omitting overlaps or assigning them arbitrarily to particular categories does not alter the picture, and the overlap is conservative by reducing slightly the differences among the curves. In the figure we plot predicted probabilities of mentioning each of the individual components by cohort, with education controlled, for male Muscovites. Predicted probabilities for the other gender/residence groups follow a similar pattern. (Note that the base *N*s in fig. 8 are smaller than in other figures, since only correct/partially correct responses are included.)

Finally, the perpetrators curve presents a quite different pattern: relatively low for the older cohorts and rising toward the younger cohorts, with maximum mentions by those born in the 1960s and therefore in their late teens and twenties when glasnost led toward the full rediscovery of this history. The tendency of younger people to focus on perpetrators probably indicates their assimilation of the Yezhovshchina to the more general emphasis during glasnost on Stalinist crimes, which were not limited to the 1936–38 purge. Furthermore, the sharp drop in mentions of *any* of the three themes by the youngest cohort—born in 1973–76 and thus coming of age after the end of glasnost and indeed after the end of communist rule—indicates that they tended to give only vague responses like “repressions” that were coded into the residual variable.³³ The focus of this youngest cohort was on the present and the future, not on what to them was the distant past. Thus youthful age does seem to play a distinctive role here in terms of the content of the knowledge absorbed for the Yezhovshchina. This supports the idea suggested in our discussion of *One Day in the Life of Ivan Denisovich*: it is especially during a time of social upheaval that youth—lacking a personally experienced foothold in the past—becomes the part of the population most open to new ways of thinking.

The Twentieth Congress of the CPSU

The Twentieth Congress of the CPSU, at which Khrushchev gave his speech condemning Stalin’s crimes, occurred in 1956. The most visible change in figure 9 occurs for Russians born after 1948, a point that separates those alive and over age eight at the time of the congress from those who came later.³⁴ This difference between two levels of knowledge is highly significant ($P < .001$), and it accounts for most of the overall highly significant linear trend for the entire figure. (If the bridging 1949–52 cohort is omitted, neither of the two parts of the figure taken alone shows a significant linear trend.) We can also see that among Russians alive and beyond early childhood at the time of the speech, those who were 40 were

³³ Responses classified as residual (37% of all nonzero answers) occurred about equally across cohorts, except that their proportion (of correct/partly correct responses) rises sharply for the youngest cohort, indicating that what was transmitted to young Russians in the late 1980s and early 1990s was a general sense of Stalinist repression, without much detail learned or remembered.

³⁴ We do not assume that many eight year olds were paying attention to the Twentieth Party Congress, but reports of Khrushchev’s speech circulated widely following the congress, and by then older children could have learned about it through their families and others. There were some 1,500 delegates to the congress, including prominent foreign communists.

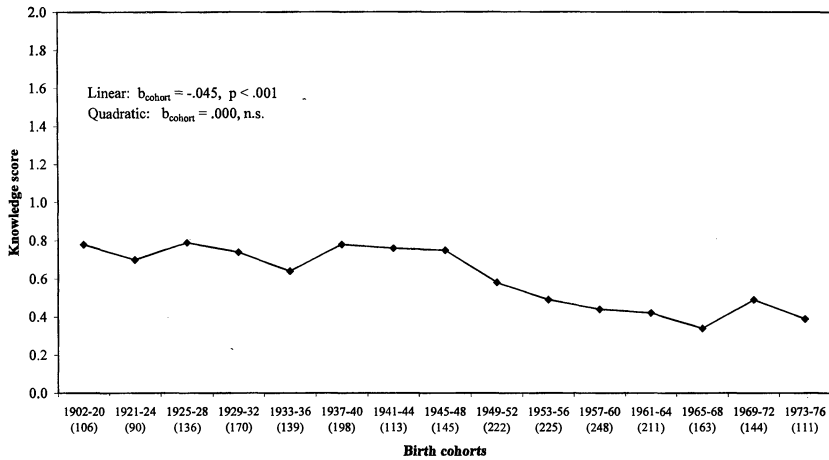


FIG. 9.—Knowledge of the Twentieth Congress of the CPSU (1956) by cohort, controlled for education, gender, and urban/rural location.

as knowledgeable as those who were much younger. Unlike Laika and Katya Lycheva, nothing about the secret speech focused specifically on youth; indeed it clearly drew on memories dating back to the Great Purge. It is simplest to see figure 9 as presenting a period effect on those alive in 1956, with diminished knowledge for all those who came on the scene later. (The slight rise at the younger end of the cohort continuum may reflect information gained during glasnost, but it does not approach significance and without further evidence cannot be distinguished from sampling error.)

It is useful to note that the oldest cohort, born 1902–20, is among the most knowledgeable with regard to the Twentieth Congress. If we take their median birth year of 1916 to locate them in time, then they would have been 40 years old at the point of Khrushchev’s speech to the congress, well beyond any definition of early adulthood. Yet by contrast they were relatively low in knowledge of Laika (fig. 1), an event that occurred at almost the same point in time (1957) as the congress (1956), which argues against treating their knowledge of the congress as due simply to a general period effect covering all events. Instead, we interpret their unusually knowledgeable position on the Twentieth Party Congress as drawing on its clear connection to the Great Purge in 1937 when this oldest cohort was about 21 years of age. Following this reasoning, we would also expect—and do find—this same cohort to be among the more knowledgeable about the Solzhenitsyn novel and about the Doctors’ Plot, both of which related to—and resonated with—the time of Yezhov. (The only

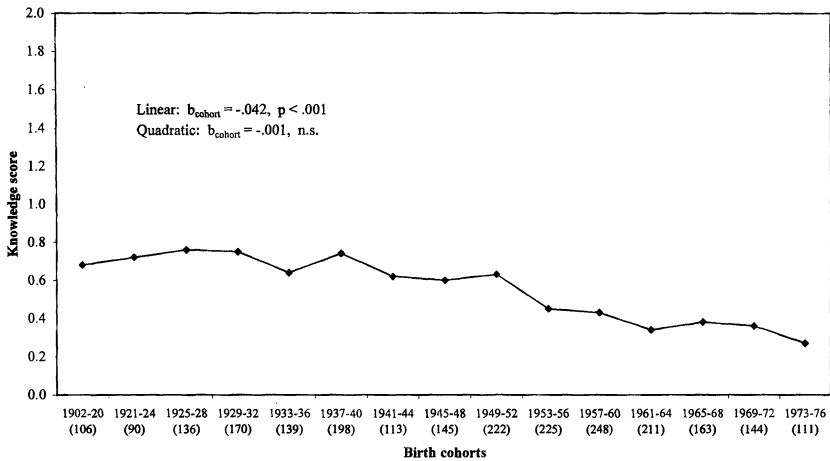


FIG. 10.—Knowledge of the Doctors' Plot (1953) by cohort, controlled for education, gender, and urban/rural location.

other event that has a similarly high level for the oldest cohort is the Prague Spring, which also may have been seen by some as connected to repressive action.) For all other events—Laika, Katya Lycheva, the Cuban Missile Crisis, and to some extent the Virgin Lands Campaign—the oldest cohort is among the less knowledgeable.

The Doctors' Plot

In 1953, Stalin attacked Kremlin physicians with the fabricated claim that they were attempting to destroy party and military leaders. The "Doctors' Plot" was seen at the time as the ominous beginning of a new purge, quite possibly to be as pervasive—had Stalin lived—as the 1936–38 terror (Riasanovsky 1993). The drop in knowledge of the Doctors' Plot shown in figure 10 occurs mainly after the 1949–52 cohort, which is puzzling in terms of period effects since that cohort would have been too young to have experienced even through their parents' eyes what was happening at the national level. Once Stalin was dead, the supposed plot would probably have had fewer long-term reverberations than did Khrushchev's speech to the Twentieth Congress, although we note that overall knowledge levels for these two events are similar. The period effect represented by separation between the two levels of knowledge in figure 10 is highly significant ($P < .001$), and this holds regardless of how the 1949–52 cohort is classified, though we remain unable to explain the level of the 1949–52 cohort as such.

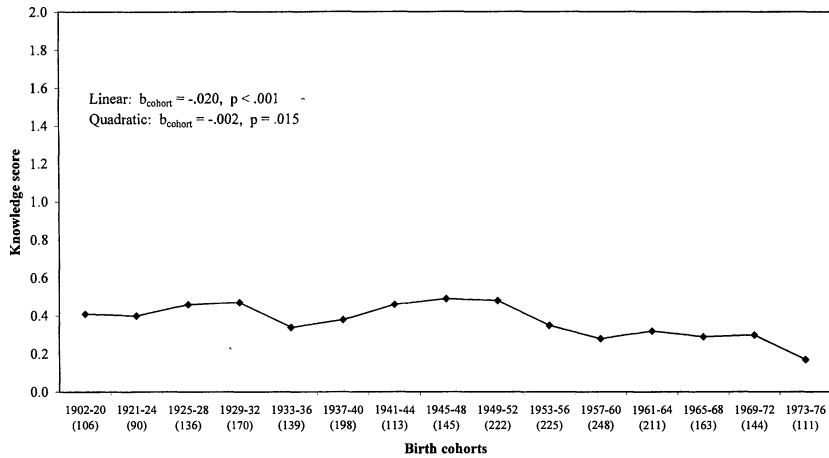


FIG. 11.—Knowledge of the Prague Spring (1968) by cohort, controlled for education, gender, and urban/rural location.

We did not find evidence even for the Yezhovshchina of a change in levels of overall knowledge directly attributable to glasnost, and thus its absence in the case of the Doctors' Plot is not surprising. What we do have for the latter is evidence of the *loss* of important knowledge content by young people. The supposed plot had been characterized by Stalin as a Zionist conspiracy, and it had a clear anti-Semitic emphasis. Mentions of anti-Semitism had been one element in our correctness coding, but only 153 out of the 931 responses coded as correct/partially correct included such a mention. Using these 931 nonzero responses, there is a significant association ($P < .02$) between membership in older cohorts and mentions that Jews were a special target of the Doctors' Plot.³⁵ Evidently, younger Russians simply assimilated the Doctors' Plot to Stalinist purges more generally and were less aware of its anti-Jewish emphasis.

A Final Puzzle: The Prague Spring

The last of our nine events represented the attempted liberalization in 1968 of the oppressive communist regime in Czechoslovakia, which was swiftly put down by Soviet-led military force, justified as essential for the defense of socialism. Alternative views were available during glasnost, but would not have been salient to much of the public at that late point. There appear to be two knowledge peaks for this event in figure 11. The

³⁵ This calculation is based on logistic regression, controlled for education, gender, and urban/rural location. For the analysis we omitted 21 respondents who identified themselves as Jews on a question about nationality.

clearer one is for the 1941 to 1952 cohorts, who were 16–27 at the point that the Soviet Union crushed the attempt by reformers in Czechoslovakia to create “socialism with a human face”; thus this part of the figure can be interpreted as a critical age cohort effect, with the event having maximum impact on those who were young at the time of the Prague Spring. (Using the range between the 1933–36 cohort and the 1957–60 cohort, $P < .001$ for the quadratic term.)

The second slightly lower peak is for the 1925–32 cohorts, which were much older in 1968, well beyond usual definitions of a critical age and an age group not obviously connected to the event in terms of its specific content. If we could regard this peak as due to sampling error, we could treat the higher knowledge of all cohorts born before 1957 as reflecting a more general period effect, as occurs for most other events. However, the quadratic term for the range between 1921 and 1936 reaches significance ($P = .020$), which cautions against dismissing the second peak too easily. Likewise, the drop in knowledge for those in the 1933–40 cohorts cannot readily be treated as chance (the range from 1929–32 to 1941–44 also produces a significant quadratic term). Thus it is necessary to leave this final figure without an adequate and testable interpretation, allowing for the possibility of either an unusual chance occurrence or a substantive explanation not yet discovered.³⁶

The Two Meanings of Education

The strongest associations with knowledge shown earlier in table 2 are those for educational attainment, but we proposed that this variable be conceptualized as having two different meanings.³⁷ The high associations, we believe, reflect not the content of schooling, but rather the greater knowledge of the world open to those with intellectual and informational resources and interests that enabled them to learn beyond what was officially available to the general Russian public.

³⁶ There is one other finding with regard to both the Prague Spring and the Cuban Missile Crisis, the two items that focused on events outside the Soviet Union. For most events we find a regular ordering of knowledge with Moscow at the top, St. Petersburg second, other urban areas third, and rural areas least knowledgeable. But for these two foreign events, St. Petersburg residents show as much (the Prague Spring) or more (Cuban Missile Crisis) knowledge than do Muscovites. Such greater knowledge of foreign happenings is consistent with St. Petersburg's historical westward orientation, as well as with its tendency to support radical reformers (e.g., in the 1989 election).

³⁷ Note that table 2 presents estimated zero-order and adjusted magnitudes of association but does not show direction or assume linearity; however, graphing indicates that all the relations involving education are clearly positive and reveal only trivial departures from monotonicity.

Thus the strongest association (both η and β in table 2) is with knowledge of Solzhenitsyn's harshly realistic novel *One Day in the Life of Ivan Denisovich*, the least-known event in table 1. This is not simply a matter of specialized interest in serious literature, for close behind it in size of associations with education is knowledge of the Doctors' Plot.³⁸ Neither of these events was treated in schools or in the mass media in the period after its initial occurrence and prior to the advent of glasnost.

In its other meaning, education refers to the deliberate socialization of the young. Where primary and secondary levels of schooling are widespread and centrally controlled, as was true in the Soviet Union, such socialization, importantly aided by the controlled mass media, should show up in the form of low levels of association between years of education and knowledge of events deemed favorable to the country's image. Virtually the entire population will have been encouraged to learn about such events. This applies to three events in table 1 that were enthusiastically promoted by the regime: Laika, Katya Lycheva, and the Virgin Lands Campaign. These three present the lowest associations with years of schooling (both η and β in table 2), but this indicates the pervasiveness of direct socializing effects rather than their absence.³⁹ More generally, the greater the knowledge shown for an event in table 1, the less is its association with years of schooling: the correlation (r) between the sizes of the weighted knowledge scores in table 1 and the sizes of the nine β s for education in table 2 is $-.61$ ($P = .079$; $N = 9$), with the correlation using nonzero scores almost the same ($-.59$).

We cannot disentangle media and school effects very well, but since some effects on knowledge are concentrated in a very young part of the population (Laika) and other effects show relatively little specificity by age (the Virgin Lands Campaign), we suspect that teaching through the media is at least as important as teaching in schools.

CONCLUSION

Our study focused on two factors that influenced knowledge of past events by ordinary Russians in 1994: their education, represented by years of

³⁸ A significant cohort-education interaction ($P < .001$) when graphed indicates that it is lower educational levels whose knowledge appears especially traceable to the time of Stalin's announcement of the Doctors' Plot; at higher educational levels, knowledge is not so tied to the date of Stalin's fabricated claim.

³⁹ This cannot be the whole story, since especially for Laika and Katya Lycheva there are many Russians in the critical cohorts who were scored zero. However, urban/rural location and advanced education also contribute to scores; for Katya Lycheva, e.g., ignorance disappears almost completely among the small number of young, highly educated Muscovites.

schooling, and their location in time, represented by birth cohort. Neither is as simple as it appears on first consideration.

Education

Events like the dog Laika's orbit in *Sputnik 2* were favorable to the reputation of the Soviet regime and therefore publicized by the state-controlled media and schools. Knowledge of these events has a relatively low correlation with years of schooling, because most Russians were exposed to them early on regardless of their eventual educational attainment. Other events, like Solzhenitsyn's novel, suppressed over a long period by the regime, show stronger associations with educational attainment. This is not because they were studied at higher levels of schooling, but because individuals who achieved advanced education could develop the critical capacity and resources to gain information about the world in ways not sanctioned by the regime. Individuals with high levels of education are less limited to their own personal experience, and in this sense education acts to reduce cohort effects.

Our distinction between two meanings of education is a relative one, for all events show a significant and monotonic association between years of schooling and knowledge. But the distinction suggests that even in a society where the state controls virtually all forms of media and instruction, those who develop greater cognitive sophistication can acquire knowledge beyond and around officially available information. This should be even more true today with the increasing difficulty of closing a country's borders to satellite broadcasting and to the Internet, both of which are apt to be most accessible to those with greater education. Moreover, to the extent that greater cognitive sophistication develops, restraints are placed on the kind of elite manipulation of collective memory that is described by historians like Bodnar (1992) and Hobsbawm and Ranger (1983).

Age

Our findings about age-related effects are more complex and require consideration of three distinct processes, though more than one might operate at the same time. One process is essentially a period effect: individuals alive when an event occurs are more knowledgeable than those born even soon after the event has ended. In our data, we find evidence that this process applies to knowledge of Laika, the Cuban Missile Crisis, *One Day in the Life of Ivan Denisovich*, the Yezhovshchina, the Twentieth Congress of the CPSU, and the Doctors' Plot. Its application to the Prague

Spring is more uncertain, and it is difficult to apply at all to Katya Lycheva and the Virgin Lands Campaign, since no respondents in our sample were born after the two events ended.

Cohort effects of two different kinds point to the other two processes. One, which is limited but clear in our data, is the intrinsic interest that certain events hold for particular age groups. This is shown most dramatically for two events, both of which were simple in nature and highly publicized by the government: the dog Laika, known especially by those who were very young children at the time, and the girl diplomat Katya Lycheva, where knowledge is highest among those who were adolescent girls at the time. Earlier findings on Americans' knowledge of the Vietnam War and of Woodstock also point to the importance of event content for particular ages (Jennings 1996; Schuman et al. 1997).

Our strongest evidence for the other process—adolescence and early adulthood as a generic critical developmental stage for acquiring knowledge and therefore producing later cohort effects—occurs with the novel *One Day in the Life of Ivan Denisovich*. The publication of Solzhenitsyn's writings toward the end of glasnost seems to have aroused interest and created knowledge specifically for young Russians. Since neither the novel nor other works by Solzhenitsyn had special relevance to youth as such, it seems likely that knowledge in this case reflects the classic primacy process discussed by Mannheim. We can state as a further proposition that it is primarily at a point of radical change that new ideas are especially appealing to youth. During such periods, older people can still cling for a time to the world as they knew it, but those too young to be anchored in the past are open to learning quickly from new events. As Swidler (1986) argues, it is precisely the young who bear the lowest costs of acquiring new "strategies of action" that may be symbolized by cultural knowledge during unsettled times.⁴⁰

We also found evidence for more subtle cohort effects in the detailed content of knowledge; for example, even though the Great Purge of the 1930s is widely known among Russians from different cohorts, the older Russians we interviewed focused more on those who were victims of the Purge and younger Russians more on those who were the perpetrators. Subtle cohort differences within larger period effects occurred as well for knowledge of the Virgin Lands Campaign and of the Doctors' Plot.

⁴⁰ A further example by Norbert Elias that is analogous to the Russian case concerns the shift toward "informalization" by young Germans to distinguish themselves from Germans who had lived through World War II and the end of the Third Reich (Goudsblom and Mennell 1998).

Larger Theoretical Issues

Our findings have implications for several larger issues. First, we have treated our study of collective knowledge as part of broader research efforts on collective memory, yet our results show less evidence of the importance of a critical age than was true of some previous research (e.g., Schuman and Scott 1989; Scott and Zac 1993). There is a significant difference, however, between the two types of inquiry. The earlier work on collective memories allowed respondents to produce their own spontaneous memories of any public events that they personally considered important. Our research on knowledge called for correct accounts of events that *we* chose and presented, regardless of whether they would have occurred to respondents and irrespective of when they happened in the course of or even before a respondent's own lifetime. Thus, personal memories may refer back primarily to experiences during one's adolescence or early adulthood, while objective knowledge more easily spans all the events experienced over a lifetime, as well as reaching backward to a past not directly experienced by the individual.

This distinction suggests that although the term "collective memory" is useful for conceptualizing the broad area into which our and other research falls, the term does not point unambiguously to particular phenomena at either the individual or the cultural level. At the individual level, what are produced as memories, shared or otherwise, are always in part a function of the type of questions posed and of the setting in which the remembering takes place (e.g., as Halbwachs would urge, who else is present). At the cultural level, it is at least equally difficult to specify a unique collective memory: what are said to be "publicly available symbols" are inevitably a function of what particular researchers define as "publicly available." Thus, some information about the Doctors' Plot was available to some Russians at the time it occurred, as well as later during Khrushchev's Thaw, and it was also brought up again openly during glasnost; yet it was not effectively "available" to those too preoccupied with economic survival to be attentive, or to those living in rural areas cut off from discussions in urban Russia, or to others for many different reasons. Both at the individual and the cultural level, what is seen to be a particular collective memory is always partly—though certainly not wholly—a function of decisions made by the researcher.

Certain of our results also have implications for another issue involving collective memory: the debate over "presentism"—the question of how much our knowledge about the past is constructed to meet present needs and problems, without much concern for objective information about past events (Schwartz 1990). We found that at least for older Russians, the past was retained in their memories of Khrushchev's role in the Virgin

Lands Campaign, even though during the long years after his ouster the Soviet government made an effort to connect the campaign exclusively to Brezhnev. Such official efforts at redefinition had their major impact on young people learning about the campaign for the first time, but did not change the knowledge of those whose learning dated from an earlier point. Similarly, older Russians retained knowledge of the anti-Semitic emphasis of the Doctors' Plot, but younger Russians assimilated the plot to Stalinist purges more generally and were ignorant of its anti-Semitic focus. Thus, crucial information about the past is most easily lost when cohorts who directly experienced an event are replaced by new cohorts who can learn about it only secondhand.

Does our study of the knowledge of a cross-section of Russians tell us anything about their attitudes and actions toward a new event? Sociologists working in the area of neoinstitutionalism call for connecting norms and beliefs to actions in institutional contexts (Nee 1998). We were able to investigate one such possible connection: that between knowledge of the Great Purge of the 1930s and self-reported voting preference in the 1993 Russian parliamentary election. Virtually all correct/partly correct responses about the Great Purge had treated it as a time of persecution and repression; hence we hypothesized that those who showed the most knowledge of that traumatic time should have been most likely to favor democratically oriented parties in the 1993 election. We used logistic regression to predict voting preference for the most democratic parties ($N = 410$) versus all other positions ($N = 2,011$ for centrists, communists, nationalists, and nonvoters combined), controlling for age, education, gender, and urban/rural location, and found the hypothesized relation ($P < .03$). If the democratic and centrist parties are combined in order to increase the N of voting in a relatively democratic direction, the relation is still more reliable ($P < .001$). Although any such correlational result is open to more than one causal interpretation, the finding is consistent with the proposition that knowledge of this single but important event from the 1930s had implications for behavior in an institutional context in 1993.

Finally, we should acknowledge that our conclusions about collective knowledge are based on asking about nine specific events in one country at one point in time, albeit with some support from previous studies. How far the results can be generalized to other cases remains to be seen. But in emphasizing the importance of personal experience in all three types of age-related processes, we return to the spirit of Mannheim's larger theoretical exposition of generational effects. More crucial to his approach than the focus on a "critical age" was the distinction of "generation as an actuality" from generation as "a mere location phenomenon" (1952, p. 303)—with the former requiring "participation in [a] common destiny." That distinction invites the emphasis on event meaning that we have used

to modify a purely developmental approach to understanding how knowledge is acquired and remembered.

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