

# Molding the Past: Biased Assimilation of Historical Information<sup>1</sup>

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The present study examined whether individuals' current political worldviews would bias perceptions of historical information gathered over the course of their lifetime. Kent State University students from 1995 and 2000 reported their political ideologies (e.g., conservative, liberal) and responded to items assessing their culpability and global attributions about the shooting of demonstrators by the National Guard at Kent State in 1970. The 1995 data revealed consistent support for biased responding to culpability and global attribution items. The 2000 data replicated the political ideology differences of the 1995 data. However, by including knowledge of the incident as an independent variable, the 2000 data revealed that the political ideology bias was strongest among people reporting high knowledge about the event.

*The very ink with which all history is written is  
merely fluid prejudice*

—Mark Twain

Our subjective view of the world affects the way we subsequently process information relevant to that worldview. In other words, rather than objectively examining all the facts and evidence before solidifying an overarching worldview, we often examine the facts through glasses that are already tinted by preexisting beliefs, attitudes, and ideologies. For anecdotal evidence of this effect, one need only open history books and read the opposing accounts of events such as the arrival of Christopher Columbus in the New World, President John F.

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Kennedy's assassination, and the Watergate scandal of Richard Nixon's White House.

In their seminal study, Hastorf and Cantril (1954) provided an empirical demonstration of this phenomenon. They showed that Princeton and Dartmouth students perceived the events of an important and rough football game between the two rivals very differently. Ratings of the number of infractions committed by each team suggested that Princeton students saw a game in which Princeton players were victims of the aggressive thuggery perpetrated by the Dartmouth players. Dartmouth students, of course, saw just the opposite. Presumably, students at each school believed or wanted to believe that their own team would exhibit good sportsmanship during the course of the game. Thus, any ambiguous incident during the game was interpreted as being consistent with students' views of their own team.

A well-known study that exemplifies the tendency for people to be biased by their prior attitudes was conducted by Lord, Ross, and Lepper (1979). Participants were asked to evaluate mixed scientific information. Scientific studies that confirmed participants' attitudes were rated more positively than were studies that disconfirmed participants' attitudes. Lord et al. termed this phenomenon *biased assimilation* and suggested that it was associated with *attitude polarization*, the tendency for participants to perceive that their attitudes had become stronger (i.e., more extreme) as a result of reading the mixed information.

Numerous conceptual replications of Lord et al.'s (1979) study have been conducted in psychology laboratories (e.g., Edwards & Smith, 1996; McHoskey, 1995; Miller, McHoskey, Bane, & Dowd, 1993; Munro & Ditto, 1997; Zuwerink & Devine, 1996). In these studies, researchers typically provide college undergraduates with materials about a social issue or event (e.g., death penalty, President Kennedy's assassination). The materials are often crafted in such a way that the "correct" interpretation is open to debate. Researchers then examine whether participants assimilate information in a manner consistent with their particular worldviews. Studies of this nature have consistently confirmed the biased-assimilation effect reported by Lord et al.

Although demonstrations of biased assimilation in psychological laboratories have been numerous, it has only been recently that researchers have begun to examine participants' evaluations of current events as they are unfolding. For example, Munro et al. (2002) examined participant reactions during the first 1996 U.S. Presidential debate between Bill Clinton and Bob Dole. They found that, compared to Dole supporters, those who were leaning toward Clinton prior to the debate thought that Clinton provided stronger arguments during the debate and were more likely to report that Clinton won the debate.

Ahluwalia (2000) conducted a field study to examine biased assimilation among Clinton supporters and detractors during 9 months of the Clinton-

Lewinsky investigation. Supporting the biased-assimilation hypothesis, Clinton supporters were more likely to label Lewinsky as untrustworthy and were less likely to assert that the President had lied under oath than were participants who identified themselves as supportive of another candidate during the 1996 Presidential election. It is important to note that in both of these studies, participants were not provided with information constructed by the researchers, but rather, were exposed to naturally occurring real-world information as it happened.

The nature of the stimuli utilized by Munro et al. (2002) and Ahluwalia (2000) represent an important step in the evolution of the biased-assimilation literature. Munro et al. brought students in to watch a live broadcast of the first 1996 Presidential debate. Ahluwalia went a step further and relied on the media exposure participants encountered as part of their everyday lives during 9 months of the Clinton–Lewinsky investigation. Each study provided evidence that the biased-assimilation effect would occur when participants were exposed to more naturalistic stimuli, as opposed to relying on the carefully constructed scenarios typically used in prior laboratory studies.

Although the aforementioned field research has given us insights into the short-term processing of current events, there has been a paucity of research on the processing of real-world information gathered over the course of one's lifetime. One approach to answering this question would be to conduct a longitudinal analysis of participants' reactions to information supplied by researchers. Although this design would have high internal validity, it would not resemble the actual means by which people are exposed to information throughout the course of their lives. People are rarely exposed to all the information about a particular event or topic during one session; but rather, receive bits and pieces of information over the course of days, months, or even years.

The primary goal of the current research is to test whether the biased-assimilation effect will extend to processing of historical information that has been gathered over the course of one's lifetime. In this way, the current research will further extend the external validity of the biased-assimilation research, while also shedding light on how important attitudes tend to be so resistant to change (Munro & Ditto, 1997; Zuwerink & Devine, 1996). The biased assimilation of historical information may be crucial in allowing people to find support for certain kinds of attitudes that are important to them (e.g., sociopolitical attitudes). By molding our perceptions and subsequent causal inferences into a story that is more consistent with our worldview, we resist having to change our overarching sociopolitical attitudes in the face of potentially attitude-disconfirming information. This revisionist view of the process by which people create meaning out of important historical incidents may explain the disagreement and strife between opposing sides of the political spectrum when examining the seemingly objective evidence that "history" provides us.

### The Historical Event

The Vietnam War had and continues to have a divisive effect on American society. This may have been most evident on college campuses during the height of U.S. involvement in Southeast Asia. When it was announced that U.S. troops had invaded Cambodia, protests and demonstrations occurred on many campuses, including Kent State University. However, at Kent State (as well as Jackson State), tension between demonstrators protesting the escalation and National Guardsmen who had been summoned to prevent community and campus property damage escalated to tragedy. On May 4, 1970, the National Guard opened fire on the demonstrators at Kent State, injuring nine and killing four.

In the days and years following the shootings at Kent State University, numerous theories regarding the cause of this landmark historical event have been proposed (e.g., Gordon, 1995; Hensley & Lewis, 2000; Kelner & Munves, 1980; Michener, 1971). For example, soon after the event, the Kent State faculty issued a statement placing the ultimate blame on various federal, state, local, and university officials (Hensley & Lewis, 2000). The role of the Guardsmen has also been the focus of debate. The U.S. President's Commission on Campus Unrest (1970), headed by William Scranton, concluded that the rifle fire was "unnecessary, unwarranted, and inexcusable" (p. 289). Davies (1973) went a step further and revealed that there was even credible evidence to suggest that the Guardsmen had acted deliberately in retaliation for their treatment by the protesters. On the other hand, letters to the local newspaper from residents tended to be in favor of the mayor and the Guardsmen, asserting that they simply responded in self-defense to the aggressive attacks of radical protesters (Casale & Paskoff, 1971). There was even talk that a rooftop sniper had fired on the Guardsmen, thereby causing the ensuing tragedy (Hensley & Lewis, 2000). How is it that people came to such differing conclusions based on the same set of facts?

One potential variable that could have influenced people's impressions of the May 4th tragedy is political ideology. *Political ideology*, a complex system of political attitudes and values, could bias the way relevant information is processed such that it is molded and manipulated to be consistent with the overarching political ideology. It would seem to be much easier to alter the new, potentially disconfirming information and assimilate it to one's overarching attitude than to accommodate one's preexisting (and more complex) attitude in order to accept the new information (Festinger, 1957).

Thus, the current research is designed to determine whether participants assimilated information regarding the events surrounding May 4, 1970, in a biased fashion as a function of their self-described political ideology. It is important to note that we did not provide participants with any information about the events surrounding the May 4th tragedy, but rather, we relied on the information they had been exposed to during the course of their lifetime.

## Original May 4, 1970, Survey

Some of the evidence that bears on this research question was collected in a survey of approximately 7,000 Kent State students conducted in the 7 weeks immediately following the May 4th incident (Taylor, Shuntich, McGovern, & Genther, 1971). The primary purpose of the original study was "to evaluate the perceptions, feelings, attitudes, and reactions of as many students as possible, concerning the events which took place during those first four days in May" (Taylor et al., 1971, preface). Although the research goals were much more general and broad-based than those of the current study, several findings warrant discussion. First, Taylor et al. provided evidence that students' perceptions and opinions of the incident varied among radicals, liberals, moderates, and conservatives. For example, among observers of the event, 0% of radicals, 6% of liberals, 24% of moderates, and 45% of conservatives felt that the National Guard was under extreme provocation by the demonstrators. The same pattern of findings was found for survey items assessing who respondents thought fired the first shot and how justified the Guard was in firing at the demonstrators.

Although these data are rich with descriptive information, they cannot be used to test the hypothesis that political ideology would bias people's perceptions of historical information collected over the course of their lifetime. First, the interpretation of the findings was of a post hoc nature. Second, no hypothesis tests were performed because of the fact that the original data were destroyed to protect the anonymity of the respondents soon after being collected and tallied. Third, and most importantly, to Taylor et al.'s respondents, the incident did not constitute a historical event, but rather a current event. However, many of the same questions from the 1970 survey were used in the current research to examine whether the same biased-assimilation pattern present in the 1970 data would replicate itself with contemporary students, for whom the tragedy is a historical event.

## Study 1

Participants in Study 1 were students at Kent State University during the spring semester of 1995, in which the 25th anniversary of the tragedy occurred. The survey contains a series of items assessing the demographics of the participants, culpability attributions for the tragedy, and global attributions about the broader significance of the incident. Included among the demographic items is a question asking survey respondents about their political ideology. It is hypothesized that participants' attributions about the Kent State shootings will differ as a function of their political ideology. We predict that self-defined liberals will hold beliefs and attitudes about the event consistent with the perspective that the National Guard was to blame for the tragedy, while self-defined conservatives will hold beliefs and attitudes that place blame on the radical protesters.

### Method

*Participants.* Researchers collected surveys from 730 Kent State University students. The sample was reasonably representative of the general student population. For example, 37.2% of the sample were under 20 years of age, 31.4% were between 20 and 21 years, and 31.4% were over the age of 21 years. There was a good distribution of first-year students (34.3%), sophomores (21.1%), juniors (17.2%), seniors (23.3%), and graduate students (4.1%). The sample was, however, somewhat skewed with regard to gender (67.2% female).

*Procedure.* Data were collected at the Kent State University main campus (Kent, Ohio) during the 2 weeks leading up to the 25th anniversary of the May 4, 1970, tragedy. Participants were solicited from classes typically taken by sophomores, juniors, and seniors (e.g., Child Psychology, Abnormal Psychology). In addition, data collection at the University Student Center food court was undertaken in order to solicit students who were not psychology majors. In each case, students were instructed not to complete the survey more than once.

*Questionnaire.* The anonymous survey utilized in the current study contains several items that are virtually identical to those asked of students 25 years earlier. The survey included 12 items to assess participants' culpability attributions about the incident. Of these questions, 4 are measured on nominal scales. These items include, "Who do you think fired the first shot?"; "Do you believe the Guard was about to be 'overrun' by demonstrators?"; "Did the Guard give a warning before shooting?"; and "Do you believe the Guard was guilty of murder?" The remaining 8 questions were assessed on 5-point parametric scales. Participants were asked, "Do you feel at the time of the shooting the National Guard was being provoked?" (1 = *no provocation* to 5 = *extreme provocation*); and "How justified do you think the Guard was in firing at the demonstrators?" (1 = *not at all* to 5 = *very justified*). Students were also asked to rate "the degree to which you believe the following people were responsible for the incident on Monday, May 4, 1970" (1 = *not at all responsible* to 5 = *very responsible*). Targets included President Nixon, Governor Rhodes, officers of the National Guard, enlisted members of the National Guard, demonstrators, and President White (University President at the time).

There were 5 parametric questions that assessed participants' global attributions about the incident. Participants were asked whether they agreed (1 = *disagree strongly* to 5 = *agree strongly*) that the Kent State incident and others like it indicated a need for "increased police," "violent revolutionary change," and "new and stronger restrictions against dissent." Students were also asked whether the "disturbances at Kent State were the result of a conspiracy of student revolutionaries" and if "student unrest on campuses at that time was the result of a communist conspiracy."

Participants also responded to demographic questions such as age, gender, and year in college. Most importantly, they indicated their political ideologies (radical, liberal, moderate, or conservative).

### Results

*Design overview.* In order to test the hypothesis that participants' culpability attributions and global attributions would differ as a function of self-reported political ideology, chi-square tests of independence were conducted on the frequency data and MANOVAs were conducted on the parametric data. For each analysis, political ideology was used as the independent variable.<sup>3</sup> The three levels of political ideology included in the analyses were liberals, moderates, and conservatives. Radicals were not included in the analysis for two reasons. First, very few people identified themselves as radicals ( $n = 12$ ), as compared to liberals ( $n = 256$ ), moderates ( $n = 289$ ), or conservatives ( $n = 152$ ). Second, a great deal of variability existed among those calling themselves radicals. It is possible that the term *radical* does not carry the same meaning as it did in 1970 when it clearly described someone whose political ideology was to the left of liberal. In 1995, the term seemed to apply to anyone with extreme political views, either to the left or to the right.

*Culpability attributions.* There were 12 culpability attribution measures. The items assessing who fired the first shot, whether or not the National Guard was about to be overrun by demonstrators, whether or not the National Guard gave warning before firing, and whether or not the National Guard was guilty of murder were measured on nominal scales. Chi-square tests support the hypotheses for all of these items (Table 1). A higher percentage of conservatives (18.1%) than moderates (11.9%) or liberals (7.5%) responded that the first shot was fired by demonstrators,  $\chi^2(4, N = 687) = 10.90, p < .05$ .<sup>4</sup> Similarly, a higher percentage of conservatives (17.8%) than moderates (11.4%) or liberals (10.6%) responded that the National Guard was about to be overrun by the demonstrators,  $\chi^2(4, N = 695) = 14.12, p < .01$ . Also, a higher percentage of conservatives (39.7%) than moderates (32.4%) or liberals (27.3%) believed that the National Guard gave warning before firing,  $\chi^2(2, N = 670) = 6.53, p < .05$ . Consequently, a higher percentage of liberals (61.7%) than moderates (41.5%) and

<sup>3</sup>A set of analyses was conducted with gender included as an independent variable. These analyses generally revealed a gender main effect. This main effect can be attributed to the fact that the political ideology of females, relative to males, was skewed toward the liberal side. Importantly, there were no significant gender by political ideology interactions. Thus, because the researchers were interested in studying political ideology rather than gender differences, gender was eliminated from the reported analyses.

<sup>4</sup>The variation in the number of respondents for each analysis was because some participants chose not to answer certain questions.

Table 1

*Percentage of Study 1 Category Responses Split by Political Ideology*

	Political ideology		
	Liberal	Moderate	Conservative
Fired first shot		$\chi^2 = 10.90^*$	
National Guard	88.1	82.9	78.5
Demonstrators	7.5	11.9	18.1
Other	4.4	5.2	3.4
Guard was overrun		$\chi^2 = 14.12^{**}$	
Yes	10.6	11.4	17.8
No	69.7	60.6	52.6
Unsure	19.7	28.0	29.6
Guard gave warning		$\chi^2 = 6.53^*$	
Yes	27.3	32.4	39.7
No	72.7	67.6	60.3
Guard guilty of murder		$\chi^2 = 46.99^{***}$	
Yes	61.7	41.5	36.9
No	15.4	23.0	38.9
Unsure	22.9	35.5	24.2

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ , for chi-square analyses.

conservatives (36.9%) believed that the National Guard were guilty of murder,  $\chi^2(4, N = 689) = 46.99, p < .001$ .

There were eight items measured on parametric scales. The MANOVA assessing the political ideology group differences on the combined set of these eight culpability attribution measures reveals a significant difference,  $F(16, 1326) = 5.14, p < .001$ .<sup>5</sup> As can be seen in Table 2, univariate tests support the hypotheses for seven of the eight items. Conservatives believed that there was a greater amount of provocation by the demonstrators than did liberals. Conservatives also reported believing that the National Guard was more justified in their actions than did liberals. Students also differed in their assessment of responsibility as a function of political ideology. Specifically, conservatives assigned greater responsibility to the demonstrators than did liberals; while liberals assigned

<sup>5</sup>The reported results from all MANOVAs use Hotelling's trace criterion. The findings were virtually identical when Wilks's lambda or Pillai's trace criterion was substituted.



Table 2

*Means of Study 1 Measures Split by Political Ideology*

	Political ideology						<i>F</i>
	Liberal		Moderate		Conservative		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<b>Culpability attributions</b>							
Provocation	2.63	1.05 <sub>a</sub>	2.86	1.01 <sub>b</sub>	3.14	1.24 <sub>c</sub>	10.49***
Justification	1.57	0.99 <sub>a</sub>	1.84	1.07 <sub>b</sub>	2.30	1.45 <sub>c</sub>	18.96***
Governor Rhodes	3.29	1.23 <sub>a</sub>	3.08	1.17 <sub>ab</sub>	2.87	1.23 <sub>b</sub>	5.62**
Demonstrators	2.97	1.19 <sub>a</sub>	3.38	1.14 <sub>b</sub>	3.58	1.23 <sub>b</sub>	14.48***
President White	2.92	1.14 <sub>a</sub>	3.08	1.16 <sub>a</sub>	2.83	1.26 <sub>a</sub>	2.56
Officers	4.27	0.99 <sub>a</sub>	4.15	1.00 <sub>a</sub>	3.73	1.33 <sub>b</sub>	12.33***
Enlisted members	3.41	1.28 <sub>a</sub>	3.30	1.25 <sub>a</sub>	2.93	1.32 <sub>b</sub>	6.99**
President Nixon	3.30	1.28 <sub>a</sub>	3.10	1.27 <sub>a</sub>	2.62	1.34 <sub>b</sub>	13.06***
<b>Global attributions</b>							
Communist conspiracy	1.89	1.16 <sub>a</sub>	2.08	1.10 <sub>ab</sub>	2.26	1.17 <sub>b</sub>	4.87**
Student revolutionaries	2.15	1.25 <sub>a</sub>	2.58	1.25 <sub>b</sub>	2.76	1.29 <sub>b</sub>	12.75***
Increased police	2.15	1.30 <sub>a</sub>	2.40	1.25 <sub>ab</sub>	2.64	1.39 <sub>b</sub>	6.78**
Revolutionary change	2.21	1.35 <sub>a</sub>	2.10	1.26 <sub>a</sub>	2.41	1.35 <sub>a</sub>	2.69
Restrictions against dissent	2.25	1.26 <sub>a</sub>	2.36	1.22 <sub>a</sub>	2.66	1.25 <sub>b</sub>	5.35**

*Note.* Means and standard deviations with shared subscripts are not significantly different according to Tukey's HSD test.

\*\* $p < .01$ . \*\*\* $p < .001$ , for univariate analyses.

greater responsibility to Governor Rhodes, the officers, enlisted members of the National Guard, and President Nixon than did conservatives. In each case, the mean responses of moderates fell between those of liberals and conservatives.

*Global attributions.* The MANOVA on the five items assessing students' global attributions about campus and societal change reveals a significant difference,  $F(10, 1346) = 3.96, p < .001$ . As can be seen in Table 2, univariate tests support the hypotheses for four of the five items. Relative to liberals, conservatives

reported stronger agreement that student unrest on campuses at that time was the result of conspiracy by either communists or student revolutionaries. Moreover, conservatives were more apt to report, relative to liberals, that the Kent State incident indicates a need for increased police and stronger restrictions against dissent. Again, the mean responses for moderates were between those of liberals and conservatives.

### *Discussion*

It was predicted that culpability and global attributions regarding the May 4th tragedy would differ as a function of self-reported political ideology. The results of Study 1 provide strong support for the hypotheses. Self-identified conservatives were significantly less likely than their liberal counterparts to hold the National Guard and various government officials responsible for the incident, instead placing blame on the demonstrators. Moreover, when assessing the societal implications of the event, conservatives were more supportive of government institutions than were their liberal counterparts. Thus, it can be concluded with some confidence that people's political worldviews are reliably associated with their attributions about historical information gathered over the course of their lifetime.

### Study 2

One alternative explanation for the results found in Study 1 is that the varying levels of knowledge about the event itself, not political ideology, produced attributional differences among the participants. For example, it is possible that liberals have a greater degree of knowledge about the May 4, 1970, incident, and that this greater knowledge explains the different attributions and opinions about the event compared to conservatives.

One set of results found by Taylor et al. (1971) among observers of the May 4th incident support the possibility of a knowledge alternative explanation. Specifically, students were less likely to support the actions of the National Guard the closer they were to the actual shootings. Because liberals were probably more likely to be participants or observers to the shootings, this finding may seem to be more evidence for the political ideology explanation. However, the finding was most pronounced among conservative students. For example, 55% of the conservative nonobservers of the incident felt that the National Guard was under extreme provocation by the demonstrators. However, only 45% of conservatives endorsed extreme provocation when they observed the event, and only 28% endorsed extreme provocation when they observed the event from within 500 feet of the shooting.

A similar set of results was obtained when conservatives were asked whether the shootings were justified (37% of nonobservers, 24% of observers, and 7% of

observers within 500 feet felt the shootings were very justified). Although there may be many reasons why attributions of culpability shifted as a function of physical distance from the shootings, one parsimonious explanation is that the closer bystanders were to the shootings, the more information they had at their disposal and the greater their subsequent knowledge about the event. Consequently, in this case, it may have been much more difficult for conservatives to reject the liberal perspective of the May 4th events.

The second study was conducted to address the possibility that knowledge could alternatively explain the results of Study 1. Specifically, in Study 2, respondents were asked to indicate the amount of knowledge they had about the May 4th incident. According to the knowledge alternative explanation, participants with self-professed high knowledge of the May 4th incident should, compared to their low-knowledge counterparts, adopt a more liberal interpretation, regardless of political ideology. In addition to addressing this alternative explanation, a second purpose of Study 2 is to determine if the results of Study 1 will replicate using a separate sample.

### *Method*

*Participants.* The second study was conducted at Kent State University during the 2 weeks leading up to the 30th anniversary of the May 4, 1970, tragedy. This time period was chosen because it would most closely match the conditions present during Study 1 (which took place during the 25th anniversary). Researchers collected data from 329 Kent State University students. As in Study 1, the sample was reasonably representative of the general student population (although again it was skewed with respect to gender). Political ideology was distributed in a similar manner to Study 1 (radical,  $n = 11$ ; liberal,  $n = 131$ ; moderate,  $n = 111$ ; conservative,  $n = 61$ ).

*Procedure and questionnaire.* The procedure was identical to the one used in Study 1. An additional question measured on a 5-point parametric scale was added to the questionnaire used in Study 1. Participants were asked "How knowledgeable do you feel you are about the events surrounding May 4, 1970?" (1 = *very knowledgeable* to 5 = *not at all knowledgeable*).

### *Results*

*Design overview.* In order to test the hypothesis that participants' culpability attributions and global attributions would differ as a function of either self-reported political ideology, knowledge, or the interaction of these variables, chi-square tests of independence were conducted on the frequency data, and MANOVAs were conducted on the parametric data. For the purpose of data analysis, the knowledge variable was recoded from a 5-point scale into a three-item

scale. Individuals who responded that they were either *not at all knowledgeable* or *minimally knowledgeable* about the May 4th tragedy were classified as low knowledge of the May 4th event (liberal,  $N = 45$ ; moderate,  $N = 39$ ; conservative,  $N = 25$ ). Participants who responded that they were *somewhat knowledgeable* were classified as having medium knowledge (liberal,  $N = 50$ ; moderate,  $N = 30$ ; conservative,  $N = 19$ ). Finally, those individuals who characterized themselves as being *moderately knowledgeable* or *very knowledgeable* of the incident were classified as having high knowledge (liberal,  $N = 36$ ; moderate,  $N = 42$ ; conservative,  $N = 17$ ).

Recoding the data in this fashion facilitated data analysis by creating categories that had a similar number of participants (low,  $N = 109$ ; medium,  $N = 99$ ; high,  $N = 95$ ), contained enough individuals to permit data analysis, and simplified interpretation of the results. It is important to recognize that the knowledge variable assessed participants' self-professed knowledge of the tragedy. No attempt was made to assess participants' actual knowledge of the shooting because of the fact that the events surrounding the incident are still somewhat ambiguous (Hensley & Lewis, 2000).

*Culpability attributions.* The four nominal culpability attribution items were analyzed using chi-square tests. Separate two-way analyses examined the percentage of participants responding to each item as a function of political ideology and knowledge of the May 4th incident. In an attempt to examine the interaction between political ideology and knowledge, a series of two-way chi-square tests was used to examine the percentage of participants responding to questionnaire items as a function of political ideology for each value of the knowledge variable (i.e., low, medium, high).

As represented in Table 3, the results of the two-way chi-square analyses of culpability attribution items and political ideology reveal an overall pattern of findings that replicated the findings reported in Study 1. Although the question assessing who fired the first shot was only marginally significant, it was in the expected direction,  $\chi^2(4, N = 302) = 8.64, p = .07$ . A marginally higher percentage of conservatives (16.4%) than liberals (4.6%) reported that the demonstrators fired the first shot. Similarly, a higher percentage of conservatives (16.7%) than liberals (7.6%) responded that the National Guard was about to be overrun by the demonstrators,  $\chi^2(4, N = 300) = 10.59, p < .05$ . Likewise, a higher percentage of conservatives (39.3%) than liberals (20.6%) believed that the National Guard gave warning before firing,  $\chi^2(2, N = 302) = 8.00, p < .05$ . Finally, a higher percentage of liberals (60.5%) than conservatives (40.0%) believed that the National Guard was guilty of murder,  $\chi^2(4, N = 300) = 11.55, p < .05$ . In each case, the percentage of moderates endorsing an item fell between the liberals and the conservatives.

The results of the two-way chi-square analyses of culpability attribution items and knowledge of the May 4th shootings provide mixed support for the

Table 3

*Percentage of Study 2 Category Responses Split by Political Ideology and Knowledge*

	Political ideology			Knowledge		
	Liberal	Moder- ate	Conser- vative	Low	Medium	High
Fired first shot	$\chi^2 = 8.64$			$\chi^2 = 1.62$		
National Guard	91.5	87.4	77.0	87.0	87.9	86.3
Demonstrators	4.6	9.0	16.4	9.3	9.1	7.4
Other	3.8	3.6	6.6	3.7	3.0	6.3
Guard was overrun	$\chi^2 = 10.59^*$			$\chi^2 = 26.82^{***}$		
Yes	7.6	12.8	16.7	13.0	5.1	16.0
No	71.8	59.6	48.3	49.1	66.3	74.5
Unsure	20.6	27.5	35.0	38.0	28.6	9.6
Guard gave warning	$\chi^2 = 8.00^*$			$\chi^2 = 11.27^{**}$		
Yes	20.6	23.6	39.3	36.7	19.4	18.9
No	79.4	76.4	60.7	63.3	80.6	81.1
Guard guilty of murder	$\chi^2 = 11.55^*$			$\chi^2 = 26.27^{***}$		
Yes	60.5	46.8	40.0	39.3	61.2	54.7
No	15.5	25.2	35.0	18.7	20.4	30.5
Unsure	24.0	27.9	25.0	42.1	18.4	14.7

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ , for chi-square analyses.

knowledge alternative explanation (Table 3). Recall that it was predicted that participants who expressed high knowledge of the May 4th incident should, compared to their low-knowledge counterparts, adopt a more liberal interpretation, regardless of political ideology.

The question assessing who fired the first shot did not produce any differences among individuals of varying degrees of knowledge,  $\chi^2(4, N = 302) = 1.62, p = .81$ . A greater percentage of individuals with high knowledge (74.5%) responded that the National Guard was not about to be overrun by the demonstrators than did those with medium (66.3%) or low (49.1%) knowledge,  $\chi^2(4, N = 300) = 26.82, p < .001$ . Similarly, a greater percentage of low-knowledge participants (36.7%) felt that the National Guard gave warning before firing than did medium- (19.4%) or high- (18.9%) knowledge individuals,  $\chi^2(2, N = 302) = 11.27, p < .01$ . Finally,

a smaller percentage of those participants with low knowledge (39.3%) believed that the National Guard was guilty of murder than did medium- (61.2%) or high- (54.7%) knowledge individuals,  $\chi^2(4, N = 300) = 26.27, p < .001$ . Also, low-knowledge participants (42.1%) were more likely to report being unsure on this item than were individuals with medium (18.4%) or high (14.7%) knowledge.

The interaction of political ideology and knowledge on culpability attributions was examined through a series of two-way chi-square tests performed on the percentage of participants responding as a function of political ideology for each value of the knowledge variable (i.e., low, medium, high). The question assessing who fired the first shot resulted in no significant differences among the low-knowledge participants as a function of political ideology,  $\chi^2(4, N = 108) = 2.75, p = .60$ . A marginally greater percentage of medium-knowledge conservatives (15.8%) than moderates (13.3%) and liberals (4.0%) reported that the demonstrators fired the first shot,  $\chi^2(4, N = 99) = 8.22, p = .08$ . Among high-knowledge participants, conservatives (23.5%) were more likely to report that the demonstrators fired the first shot than were moderate (4.8%) or liberal (2.8%) participants,  $\chi^2(4, N = 95) = 10.21, p < .05$ . The question assessing whether the National Guard was about to be overrun by demonstrators reveals no significant differences among low-knowledge,  $\chi^2(4, N = 108) = 3.00, p = .56$ ; and medium-knowledge,  $\chi^2(4, N = 98) = 7.43, p = .12$ , participants as a function of political ideology. However, among high-knowledge participants, conservatives (35.3%) were more likely to respond that the National Guard was about to be overrun by demonstrators than were moderate (12.2%) or liberal (11.1%) participants,  $\chi^2(4, N = 94) = 12.96, p < .05$ . Similarly, there were no significant differences among low-knowledge,  $\chi^2(2, N = 109) = 2.07, p = .36$ ; and medium-knowledge,  $\chi^2(2, N = 98) = 2.45, p = .29$ , participants as a function of political ideology when asked whether the National Guard gave a warning before firing. However, among high-knowledge participants, conservatives (41.2%) were more likely to respond that the National Guard gave a warning than were moderate (14.3%) or liberal (13.9%) participants,  $\chi^2(2, N = 95) = 6.66, p < .05$ .

Finally, there were no significant differences among low-knowledge,  $\chi^2(4, N = 107) = 3.80, p = .43$ ; and medium-knowledge,  $\chi^2(4, N = 98) = 5.77, p = .22$ , participants as a function of political ideology when asked whether the National Guard was guilty of murder. However, among high-knowledge participants, conservatives (35.3%) were less likely to respond that the National Guard was guilty of murder than were moderate (50.0%) or liberal (69.4%) participants,  $\chi^2(4, N = 95) = 13.50, p < .01$ .

There were eight items assessing culpability attributions measured on parametric scales. A MANOVA was conducted using political ideology and knowledge of the May 4th incident as independent variables. The analysis reveals a significant main effect for political ideology,  $F(16, 562) = 2.86, p < .001$ . As can be seen in Table 4, univariate tests support the hypotheses for six of

Table 4

*Means of Study 2 Measures Split by Political Ideology*

	Political ideology						<i>F</i>
	Liberal		Moderate		Conservative		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<b>Culpability attributions</b>							
Provocation	2.70	1.03 <sub>a</sub>	2.88	0.97 <sub>ab</sub>	3.15	1.12 <sub>b</sub>	4.51*
Justification	1.45	0.83 <sub>a</sub>	1.85	1.06 <sub>b</sub>	2.25	1.42 <sub>c</sub>	14.82***
Governor Rhodes	3.21	1.25 <sub>a</sub>	3.08	1.00 <sub>a</sub>	2.89	1.29 <sub>a</sub>	1.61
Demonstrators	2.99	1.19 <sub>a</sub>	3.27	1.11 <sub>ab</sub>	3.49	1.18 <sub>b</sub>	5.06**
President White	3.12	1.14 <sub>a</sub>	3.13	0.97 <sub>a</sub>	2.85	1.30 <sub>a</sub>	1.65
Officers	4.34	1.03 <sub>a</sub>	3.95	1.09 <sub>b</sub>	3.70	1.33 <sub>b</sub>	8.24***
Enlisted members	3.39	1.32 <sub>a</sub>	3.24	1.26 <sub>a</sub>	2.66	1.41 <sub>b</sub>	7.38***
President Nixon	3.18	1.19 <sub>a</sub>	3.11	1.33 <sub>ab</sub>	2.66	1.34 <sub>b</sub>	4.57*
<b>Global attributions</b>							
Communist conspiracy	1.74	0.98 <sub>a</sub>	1.94	1.16 <sub>a</sub>	1.92	1.04 <sub>a</sub>	1.17
Student revolutionaries	2.10	1.13 <sub>a</sub>	2.25	1.19 <sub>ab</sub>	2.56	1.52 <sub>b</sub>	2.57
Increased police	2.39	1.17 <sub>a</sub>	2.94	1.22 <sub>b</sub>	3.08	1.31 <sub>b</sub>	9.35***
Revolutionary change	2.34	1.29 <sub>a</sub>	2.18	1.20 <sub>a</sub>	2.15	1.19 <sub>a</sub>	0.87
Restrictions against dissent	2.23	1.12 <sub>a</sub>	2.51	1.24 <sub>ab</sub>	2.84	1.33 <sub>b</sub>	6.45**

*Note.* Means and standard deviations with shared subscripts are not significantly different according to Tukey's HSD test.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ , for univariate analyses.

the eight items. In each case, conservatives were more apt to support the National Guard or various government officials than were liberals. The mean responses of moderates fell in between those of the liberals and conservatives. The remaining two nonsignificant items also reveal a pattern of means consistent with the hypotheses.

A significant main effect for knowledge is also revealed,  $F(16, 562) = 1.71$ ,  $p < .05$ . As can be seen in Table 5, however, univariate tests reveal significance

Table 5

*Means of Study 2 Measures Split by Knowledge*

	Knowledge						
	Low		Medium		High		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<b>Culpability attributions</b>							
Provocation	2.98	0.98 <sub>a</sub>	2.75	1.04 <sub>a</sub>	2.83	1.10 <sub>a</sub>	0.28
Justification	1.76	0.86 <sub>a</sub>	1.71	1.15 <sub>a</sub>	1.80	1.28 <sub>a</sub>	1.39
Governor Rhodes	2.73	1.13 <sub>a</sub>	3.29	1.04 <sub>b</sub>	3.32	1.26 <sub>b</sub>	6.08**
Demonstrators	3.36	1.03 <sub>a</sub>	3.00	1.18 <sub>a</sub>	3.21	1.29 <sub>a</sub>	1.94
President White	2.91	1.09 <sub>a</sub>	3.18	1.11 <sub>a</sub>	3.14	1.15 <sub>a</sub>	1.22
Officers	3.89	1.12 <sub>a</sub>	4.21	1.08 <sub>a</sub>	4.14	1.23 <sub>a</sub>	1.12
Enlisted members	2.93	1.30 <sub>a</sub>	3.28	1.33 <sub>ab</sub>	3.37	1.38	1.26
President Nixon	2.91	1.28 <sub>a</sub>	3.00	1.22 <sub>a</sub>	3.24	1.34 <sub>a</sub>	0.37
<b>Global attributions</b>							
Communist conspiracy	1.94	1.04 <sub>a</sub>	1.85	1.04 <sub>a</sub>	1.74	1.11 <sub>a</sub>	1.27
Student revolutionaries	2.37	1.19 <sub>a</sub>	2.27	1.18 <sub>a</sub>	2.08	1.36 <sub>a</sub>	1.44
Increased police	2.82	1.13 <sub>a</sub>	2.71	1.33 <sub>a</sub>	2.65	1.30 <sub>a</sub>	0.53
Revolutionary change	2.38	1.15 <sub>a</sub>	2.29	1.34 <sub>a</sub>	2.04	1.22 <sub>a</sub>	3.02*
Restrictions against dissent	2.54	1.15 <sub>a</sub>	2.49	1.21 <sub>a</sub>	2.33	1.33 <sub>a</sub>	0.23

*Note.* Means and standard deviations with shared subscripts are not significantly different according to Tukey's HSD test.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ , for univariate analyses.

for only one of the eight items. Participants with medium or high knowledge of the May 4th incident assigned greater responsibility to Governor Rhodes than did their low-knowledge counterparts. There was no consistent pattern among the nonsignificant items.

The significant main effects were qualified by a significant interaction between political ideology and knowledge of the May 4th shootings,  $F(32, 1122) = 1.64, p < .05$ . Univariate analyses reveal that four of the eight culpability items had significant interactions. The question that assessed whether participants



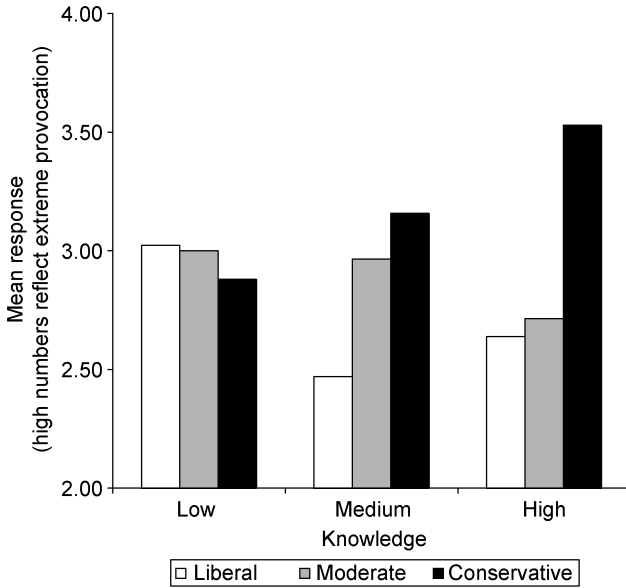


Figure 1. Mean scores of provocation as a function of political ideology and knowledge.

felt the National Guard was being provoked by demonstrators reveals a significant interaction,  $F(4, 289) = 2.72, p < .05$ . While little or no differences between conservatives, moderates, and liberals existed for participants reporting low or medium knowledge of the event, conservatives with high knowledge of the event reported that the National Guard was under greater provocation than did moderates and liberals with high knowledge of the event (Figure 1). As can be seen in Figures 2, 3, and 4, similar findings were revealed when participants were asked whether the National Guard was justified in firing on demonstrators,  $F(4, 289) = 4.66, p < .001$ ; and the degree to which they felt the demonstrators,  $F(4, 289) = 4.73, p < .001$ ; and President Nixon,  $F(4, 289) = 2.42, p < .05$ , were responsible for the May 4th shootings. In each case, the political ideology bias was strongest among students reporting high knowledge of the event.

Post hoc one-way MANOVAs reveal no significant differences as a function of political ideology on the combined set of culpability items among self-professed low-knowledge,  $F(16, 190) = 0.87, p = .61$ ; and medium-knowledge,  $F(16, 172) = 1.21, p = .27$ , individuals. However, there was a significant difference as a function of political ideology among high-knowledge participants on the combined set of culpability items,  $F(16, 168) = 3.29, p < .001$ . Univariate analyses of the significant interactions portrayed in Figures 1, 2, 3, and 4 reveal that self-professed high-knowledge conservatives were significantly more likely

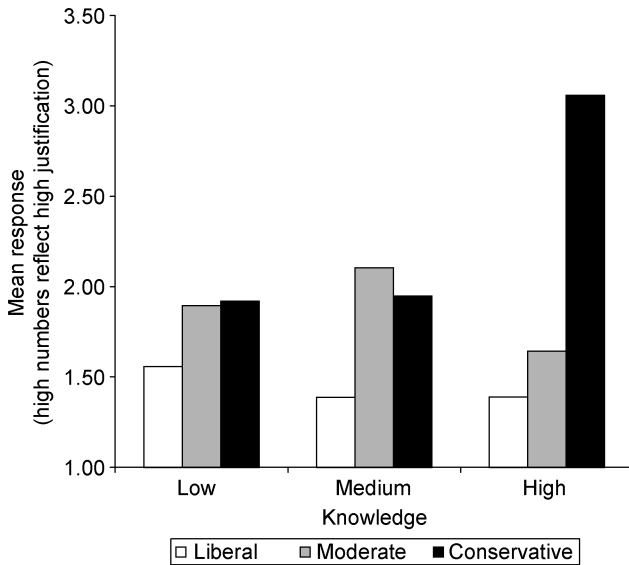


Figure 2. Mean scores of justification as a function of political ideology and knowledge.

to adopt a conservative interpretation of the events surrounding May 4, 1970, than were liberal or moderate high-knowledge participants. This finding runs contrary to the original hypothesis that participants with self-professed high knowledge of the May 4th tragedy should, as compared to their low-knowledge counterparts, adopt a more liberal interpretation, regardless of political ideology.

*Global attributions.* There were five items assessing students' global attributions about campus and societal change. A MANOVA was conducted using political ideology and knowledge as independent variables. The analysis reveals a main effect for political ideology,  $F(10, 568) = 3.70, p < .001$ . As can be seen in Table 4, univariate tests reveal statistical significance for two of the five questions assessing global attributions. Relative to liberals, conservatives were more in agreement that the Kent State incident indicates a need for increased police and stronger restrictions against dissent. Conservatives were marginally more apt to report, relative to liberals, that the disturbances at Kent State were the result of student revolutionaries,  $F(2, 289) = 2.57, p = .08$ . The mean responses of moderates fell in between those of the liberals and conservatives.

The MANOVA does not reveal a significant main effect for knowledge,  $F(10, 568) = 0.96, p = .48$ . As can be seen in Table 5, univariate tests reveal that only one of the five items was significant. Participants with high knowledge of the May 4th incident appeared to be less likely than their low-knowledge counterparts to endorse the assertion that the Kent State incident reveals a necessity for

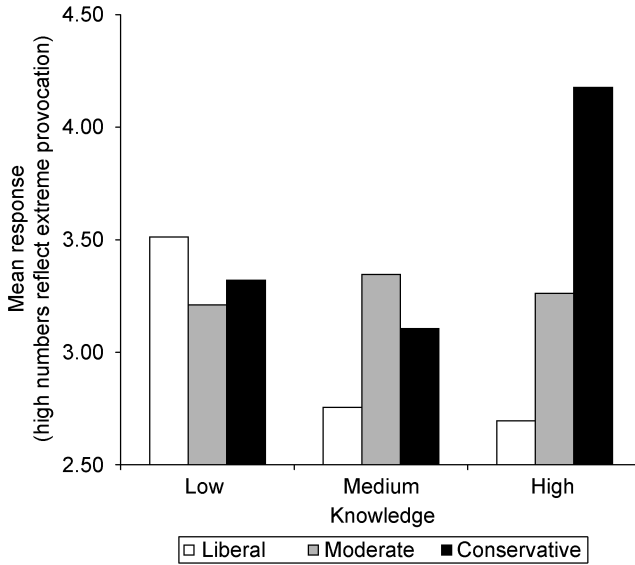


Figure 3. Mean scores of responsibility attributed to demonstrators as a function of political ideology and knowledge.

violent revolutionary change. However, a subsequent Tukey’s HSD analysis reveals no significant differences on this item as a function of knowledge.

The MANOVA reveals a significant interaction between political ideology and knowledge of the May 4th shootings,  $F(20, 1134) = 1.72, p < .05$ . However, of the five global attribution scales, univariate analyses reveal only one significant interaction. When asked whether the Kent State incident indicated a necessity for violent revolutionary change, liberal participants with a self-professed high knowledge of the events surrounding May 4th were significantly more likely to agree with this statement ( $M = 2.44$ ) than were their conservative counterparts ( $M = 1.53$ ). There were no differences on this item among low- or medium-knowledge participants as a function of political ideology.

Discussion

Study 2 was conducted to test a knowledge alternative explanation for the results of Study 1 whereby individuals with high knowledge of the event would endorse a more liberal perspective than their low-knowledge counterparts, regardless of self-identified political ideology. The knowledge alternative explanation was not supported by the results of Study 2. Despite including self-reported knowledge as an independent variable, significant differences across

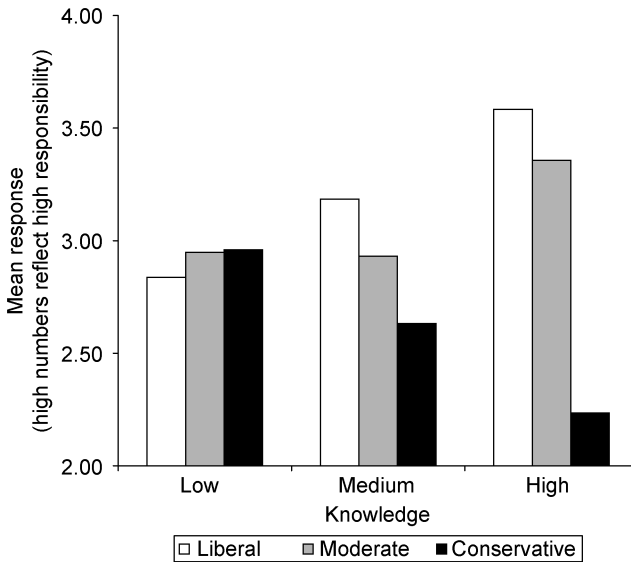


Figure 4. Mean scores of responsibility attributed to President Nixon as a function of political ideology and knowledge.

political ideology groups were found on items assessing culpability and global attributions. Conservative participants were more apt to support the National Guard and various government officials than were their liberal counterparts on questions assessed using both nominal and parametric scales. The percentages and means for self-identified moderate participants were consistently in between conservatives and liberals. Furthermore, significant differences across knowledge groups were much less prevalent. Although chi-square analyses of the nominal culpability attribution items revealed differences across knowledge groups, there were few significant differences found on the parametric scales assessing culpability and global attributions.

One difference between the results of Study 1 and Study 2 is evident when each dependent measure was subjected to a univariate test, rather than testing the combination of conceptually related measures. Although the univariate analyses in Study 2 reveal a similar pattern of political ideology differences to those found in Study 1, there were far fewer significant differences in Study 2. This finding may be attributable in part to the inclusion of the knowledge variable. However, this finding is more likely a result of a decrease in statistical power because the Study 2 sample ( $N = 329$ ) was far smaller than the Study 1 sample ( $N = 730$ ).

Although consistent main-effect differences across political ideology groups were found, the chi-square and MANOVA analyses reveal some unexpected

interactions between political ideology and knowledge. Specifically, the political ideology differences seem to occur only for high-knowledge participants. While little or no differences exist between political ideology groups reporting low knowledge about the May 4th incident, reliable differences do exist between political ideology groups reporting high knowledge about the incident. It seems that as students report being more knowledgeable, liberals report less support for the National Guard and various government officials, while conservatives report more support for these same groups.

### General Discussion

The primary goal of the current research was to examine whether people process sociopolitical information about a historical event that has been gathered over the course of their lifetime in a biased fashion such that the information is molded to be consistent with their overarching political ideology. The results suggest that political liberals and conservatives interpreted the May 4, 1970, shootings at Kent State University very differently. Conservatives' responses suggested a theory of the event that placed more blame on the demonstrators and less blame on the National Guard and government officials than did liberals' responses. Consistent with these differences in culpability attributions, liberals and conservatives also differed in their opinions about how the May 4th event reflects society in general (i.e., global attributions). These results are consistent with the biased-assimilation model.

Over the course of these participants' lives (and especially since their decision to enroll at Kent State University), they have been exposed to bits and pieces of information about the May 4th event. Information consistent with their political ideologies was accepted, while information inconsistent with their political ideologies was rejected. Furthermore, although the design of the current research prevented an analysis of any attitude polarization effects, past research suggests that exposure to mixed information about May 4, 1970, may lead people to perceive that their preexisting attitudes and beliefs about the event have become stronger (Lord et al., 1979; McHoskey, 1995; Miller et al., 1993; Munro & Ditto, 1997).

The results, taken from two samples separated in time by 5 years, also suggests that the biased-assimilation pattern for this specific historical event manifests itself from generation to generation with no specific differences among different cohorts. Events such as the assassination of President John F. Kennedy, the Vietnam escalation, the O. J. Simpson trial, and the recount of the votes for President in Florida during 2000 continue to spark debate and controversy. The manner by which individuals perceive these events is often largely dependent on a specific attitude. Given the fact that attitudes can be passed on from generation to generation, it is no surprise that like-minded individuals would

interpret historical events in a similar pattern, regardless of their temporal proximity to the event. Indeed, the biased-assimilation patterns evidenced in Studies 1 and 2 were very similar. Even more striking is the similarity between the results obtained in the current study and those obtained by Taylor et al. (1971). Apparently, time has not altered the manner by which self-professed liberals and conservatives see the events surrounding that fateful day of May 4, 1970.

### *Knowledge and Biased Assimilation*

Although analyses of both studies reveal political ideology main-effect differences, these differences were somewhat qualified by the significant Political Ideology  $\times$  Knowledge interaction in Study 2. The interaction pattern is not supportive of the knowledge alternative explanation, but it does suggest that political ideology group differences seem to increase as self-reported knowledge increases. There are several potential explanations for this finding.

First, the finding is congruent with cognitive dissonance theory (Festinger, 1957), as well as more recent motivational accounts of attitude change that place greater emphasis on the self-concept (Aronson, 1968; Steele, 1988). According to such models, when confronted with evidence bearing on the specific historical event, the path of least resistance would lead a person to mold the event into a story that could be assimilated into their overarching political ideology, rather than accommodating any ideology-inconsistent information by altering their political ideology. Thus, high-knowledge respondents who often have been confronted with evidence bearing on the historical event would be more likely to have experienced dissonance (or a threat to one's self-concept) and assimilated the evidence into their political ideology. Those with low knowledge would have had few or no experiences with potentially inconsistent cognitions, and thus little or no need to assimilate the evidence into their political ideology. Indeed, this motivational account of biased assimilation and attitude resistance has been supported by recent research efforts (Cohen, Aronson, & Steele, 2000; Edwards & Smith, 1996; Munro & Ditto, 1997; Munro et al., 2002; Zuwerink & Devine, 1996).

Second, the use of a survey methodology only allows for speculation about the causal processes underlying the obtained results. People of differing political ideologies may have been exposed throughout their lives to a different subset of information about the Kent State shootings. This informational explanation for the political ideology differences could be derived from the purely cognitive account of biased assimilation that was proposed originally (Lord, 1989; Lord et al., 1979). However, it is also congruent with motivational accounts of biased assimilation (Cohen et al., 2000; Munro & Ditto, 1997; Munro et al., 2002) derived from cognitive dissonance or related theories. Specifically, information differences between conservatives and liberals might be a result of selective

exposure (Frey, 1986). Instead of deriving consistency between one's political ideology and evidence about the shootings by assimilating ideology-disconfirming evidence when confronted by it, one might selectively seek ideology-confirming evidence to prevent experiencing dissonance. This possibility is particularly intriguing, given the current information age in which the Internet makes available to anyone with access a wide range of varying opinions about any controversial historical event. To the extent that conservatives are entering the information superhighway with different "site-seeing" destinations in mind than liberals, the wealth of information available to people may cause or reinforce biases in the interpretation of historical information, rather than reducing such biases.

Third, the Political Ideology  $\times$  Knowledge interaction was unexpected, given the results reported in Taylor et al. (1971) whereby, among conservatives, those closer to observing the shootings reported an interpretation that was more similar to the one given by liberals. We reasoned that the closer a person was to the actual event, the greater the knowledge that person would have about the shootings. This reasoning may have failed to acknowledge the importance of other factors like empathy or perceptions of threat that could have affected the conservatives from the 1970 findings. Additionally, past research has demonstrated that high levels of emotional conviction (Edwards & Smith, 1996), attitude importance (Pomerantz, Chaiken, & Tordesillas, 1995; Zuwerink & Devine, 1996), and self-reported affect in response to attitude-relevant information (Munro & Ditto, 1997) all are associated with a greater degree of biased assimilation. Thus, knowledge may covary with other variables that were not measured in the current research. Future research should attempt to manipulate variables like empathy, threat, knowledge, emotion, and attitude importance to determine the causal relationships between these variables and the degree to which bias exists in the interpretation of historical information.

### *Design Considerations*

The research utilized a survey methodology in which Kent State University students responded to questions regarding an important historical event at the school. There were no attempts to control the information available about the historical event. Respondents could use any information that they may have gathered from a variety of sources to answer the survey questions. Thus, a cautious interpretation of the findings is warranted. Although several biased-assimilation studies have demonstrated, using experimental or quasiexperimental manipulations, that a preexisting attitude can affect the processing of new attitude-relevant information, a cause-effect interpretation of the current results would be inappropriate. While the biased-assimilation explanation suggests that political ideology precedes and affects the interpretation of the historical event, it is also possible

that the interpretation of the historical event preceded and affected respondents' endorsement of a particular political ideology. This methodological limitation is somewhat offset, however, by the added naturalism that past research on biased assimilation may have lacked. Rather than carefully constructing and manipulating the information presented to participants in a laboratory setting, the current research assessed attitudes and beliefs that were formed via the unprompted collection of historical information throughout a person's lifetime. Thus, the ability to generalize the biased-assimilation effect to real-world situations like the processing of sociopolitical historical information is strengthened.

A second point of consideration regarding the results is the size of the biased-assimilation effect. Although reliable political ideology group differences were found, it was not the case that conservatives perceived the event as a full-blown riot in which the demonstrators had become uncontrollable aggressors to a National Guard that reacted in self-defense. In fact, most conservatives reported that the National Guard fired the first shot without warning and were not about to be overrun by the demonstrators (Tables 1 and 3). Additionally, many of the mean scores on the parametric items fell closer to the midpoint of the 5-point scale than to either of the endpoints (Tables 2 and 4). Similarly, liberals' perceptions of the event acknowledged, for example, that the demonstrators were somewhat responsible and that a moderate degree of provocation existed. In other words, the current research found that beliefs about the Kent State incident held by conservatives and liberals were not entirely contradictory.

There are at least two potential explanations for the somewhat weaker effects found in the current research relative to some of the past biased-assimilation studies.<sup>6</sup> First, the link between participants' attitudes (political ideology) and beliefs (attributions about May 4, 1970) may be less explicit in the current research than in previous studies (e.g., attitudes toward the death penalty and beliefs about the deterrent efficacy of the death penalty). As a result, participants in the current research were less compelled to change their beliefs to maintain cognitive consistency than were participants in previous laboratory experiments. Second, the very nature of the event itself may have contributed to a weaker biased-assimilation effect. According to Dunning, Meyerowitz, and Holzberg (1989), ambiguous information is easier for individuals to distort. Thus, the more ambiguous an event is, the more likely it will be interpreted in a biased fashion. Although there is some evidence that the events of May 4, 1970, are open to alternative interpretations (e.g., Casale & Paskoff, 1971; Davies, 1973; Hensley & Lewis, 2000), as a whole, the historical event utilized in the current research may be somewhat less ambiguous than those events used in past research (e.g., JFK assassination). Consequently, the range of plausible interpretations in

<sup>6</sup>The authors thank an anonymous reviewer for insightful comments regarding the strength of the biased-assimilation effects found in the current research.



the current research may have been limited, resulting in a weaker biased-assimilation effect.

Yet, despite the aforementioned obstacles, participants in Studies 1 and 2 still assimilated the events surrounding May 4, 1970, in a biased fashion. Liberals and conservatives each perceived the event in a manner most consistent with their own political worldviews. The fact that biased assimilation occurred under these deleterious conditions only serves to strengthen the external validity of the biased-assimilation effect and underscores the robustness of the phenomenon in that it occurs even for poorly linked concepts and relatively nonambiguous information. Before making strong conclusions, however, the aforementioned speculations warrant further research investigation.

A large body of research suggests that preexisting attitudes can bias the processing of subsequently presented information relevant to the attitude. Specifically, the new information is evaluated in a way that serves to support or strengthen the existing attitude. Although a growing body of laboratory research has revealed such effects, the current research continues to extend their applicability by showing that naturally occurring real-world information about an important historical event collected over the course of many years can also be biased by existing attitudes.

The inscription on the May 4th Memorial at Kent State University states, "Inquire, Learn, Reflect." Although we have no data regarding the degree of inquiry, the results of the current studies suggest that it is unlikely that much is being learned from the Kent State shootings, given that the events are being analyzed in a biased fashion. Furthermore, our data suggest that any reflecting is probably more a reflection of one's own political attitudes than of the actual events that transpired on that fateful day.

#### References

- Ahluwalia, R. (2000). Examination of psychological processes underlying resistance to persuasion. *Journal of Consumer Research*, *27*, 217-232.
- Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.), *Theories of cognitive consistency: A sourcebook* (pp. 5-27). Chicago, IL: Rand-McNally.
- Casale, O. M., & Paskoff, L. (Eds.). (1971). *The Kent affair: Documents and interpretations*. Boston, MA: Houghton-Mifflin.
- Cohen, G., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, *26*, 1151-1164.
- Davies, P. (1973). *The truth about Kent State: A challenge to the American conscience*. New York, NY: Farrar, Straus, & Giroux.

- Dunning, D., Meyerowitz, J. A., & Holzberg, A. D. (1989). Ambiguity and self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology, 57*, 1082-1090.
- Edwards, K., & Smith, E. E. (1996). A disconfirmation bias in the evaluation of arguments. *Journal of Personality and Social Psychology, 71*, 5-24.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Frey, D. (1986). Recent research on selective exposure to information. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 19, pp. 41-80). New York, NY: Academic Press.
- Gordon, W. A. (1995). *Four dead in Ohio: Was there a conspiracy at Kent State?* Laguna Hills, CA: North Ridge Books.
- Hastorf, A., & Cantril, H. (1954). They saw a game: A case study. *Journal of Abnormal and Social Psychology, 49*, 129-134.
- Hensley, T. R., & Lewis, J. M. (2000). *Kent State and May 4th: A social science perspective*. Dubuque, IA: Kendall/Hunt.
- Kelner, J., & Munves, J. (1980). *The Kent State coverup*. New York, NY: Harper & Row.
- Lord, C. G. (1989). Dissonance in an age of relativism. *Personality and Social Psychology Bulletin, 15*, 513-518.
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology, 37*, 2098-2109.
- McHoskey, J. W. (1995). Case closed? On the John F. Kennedy assassination: Biased assimilation of evidence and attitude polarization. *Basic and Applied Social Psychology, 17*, 395-409.
- Michener, J. A. (1971). *Kent State: What happened and why*. New York, NY: Random House.
- Miller, A. G., McHoskey, J. W., Bane, C. M., & Dowd, T. G. (1993). The attitude polarization phenomenon: Role of response measure, attitude extremity, and behavioral consequences of reported attitude change. *Journal of Personality and Social Psychology, 64*, 561-574.
- Munro, G. D., & Ditto, P. H. (1997). Biased assimilation, attitude polarization, and affect in reactions to stereotype-relevant scientific information. *Personality and Social Psychology Bulletin, 23*, 636-653.
- Munro, G. D., Ditto, P. H., Lockhart, L. K., Fagerlin, A., Gready, M., & Peterson, E. (2002). Biased assimilation of sociopolitical arguments: Evaluating the 1996 U.S. Presidential debate. *Basic and Applied Social Psychology, 24*, 15-26.
- Pomerantz, E. M., Chaiken, S., & Tordesillas, R. S. (1995). Attitude strength and resistance processes. *Journal of Personality and Social Psychology, 69*, 408-419.

- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261-302). New York, NY: Academic Press.
- Taylor, S. P., Shuntich, R., McGovern, P., & Genther, R. (1971). *Violence at Kent State May 1 to 4, 1970: The students' perspective*. New York, NY: College Notes & Texts, Inc.
- U.S. President's Commission on Campus Unrest. (1970). *The report of the President's Commission on Campus Unrest*. New York, NY: Arno Press.
- Zuwerink, J. R., & Devine, P. G. (1996). Attitude importance and resistance to persuasion: It's not just the thought that counts. *Journal of Personality and Social Psychology*, 70, 931-944.