Rethinking Historical Thinking:
How Historians Use Unreliable Evidence

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HISTORICAL THINKING, a term that encompasses a diverse set of definitions and competencies, calls on students to replicate the work and cognitive processes of historians by analyzing and interpreting evidence and making logical conclusions based on this evidence.[1] Given this emphasis on discipline-specific skills, "sources" (especially primary sources) constitute a significant feature of the research about historical thinking. Much of this literature stresses the need for "accurate," "reliable," "trustworthy," and "legitimate" evidence when constructing a historical argument.[2] Although this emphasis on accuracy can be helpful in understanding the cognitive processes associated with the study of history, it does not effectively reflect the way historians work within their discipline. A historian might subject a piece of evidence to a reliability assessment, but a source's utility is not dependent solely on its accuracy. Moreover, historians regularly use different kinds of unreliable evidence to construct historical arguments. The study here thus proposes to do two things. First, it provides a new perspective on historical thinking by illustrating the role that inaccurate and unreliable evidence can play in the creation of a

historical account. Second, this study examines the idea of evidence use as a component of historical expertise and the discipline-specific skills associated with the study of history.

Literature Review

Much of the literature related to historical thinking uses evaluation of evidence as the means through which historical cognition is measured and assessed. This literature places considerable emphasis on assessing the accuracy and reliability of source material. Peter Seixas noted "the deployment of either control for 'bias' or 'reliability' as criteria for the selection of useful primary sources" as a characteristic of much of the literature on historical thinking.[3] Samuel Wineburg's influential research from the 1990s, for example, made assessing a source's reliability an important element of the procedures used in these studies.[4] One important research design tasked historians with ranking the trustworthiness of written and visual evidence related to the Battle of Lexington. In this study, Wineburg found that historians read the documents "in more sophisticated ways" and activated "an appropriate principle-oriented knowledge structure" to assess the reliability of the sources in question.[5] This structure involved comparing the sources, asking questions of them, and making logical conclusions about their reliability based on the details they presented. Assessing reliability accordingly became the means through which expertise in history was identified and evaluated.

Wineburg's research is also significant because it introduced the idea of "adaptive expertise," and how this idea applies to the discipline of history. Adaptive expertise is defined as "the ability to correctly apply knowledge across situations" and is characterized by cognitive traits such as "reflection, mindfulness, efficiency of thought, flexibility, and innovation."[6] Wineburg investigated this concept using an "expert/expert" framework to study how historians read, analyze, and draw conclusions from historical evidence. In his "Reading Abraham Lincoln" investigation, two historians, one an expert on Lincoln, the other not, analyzed evidence related to Lincoln's views on race.[7] Even though one of the historians was not an authority on the topic, he was able to extract meaning, inferences, and logical assumptions from unfamiliar evidence. Wineburg identified

adaptive expertise in the way the historian who was unfamiliar with the content "ask[ed] questions," "reserve[d] judgment," and "revisited earlier assessments" to effectively interpret evidence with which he was not familiar.[8] In this case, Wineburg illustrated how historians possess a unique, instinctive set of "cognitive resources"[9] that allow them to ask questions of and draw conclusions about evidence. This interpretive ability in turn revealed a dimension of disciplinary expertise that transcended factual knowledge.[10]

Other authors have emulated Wineburg's protocols, employing designs where source material is tested for accuracy and reliability as the means through which historical cognition is identified and evaluated. Three studies duplicated the exact methodological procedure from Wineburg's "Historical Problem Solving" article and asked different sets of participants (teachers, student teachers, and high school students) to rank documents related to the Battle of Lexington based on their "trustworthiness" or "credibility," while recording findings through a think-aloud protocol.[11] Other research projects also use evaluating a source's accuracy as the means to assess historical cognition, with findings collected through a writing prompt rather than a think-aloud procedure. Studies of this nature have used diverse sets of participants, ranging from student teachers in social studies, to college undergraduates, to graduate students, to middle school and high school students.[12]

Large-scale research projects involving historical thinking include those by Susan De La Paz and Avishag Reisman.[13] Here, the researchers studied historical thinking to determine if engaging in such specialized cognitive activity promoted academic achievement in the form of improved content knowledge or literacy ability. In this research, evaluating reliability of sources was again used as the primary criterion through which historical thinking was introduced to students. In De La Paz's study, seventy eighth graders assessed documents related to Native American history using a "historical reasoning strategy" that asked them to "check a document's source to judge its integrity," consider "inconsistencies" in a document "as a basis to question its legitimacy," and evaluate "how an author's word choice could indicate bias."[14] Two articles by Reisman evaluated efforts to pilot the historical thinking-based *Reading Like a Historian* (RLH)[15] curriculum in five San Francisco high schools. Accuracy and reliability were again the means through which

source analysis was introduced to these students. Describing one specific document-based question (DBQ) activity, Reisman noted how students "observed how to evaluate a document's reliability and how to glean important information about the historical context while remaining circumspect about the author's claims."[16] It was also noted that a goal of this curriculum is for students "to approach historical sources as pieces of evidence that must be interrogated."[17] Another large-scale research design (involving ninety high school students) used evaluation of a source's accuracy and "reasons for trusting or not trusting evidence" to investigate how students use "emotional connections" and "sociological identity" when analyzing different types of source material.[18]

Another line of research in historical thinking considers how evidence is used to create arguments, support conclusions, and answer questions. Gaea Leinhardt and Kathleen McCarthy Young explored this idea when they used the term "historical read" to define how historians evaluate evidence with a purpose and approach in mind.[19] To this end, they asked historians participating in their study to evaluate evidence not only for its reliability, but also for its utility (defined as "how to make a point and convey an idea") and functionality.[20] Rosalyn Ashby, Peter J. Lee, and Denis Shemilt also noted that a source's "reliability" should be determined not by its accuracy, but rather by "how far a source can be used to answer a particular question."[21] Experimental studies have also investigated the idea of evidence use, focusing especially on how effectively students employ evidence to support arguments and conclusions.[22] These designs suggest that students often see historical artifacts only as testimony, and struggle with using such materials to support or challenge historical claims. Ashby, for example, noted "the propensity of many students to treat sources as information," and Keith C. Barton identified "serious shortcomings in [students'] use of evidence to reach conclusions."[23] Chauncey Monte-Sano, Abby Reisman, and Sarah McGrew also observed a DBQ mentality among both teachers and students, who see historical evidence mainly as a way to summarize information and expeditiously answer an essay question.[24] An analysis of instructional materials related to historical thinking further concluded that such materials "simply ask students to acquire more knowledge about a topic rather than use evidence to make an argument."[25]

Method

The research here seeks to contribute to the historical thinking literature in the following ways. The emphasis on accuracy and reliability often found in historical thinking research provides an incomplete image of how historians work. It would be rare for a historian to reject a piece of evidence based on its lack of accuracy or reliability. As Keith Jenkins noted, "a source that gets facts wrong is often highly significant in a historian's eyes."[26] The discussion here looks to provide a more comprehensive portrayal of how historians work within their discipline. Second, most of the "expert" research in historical thinking has addressed how historians evaluate evidence. While there have been many studies that investigate how students use evidence, there has been relatively little research on how historians consider uses for historical evidence. Reisman and McGrew stated that "the research base, as it stands, reflects only a partial representation of what historians do when they read."[27] Since evidence use is an important element of the discipline-specific skills historians possess, the research here seeks to provide further perspective on this dimension of historical cognition. Historical thinking research (as noted above) has suggested that while students are often able to evaluate evidence effectively, they struggle with finding appropriate ways to use this evidence to answer questions and support arguments. Evidence use is also cited as an important competency in both the National Council for the Social Studies C3 Framework and Advanced Placement Standards.   The C3 Framework calls on students to "critique the usefulness of sources for a specific historical inquiry" and the AP History Curriculum Framework refers to "appropriate use of relevant historical evidence" and lists "evidence" as one of the scoring criteria for the written portions of the exam.[28]

The research method employed here was designed to address two topics related to the idea of evidence use. First, to explore how historians consider uses for inaccurate and unreliable evidence and to demonstrate how such materials can be used to generate historical interpretations and conclusions. Second, to consider the idea of evidence use as an example of the domain-specific skills associated with learning history and investigate how experts use evidence to build arguments. To explore these issues, three sets

of participants were recruited and asked to analyze different kinds of unreliable evidence related to the Battle of Passchendaele (also known as "Third Ypres") from the First World War. This event was chosen because it has earned the reputation as the most horrific battle of World War I and remains controversial to this day. The British war correspondent Philip Gibbs noted in 1920 that "nothing that has been written is more than the pale image of the abomination of those battlefields" and the eminent military historian Michael Howard wrote that "Passchendaele, like Vietnam, is one of those memories that drives reason from her sovereign throne."[29] During its recent centennial anniversary, newspapers alluded to "a battle shrouded in shame and guilt" to "mud, death and despair" and "the worst place on earth."[30] Given its controversial nature, a misleading and inaccurate historical record surrounds the event. Indeed, it is impossible to understand the history of the battle, its legacy, and its political and cultural impact without this evidence.[31]

The resources provided in the survey were defined as "inaccurate" or "unreliable" based on two criteria found in historical thinking literature and teaching materials. First, an inaccurate piece of evidence is one that prevents or inhibits the writing of a reliable factual account of historical events. For example, an introductory video about historical thinking found on the *teachinghistory.org* website notes that "we must use multiple sources to get as accurate a picture as possible of events in the past." This suggests that source material must above all serve the goal of retelling what happened in the past as truthfully as possible. Second, an unreliable piece of evidence can be biased or misleading in some way, with an author or authors seeking to distort or misrepresent the truth. Reflecting this perspective, the "Historical Thinking Standards" found on the UCLA Center for History in the Schools website calls for "testing data sources [by] detecting and evaluating bias, distortion, and propaganda by omission, suppression, or invention of facts."[32]

The participants in this study were chosen with the goal of exploring the idea of evidence use and how this idea acts as a dimension of the disciplinary expertise related to study of history. First, two experts (called "E1" and "E2") on the First World War were recruited; both individuals have published at least two books by highly regarded presses on this topic and possess international reputations for their expertise in the area of Great Britain's role in

Ph.D. Student	Area of Specialization
G1	Medieval Europe
G2	Holocaust and Genocide Studies
G3	European Intellectual History
G4	Early Modern Europe
G5	17th-Century Russia
G6	Modern Latin America
G7	Early Modern Europe
G8	Modern United States
G9	U.S. Urban History
G10	Colonial America
G11	Early Modern Europe
G12	U.S. Immigration History (19th century)
G13	U.S. Legal History
G14	U.S. Women's History (19th century)

Figure 1: History specializations of Ph.D. student participants (identified as "G" for "graduate student").

the First World War. These individuals were recruited via direct e-mail contact. Second, fourteen advanced Ph.D. students in history (identified as "G" for "graduate student") from four leading research universities agreed to take part in the study; all four institutions rank in the top ten of the most recent *US News* rankings for history graduate programs. None of these individuals' areas of historical specialization is in military or modern European history. **Figure 1** identifies the Ph.D. students' areas of specialization. The graduate students were solicited through an e-mail request sent out through the listservs of their respective history departments. Finally, fourteen high school students were recruited from a high school in the American northeast. These individuals were at the time enrolled in the Advanced Placement Research class, the goal of which was for students to "design, plan, and conduct a year-long research-based investigation to address a research question." As a

Source/Artifact	Description
1) David Lloyd George memoir	This is an excerpt from David Lloyd George's memoirs, published in 1934. He was prime minister from December 1916 to 1922.
2) Douglas Haig published diary	Douglas Haig commanded the British Army in France from December 1915 to the end of the war. These quotes were taken from his diary, which was published in 1952.
3) Hubert Gough memoir/history	This is part history and part memoir, written by General Gough, who planned and led the first phase of the British offensive at Passchendaele. It was published in 1931.
4) Excerpt from the British *Official History of the Great War*	The *Official History* was a multivolume history of the war commissioned by the British government, written using documents that were classified at the time. The excerpt is from the Passchendaele volume, published in 1948.
5) *London Times* editorial, "The Meaning of Passchendaele," from November 1917	This is a newspaper account from the *London Times* after the last day of the battle.
6) Army dispatch about the battle, from 1917	For each year of the war, the various British Army headquarters prepared summaries of their operations. These were printed in the *London Gazette* during the war and were also published in book form in 1919.
7) Excerpt from *Europa in Limbo*, a novel about the battle	An excerpt from one of the many novels published about WWI in the 1930s. The author was a medical officer during the war. It was published in 1937.
8) Oral history interview of battle participant, recorded 1986	The Imperial War Museum in London has collected oral histories of veterans who fought in WWI. This is part of an interview with a soldier who fought at Passchendaele that was recorded in 1986.
9) Poem, *Third Ypres*, by Edmund Blunden	Edmund Blunden fought at Passchendaele and would become a famous poet and academic after the war. This is part of his poem, "Third Ypres," first published in 1922.
10) Painting, *Void*, by Paul Nash	Paul Nash was an official war artist, commissioned by the British Army to have access to the front lines. This painting depicts the battlefield at Passchendaele and dates to the year 1918.

Figure 2: List of source materials provided on the Battle of Passchendaele survey.

precursor to AP Research, these students had previously taken the AP Seminar class, which is a required prerequisite and lists "gathering and combining information from sources" and "crafting arguments based on evidence" as goals for the class.[33] As such, these students have some familiarity in working with source material, creating a research design, and drawing appropriate conclusions from available evidence. Although intended as novices for this study, they could certainly be described as "advanced" novices. These students were selected to provide a more useful means of comparison between the groups, as their general aptitude, reading ability, and familiarity with research protocols would match them more closely to the experts.[34] The AP students were recruited through an in-person presentation to their AP Research class, and this effort received institutional review and school board approval.

To establish baseline parameters regarding participants' familiarity with the history of the First World War, both the Ph.D. students and AP students were offered the opportunity to take a multiple-choice quiz about factual events related to the conflict, with questions moving from easier to more difficult. This quiz was voluntary, but all participants ultimately did answer the questions. The questions, together with the percentage of correct answers for the two groups can be found in **Appendix A**. The answers suggest awareness of the basic factual details associated with World War I, but also a lack of specialized knowledge about the topic.

All three sets of participants were asked to complete a qualitative survey that provided them with ten sources related to the Battle of Passchendaele. These sources are listed in **Figure 2**; the brief narratives in the "description" column were given to the respondents as an addendum that provided background information and context about the items that were found in the survey. A link to these materials can be found in the lesson plan that is provided as a supplement to this article in **Appendix B**. Note that several of the sources are ostensibly secondary accounts, but they could also be interpreted as primary evidence depending on how they are utilized.[35] The sources were selected based on their being inaccurate or unreliable in some way, but also on their importance as historical artifacts. Sources were also chosen with some diversity in mind so that different types of history were addressed in the sample. As such, political, popular, military, social, and cultural history were

all represented in the materials given to the respondents. The
survey asked the participants to examine the source, consider why
it could be judged as inaccurate and/or misleading, and address
how they would use the source in question if they were writing
a historical account of the event. The purpose of the design was
to assess how experts consider uses for historical evidence. To
this end, the experts and graduate students provided a basis of
comparison. This approach is modeled on Wineburg's "Reading
Abraham Lincoln" article (which compared how a content expert
and a non-content expert evaluated the same evidence) and tests
the extent to which the graduate students' ideas about how to
use evidence reflect those of content experts, even though they
lack familiarity with the subject matter. Just as the evaluation of
source material reflects a dimension of historical expertise, so too
should the ability to specify appropriate uses for different kinds of
historical evidence. The participation of the AP students was used
to create a comparison between how experts think about evidence
use in ways that are different from novices. The use of unreliable
evidence will be especially useful for making such comparisons,
in that these materials cannot be employed simply as testimony
and their potential utility is less obvious than using them to restate
what happened and when. The findings below are divided into two
sections, with the first comparing how the experts and graduate
students defined uses for different types of inaccurate and unreliable
evidence. The second section assesses how the AP students
evaluated and specified uses for this evidence and compares their
ideas to the other two groups.

Findings

Historians' Use of Inaccurate and Unreliable Evidence

Rather than address each piece of evidence in turn, these findings
are presented through four "uses" that emerged in the responses
of the various participants, as the different evidentiary samples
provided on the survey often led to similar conclusions about how
they could best be employed to generate a historical argument or
conclusion. These four uses are: "missing information," "memory,"
"anecdotal evidence," and "attitudes and values." These categories

are all in some way related to reasons why the evidence analyzed could be considered inaccurate or unreliable, illustrating a connection between a source's limitations and its potential utility. These uses also have applicability beyond the history of the First World War and could easily be connected to other periods of history, suggesting some general, universal applications for specific types of "unreliable" evidence, be it a memoir, newspaper, or poem. The narratives below combine selected comments from the experts and graduate students, illustrating similarities in their thinking about historical evidence and how best to use it. Note that two of the sources that were present in the survey—a diary entry and an excerpt from the British *Official History of the Great War*—are not included in the narratives below, as none of the respondents connected them to the four categories noted above, and space limitations preclude lengthy examination of the two uses that did emerge in the discussions about them.

Missing Information

The first use that emerged in the survey responses concerned the idea of "missing information," and that evidence can be unreliable because it fails to discuss important and relevant factual details related to an event. Many of the respondents connected this idea of missing information to sample #6 (a British Army dispatch from France) and to sample #5 (a *London Times* editorial). During WWI, every British command (Europe, India, Middle East, etc.) prepared summaries (called "dispatches") of their operations for each year of the war, which were addressed to the Prime Minster and published in the *London Gazette*.[36] Given its importance, the Battle of Passchendaele constituted most of the discussion found in the British Army's dispatch about its operations in France during 1917. The argument it makes is that even though the offensive did not capture much ground, it wore down the German Army and represented a successful attritional battle despite the casualties it incurred. As E1 noted, "this is a piece of evidence interesting for what it does not tell us," and E2 elaborated on this idea, pointing out that "he [British commander Douglas Haig] did not intend Third Ypres [Passchendaele] to be a limited attritional struggle, but as part of a war-winning offensive to free the Belgian coast." As such, what

is included in the dispatch is a retroactive justification for a failed military operation. Many of the graduate students intuited this fact. For example, G2 called the tone "overwhelmingly optimistic," G4 noted that a reader "should be suspicious of the information that is omitted," and G8 observed that the dispatch "is unlikely to be candid about failures and mistakes."

The respondents nonetheless found appropriate uses for this piece of evidence, noting that it could be used to illustrate how the British Army managed public perceptions of the battle. As E1 noted, the dispatch "is therefore useful in giving some insight into the way the High Command wished to interpret the battle," and E2 observed that the dispatch "lays out Haig's justification for the battle and how he wanted it to be interpreted." Similar ideas emerged in the conclusions of G1 and G5. G1 stated, "I would use this source to illustrate how the British Army put a positive spin on a messy, high-casualty event," and G5 stated that the dispatch "gives an interesting insight into the way British High Command tried to manage public perceptions of the war." G6 and G13 both observed that this sample could be used to illustrate how the British people were provided with incomplete and misleading information as the war was being fought, referencing "the paucity of information that was being released to the public" and that "it's a useful source as a testament to the kinds of narratives that the public would have been exposed to." G3 and G14 had similar ideas. G3 stated, "I would use this source to illustrate what the British public knew about the battle as it occurred," and G14 observed that "it [the dispatch] can be used to get a sense of what readers knew about the battle and the state of mind of the British public."

The *London Times* editorial that was provided to the participants paraphrases (and even amplifies) the conclusions found in the dispatch, and similar ideas regarding utility emerged here. E2, for example, stated that "with the *Times* being a kind-of unofficial mouthpiece for the government, it [the editorial] provides a good example of how controversial events were 'spun' into a positive interpretation." G8 stated that the editorial "is useful to show how even disastrous battles were adapted for the morale effort at home" and G3 stated that the editorial can be used to show how newspapers were "preoccupied with keeping the morale of the British public high and opinion squarely behind the continued prosecution of the war."

G11 also noted that "this would be a great source to analyze the role that print culture has in shaping larger national narratives." Even though the arguments in the dispatch and newspaper are unreliable at face value, they nonetheless lead to important conclusions about how information is managed during wartime, how a society can be kept ignorant about the true nature of events, and how a nation at war justifies and makes sense of its sacrifices.

Memory

Another use that emerged from the responses concerns the idea of "memory" and how individuals try to shape how events are remembered. This use emerged mainly through sources #1 and #3. Sample #1 was from Prime Minister David Lloyd George's memoirs, and sample #3 was from a book written by General Hubert Gough, who planned and led the initial attack at Passchendaele. Gough's book is part informal history of the unit he commanded and part memoir. In the excerpts provided to the participants, the two authors attempt to shift the blame for the battle's failure away from themselves and onto General Douglas Haig, who was the overall commander of the British Army in France (and who could not defend himself given that he passed away in 1928). Lloyd George also makes the case that he was powerless to prevent the battle, given that the British Army high command and his political opposition both strongly advocated for an offensive in Belgium.[37] At the time, all British documents related to the war were classified, so there was no real way to prove or disprove any of the arguments made by the two individuals; as E1 observed, this gave them "the opportunity to make statements others could argue against but not contradict with absolute assurance."

Research has since proven that both authors' claims are dubious at best and were intended mainly to protect their reputations. This is noted by both experts in their observations. E1 said of Lloyd George that "the great LG tells a very partial story here, and at no point gives the impression that he was actually PM [prime minister] with a great deal of power thanks to holding that office," and E2 said of Gough that he "had gained a reputation as an aggressive and careless 'thruster' and his account is an attempt to justify his conduct of the battle." The graduate students also identified the tenuous

nature of the authors' claims. For example, G2 noted that "various parties worked to absolve themselves of responsibility for the battle, and it's difficult to know for sure what actually happened." G2 also said of Lloyd George, "of course he wants to give the impression that he was opposed to Passchendaele and that he knew better," and G9 observed that "it's safe to assume that Lloyd George had his own reputation in mind when framing his recollection of this particular event." Of Gough, G11 stated that "Gough's account, written after the war, seems calculated to preserve his reputation," while G4 called his account "a self-defense narrative against then contemporary sceptics of his wartime actions," and G5 said that "he clearly wants to avoid blame for a terrible battle." G6 also noted that Gough "appears very aware of (and in direct conversation with) critics of his conduct during the battle."

Despite the limitations found in the two sources, the respondents also noted how these questionable arguments could be used to illustrate controversies associated with the battle, as well as its complicated legacy. For example, G4 stated, "I would prefer to use this source [Gough's account] as evidence of how the battle was remembered, rather than how it was fought," an idea also articulated by G2: "this example would be nicely situated as a way to reflect on the memory of Passchendaele." G4 and G14 further connected this evidence to the time period in which it was written, and how it illustrates why the battle became so controversial when the economic and political turmoil of the 1930s led many to question the sacrifices made during WWI. G14 observed that "you can use it [Lloyd George's memoir] to tell more about what was going on in the early 1930s, in terms of Germany rebuilding itself, than you can to write a historical account of the battle," and G6 observed, "I would use [the memoir] as an example of how controversial the battle was and how it affected morale, governance, strategy, policies, and foreign affairs immediately after WWI and continuing into WWII." As these examples show, even though these memoirs make questionable assertions designed to protect the reputations of their authors, they nonetheless help develop arguments related to the memory of WWI and how this memory became increasingly embittered over time. These would be important conclusions when writing about the legacy, cultural impact, and changing perceptions of World War I, making these memoirs valuable, despite the lack of

accuracy as to the claims they make. As G2 noted about Gough's memoir, "it is inherently unreliable as a source about the war, though very reliable as a source about 'narratives' of the war."

Anecdotal Evidence

Another use for unreliable evidence found in the participants' responses concerned the idea of "anecdotal evidence." Anecdotal evidence is defined as evidence derived from personal recollections and eyewitness accounts.[38] Interpretations associated with this type of evidence emerged mainly in the participants' discussions about sample #8, which is part of an oral history interview of a participant in the Battle of Passchendaele, as well as in samples #7, #9, and #10, which are various cultural resources related to the battle (an excerpt from a novel, a poem, and a painting). Anecdotal evidence possesses some clear limitations. Oral histories address subjective memories, and often call on interviewees to discuss events that happened many years before. The oral history provided for analysis here was recorded in 1986, with the individual in question discussing events that occurred in 1917 (he was in his mid-80s at the time). Memories can also be influenced and shaped by experiences that occurred after the event being discussed. E1, for example, stated that "the fact that it was recorded so long after the event should make us query the extent to which it is a reflection of every subsequent experience" and G10 observed that "oral histories are often in conversation with contemporary views on historical events." G6 also noted that "there are studies that prove that the more often we retrieve a certain memory, the more creative we are about it."

It would be rare, however, for a historian to ignore a relevant oral history collection or to wholly disregard anecdotal evidence. As is noted by the experts and graduate students, such evidence can add a personal perspective to a narrative and allow for discussion of individuals whose experiences would not be found in traditional archives. As E2 noted, oral histories allow for "hearing the voices of those who were there" and G3 stated that "this source [the oral history] helps put some flesh on the bones of the more detached accounts of the fighting found in other sources here." In the case of WWI, this can move focus away from generals and leaders and allow for the perspective of working-class, lower-ranking soldiers to

be incorporated into a discussion. It is also common for historical narratives to try to convey some of the drama associated with an event, and anecdotal evidence allows for this. For example, E2 said of the poem that "it would be useful in helping to show the emotional impact of the battle and to bring the experience of it to life" and G4 said of the excerpt from the novel (a grisly depiction of the battlefield) that "there is a visceral quality to these descriptions, that can add depth to historical narration, and we wouldn't get that from official reports. The most we would get would be something like 'It was raining non-stop for a week,' but the description here of the endless mud really nails the point home."

An effective historian would not use anecdotal evidence to prove something as true, but after acknowledging its shortcomings, such evidence allows for a historical account to be more inclusive, real, and relatable. As such, historians often use such kinds of materials in their writing, despite their shortcomings. G12, for example, noted a weakness of oral histories while also stating why they are useful for historians: "this oral history's main limitation is the long timespan between the events and when the interview was conducted. However, the interview provides the important perspective of a soldier participant in the battle." G2 also provided perspective on how a historian would incorporate oral history into a narrative: "I would feel comfortable employing some of his descriptions of the mud or the whistling bullets, for example. Proper contextualization that makes clear that this is an oral history would absolve me of the issue of using possibly unreliable testimony."

Values and Attitudes

A fourth set of conclusions related to unreliable evidence that emerged in the data concerned the idea of "values and attitudes," and this use emerged in discussions of samples #7, #9, and #10, which are cultural resources of different types (a novel, a poem, and a painting), all presenting artistic and stylized depictions of the Battle of Passchendaele. Although resources of this type are often used to portray what the experience of WWI was "really like" (consider their prevalence in history teaching), historians have often noted the error of using the writings of a miniscule minority of alienated intellectuals to reflect the sentiments of a mass army of

mostly working-class soldiers.[39] It is also problematic to use cultural evidence to prove anything as real in the literal sense. E2 said of the poem, for example, that "poetry in its essence relies upon imagery and association for its emotional and aesthetic qualities, which can be somewhat misleading if used or interpreted incorrectly," and E1 said of the novel that it "was written post-war, the cultural climate in which it was written is important, the motivations of the author have to be considered, and crucially those of the publisher, too."

Considering the significant cultural legacy of the First World War, such evidence should not simply be disregarded, however, and the survey respondents provided thoughtful ideas about how to use this evidence creatively. These related to how the materials reveal changing attitudes about war, as well as how World War I impacted the values and beliefs of European society in its aftermath. E1 articulated the idea that the painting is not so much about the battle itself, but rather presents a deeper message about war in general: "Nash [the artist] is trying to get at a truth about the nature of modern war, and arguably this lifts it beyond the immediate historical confines of the Third Battle of Ypres." The graduate students also noted that this evidence could not be used literally, and effectively connected these sources to conclusions about the way these materials comment about war in a more general sense. This is an important dimension of European cultural history, as creative expression became a way to try make sense of the seemingly unexplainable suffering caused by WWI.[40] G3 stated that the novel "gives interesting insight into the interwar 'cultural' processing of war in general," and G2 made a similar point about the painting and the way it illustrates "how the artist struggled to make sense of relentless tragedy." G5 also connected the painting to a wider message about the nature of war: "I'd do a 'close reading' of sorts to show how this painting visualizes the impact and public perception of the event and of the nature of war itself."

Other responses point to how this evidence could be used to address the cultural impact of the war. E2 said of the novel that "this source is useful to those thinking about the cultural and social impact of the battle many years later." G4 noted of the poem that it "could tell us more about the impact of this battle and the war as a whole on European society." A similar point is made by G8: "this source [the poem] and the novel could be discussed in tandem as

AP Students' Responses about Unreliability of Evidence
"Since this a memoir, this sounds more like a personal opinion rather than straight facts."   (*Lloyd George memoir, sourcing*)
"This was found in the *London Times*, which was probably biased when writing the article as it heavily favors the British side."   (*newspaper editorial, sourcing*)
"The account remains consistently optimistic and neglects to mention casualties."   (*Army dispatch, sourcing*)
"One could argue that this source is unreliable because all of the information is derived solely from memory."   (*oral history, sourcing*)
"Based on when it was written, the account seems to want to portray the British war effort in a positive way."   (*Official History, contextualization*)
"Considering when this interview was recorded it would be near impossible to remember exactly all the details of the battle."   (*oral history, contextualization*)
"Throughout this excerpt, Gough tries to make himself come across as innocent and that he knew that the battle wouldn't go well."   (*Gough memoir/history, sourcing*)
"This could be considered inaccurate because it was edited after it was written."   (*Haig diary, sourcing*)
"This source could be inaccurate or unreliable because Haig probably wanted to make it seem as though his troops were doing better than they actually were."   (*Army dispatch, contextualization*)
"This source could be considered inaccurate because the author attempts to exonerate himself."   (*Gough memoir/history, sourcing*)
"This could be considered unreliable since it is literary and uses a lot of exaggerated and figurative language."   (*novel, sourcing*)

Figure 3: AP students' responses about unreliability of evidence.

two forms of creative expression induced by wartime experience."
G13 also connected the poem to this idea: "it could be used to trace
the way that people understood the battle and the war after it ended."
G14 similarly associated the novel with the idea of memory: "this
source [the novel] would be good to show how people thought
about the war after the fact and their engagement with the memory
of the conflict." As these responses illustrate, even though cultural
artifacts have significant limitations and cannot be used to prove
historical realities, when used properly, they represent valuable
resources. In this case, the respondents connected these sources
to conclusions about the nature of war, and how these artifacts are
not so much about the war itself, but rather about the despair and
apprehension that existed in European society as a result of the war.[41]

AP Students' Use of Inaccurate and Unreliable Evidence

   As the discussions above illustrate, the graduate students had
little problem matching the ideas and conclusions of the experts. As
such, they were able to identify why evidence might be unreliable or
inaccurate and articulate how such evidence could nevertheless be
used to write a historical account. The graduate students' responses
reflect the idea of adaptive expertise in that these individuals were
able to interpret unfamiliar evidence and consider appropriate ways
to use it to form historical arguments. To further measure the idea of
adaptive expertise, the responses of the high school AP students are
used to identify what an adaptive expert can do that a novice cannot.
It is again noted that these students are high achievers (several are
headed to the same universities where the graduate students are
completing Ph.D.s) who also have background in designing and
implementing research methodologies.
   Most of the AP respondents were able to identify reasons why
many of the sources were inaccurate or unreliable. Examples of
student responses are provided in **Figure 3**. These responses reflect
two of the cognitive heuristics (defined by Wineburg) that historians
use when evaluating evidence—mostly sourcing (considering a
document's origins), but also some contextualization (considering
the time period when a document is produced).[42] They also suggest
thoughtful analyses of the evidence that in many instances correspond
to the conclusions of the experts and graduate students discussed in

the previous section. What the novices did not do that the graduate students did was use the corroboration heuristic, which is how historians validate information by comparing similar claims made in different places. Further, while sourcing and contextualization can provide useful speculative thoughts about evidence and where it came from, only corroboration provides provable, verifiable conclusions. Historians think reflexively about how they can corroborate information they encounter, reflecting a component of adaptive expertise not found in the responses of the novices. This is shown in **Appendix C**, which contains examples of corroboration in the responses of the experts and graduate students. While the AP students did use many examples of sourcing and some examples of contextualization, there were no examples of corroboration, illustrating a dimension of adaptive expertise as it applies to the way historians analyze and consider appropriate uses for evidence. Other studies have observed that novices use corroboration when evaluating sources, which may be true when comparing different sources against one another.[43] However, the findings here suggest that corroboration does not emerge intuitively when novices consider evidence use, and only the experts demonstrated an instinctive tendency to use corroboration as a means to answer questions about evidence and the conclusions that can be drawn from it.

While the AP students demonstrated the ability to evaluate evidence with some effectiveness, they displayed less facility in defining how evidence could be used to construct a historical argument. In some cases, the AP students were able to describe creative uses of the sources that matched some of the uses noted above. For example, one student said of the Lloyd George memoir, "I would use this source to emphasize the controversial nature of the Battle of Passchendaele," and two others said of the newspaper account that "this newspaper can be useful in explaining exactly what the public understood about the battle at this time" and that "the newspaper account is an intermediary between the battlefront and the people." Another noted of the diary entry that "it could show the tension between the government and the leaders of the army." These interpretations represent sophisticated ideas for individuals who have yet to take a college class.

The majority of the responses from the AP students suggest the difficulty of working with inaccurate and unreliable evidence,

however, and why advanced historical cognition is needed to utilize these materials properly when writing historical accounts. These materials cannot be interpreted at face value, and their utility is found in drawing more subtle, abstract, and nuanced conclusions. For example, citing the actual, literal argument David Lloyd George makes in his memoir to prove that he was powerless to prevent the Battle of Passchendaele would be erroneous. Instead, this source points to arguments about the memory of World War I, how this memory became more controversial over time, and how participants in the decision making that led to the battle sought to insulate themselves from blame. Nothing in Lloyd George's narrative states any of these things explicitly, and it requires imaginative historical reasoning to generate these conclusions. This in turn suggests that the ability to use evidence creatively and conceptually is an example of what separates an expert from a novice in the discipline of history.

This conclusion is evident in how many of the AP students wrote about how they would use the evidence they analyzed. Excluding the exceptions noted above, the uses for this evidence were mostly descriptive and summative in nature and did not push towards abstract ideas. Discussions about Lloyd George's and Gough's arguments were used to present these individuals' views and conclusions about the battle. The ideas found in the dispatch and newspaper were often taken at face value and as factual descriptions of what occurred. Several of the respondents referenced "DBQ" and "argumentative essay" in their answers, seeing the utility of the evidence in question only to summarize specific details found in the various examples. Overall, the AP students were generally able to consider why different types of evidence might be inaccurate. However, with a few exceptions, only the graduate students possessed the adaptive expertise and cognitive sensibility to find creative uses for inaccurate and unreliable evidence that transcended its literal meaning. This finding aligns with other studies of evidence use, which have found that students often see historical artifacts only as testimony, and struggle with using such materials to support or challenge historical claims. That even highly proficient students struggled to find uses for the evidence they analyzed suggests that an important dimension of historical thinking is how historians use evidence to create arguments, and that proficiency in this practice requires significant time, preparation, and training.

Discussion

All Evidence is Useful

Within the literature on historical thinking, terms such as "biased," "trustworthy," "inaccurate," "credible," and "legitimate" are often used to describe historical evidence. These terms carry potentially derogatory and pejorative connotations. For example, if evidence is analyzed to assess its credibility or legitimacy, such an analysis might indicate that it is not credible or not legitimate, suggesting that it is tainted, corrupted, or in some way "bad." While analyzing evidence with these goals in mind might replicate the cognitive processes historians use, it does not effectively replicate the way historians work. Historical evidence that is biased, inaccurate, or unreliable is still useful. The findings here illustrate how historians employ such materials and derive valuable conclusions from them. The data also shows how this evidence leads to interpretations that are more profound than a chronological retelling of an event.

The emphasis on accuracy in historical thinking literature can also place too much emphasis on "what" happened at the expense of analyzing deeper historical questions. The evidence that was provided to the respondents such as newspapers, oral histories, memoirs, and cultural artifacts are important resources for understanding the past, despite their inaccuracies and biases. They do not provide information about the specific events and objective details associated with the Battle of Passchendaele, but they help develop understanding of its deeper meaning, cultural significance, historical legacy, and enduring controversy. These are important conclusions that exist outside of the factual parameters of the event itself and are the sorts of ideas that trained historians would seek to develop in their writing.

On the Nature of Adaptive Expertise

The research design used here sought to explore the idea of adaptive expertise and the extent to which historians unfamiliar with historical content could analyze evidence not only for its meaning, but also for how best to use it to develop an argument. The evidence provided was all unreliable in some way, making its potential utility

less obvious than restating what happened and when. The design used three sets of participants, creating an "expert/expert/novice" framework. How then did the idea of adaptive expertise emerge in the findings? As Wineburg demonstrated, adaptive expertise can be found in the way historians analyze evidence and how historians unfamiliar with specific content use certain "cognitive resources" to find meaning in evidence in areas with which they are not familiar.[44] The findings here suggest that another element of adaptive expertise as it relates to historians and their work is how they use different types of evidence to construct historical interpretations. This is reflected in the fact that the novices for this study were able in many cases to provide reasons why different types of evidence might be inaccurate or unreliable. Aside from some isolated examples, what they could not do was find uses for this evidence that transcended its literal meaning. This separated them from the graduate students, who demonstrated true adaptive expertise by finding creative and sophisticated ways to use different kinds of historical evidence that often replicated the ideas of authorities in the content area. These adaptive experts displayed an innate ability to connect unreliable evidence whose uses were not readily apparent to significant historical conclusions. As the findings here demonstrate, the ability to consider ways to use evidence effectively is an important aspect of the way historians think about their discipline and constitutes an essential element of the cognitive assets that historians employ.

Implications for Instruction

The findings presented in this discussion align with other studies that suggest that "thinking like a historian" is something that is often beyond the capabilities of high school students lacking the experience and training of professionals working in the field.[45] The research here nonetheless provides several implications about how historical thinking is taught in schools. The sources provided in the survey were of generic types, easily accessible, and common across many different time periods of history. These included memoirs, newspapers, published government dispatches, and cultural resources (such as a poem and a painting). The historian participants provided insight into how such materials can be used to generate historical arguments and conclusions. For example, newspapers can

be used to assess how events are rendered for public consumption, cultural resources suggest ways to interpret the legacy of an event, and memoirs can be used to assess how participants seek to shape historical memory. These ideas are useful in providing a template for how to use different (and specific) types of sources to generate interpretations that transcend narrating what happened and when. Further, the findings demonstrate that historical thinking might be less about analysis and more about creative and abstract thinking. These are worthy goals for any classroom and suggest that historical thinking has more to offer pedagogically than simply analyzing documents for specific meaning and biases.

Conclusion

This study was framed with two goals in mind. Given the overwhelming emphasis on testing for accuracy and reliability found in the literature on historical thinking, the design employed in this study sought to explore how historians work with and find uses for evidence that is misleading, inaccurate, or unreliable. This idea was explored through the concept of "utility" and how historians possess an innate ability to find creative ways to use evidence to develop arguments and conclusions. Second, the ability to use evidence creatively constitutes a component of the domain-specific cognitive capabilities that historians possess. To explore these ideas, a methodology using two sets of experts and one group of novices was created in which these groups analyzed various types of unreliable evidence related to a battle from the First World War. One set of experts were prominent WWI historians knowledgeable about the background and context of the evidence, while another set of experts were Ph.D. students at prominent American universities with no specific knowledge of the content. The novices for this study consisted of high school students enrolled in the Advanced Placement Research class who also had some background in creating and executing a research design.

These groups' analyses of the evidence suggest several conclusions. First, the graduate students demonstrated the concept of adaptive expertise by displaying an instinctive ability to not only identify why specific kinds of evidence might be inaccurate, but also how such evidence could be used to develop historical conclusions.

These conclusions not only mirrored the ideas of the content experts, but also reflected imaginative and sometimes counterintuitive interpretations of the evidence in that the potential uses for these materials were not obvious. The ability of the graduate students to identify innovative ways to interpret unreliable evidence and generate conclusions based on it reflects an important dimension of a historian's analytical abilities and should be considered a dimension of the cognitive traits that are embedded in the term "historical thinking." This is evident when comparing the ideas of the graduate students to the AP students. While the AP students could identify why certain kinds of evidence might be inaccurate or unreliable, they could not connect this evidence to the uses noted by the experts and graduate students. Typically, the high school students interpreted evidence exactly for what it said and saw its utility mainly as a way to summarize or paraphrase its main ideas. The graduate students, however, displayed true adaptive expertise by demonstrating the ability to find creative uses for evidence in ways that the novices could not.

More importantly, the research design here was created to illustrate how all evidence is useful and that inaccurate, biased, or unreliable evidence can nonetheless produce important conclusions. Historical thinking literature has often been grounded in testing evidence for accuracy and author bias. While such exercises are cognitively useful, if the goal of historical thinking is to replicate how historians work, a more expansive and tolerant position regarding historical evidence is necessary. Historians do not reject evidence simply because of its biases or inaccuracies. Rather, they consider how best to use it. Indeed, the ability to use diverse kinds of evidence to create valid interpretations might be the most important thing that historians do. The findings also illustrate how such evidence often leads to conclusions that are abstract, conceptual, and more suggestive of the way historians practice their discipline. Moreover, the human experience is defined by lies, inaccuracies, misstatements, exaggerations, embellishments, fabrications, and falsehoods. To ignore this reality and to ignore the evidence that reflects it would lead one to a decidedly incomplete understanding of the past.

Notes

1.   Stéphane Lévesque and Penney Clark, "Historical Thinking: Definitions and Educational Applications," in *The Wiley International Handbook of History Teaching and Learning*, ed. Scott Alan Metzger and Lauren McArthur Harris (Medford, MA: Wiley-Blackwell, 2018), 117-148.

2.   Samuel Wineburg, Daisy Martin, and Chauncey Monte-Sano, *Reading Like a Historian: Teaching Literacy in Middle and High School Classrooms* (New York: Teachers College Press, 2013), 20; Stuart J. Foster and Elizabeth Anne Yeager, "'You've Got to Put Together the Pieces': English 12-Year-Olds Encounter and Learn from Historical Evidence," *Journal of Curriculum and Supervision* 14, no. 4 (Summer 1999): 291; Jean-Francois Rouet, M. Anne Britt, Robert A. Mason, and Charles A. Perfetti, "Using Multiple Sources of Evidence to Reason About History," *Journal of Educational Psychology* 88, no. 3 (September 1996): 480; Susan De La Paz, "Effects of Historical Reasoning Instruction and Writing Strategy Mastery in Culturally and Academically Diverse Middle School Classrooms," *Journal of Educational Psychology* 97, no. 2 (May 2005): 144.

3.   Peter Seixas, "Translation and Its Discontents: Key Concepts in English and German History Education," *Journal of Curriculum Studies* 48, no. 4 (2016): 432. For additional examples of the emphasis placed on accuracy, reliability, and bias when analyzing historical evidence, see Seema S. Ohja, "Using Sources in History Teaching," *MIER Journal of Educational Studies, Trends, and Practices* 6, no. 1 (May 2016): 54-67.

4.   See Samuel S. Wineburg, "Historical Problem Solving: A Study of the Cognitive Processes Used in the Evaluation of Documentary and Pictorial Evidence," *Journal of Educational Psychology* 83, no. 1 (March 1991): 73-87; "On the Reading of Historical Texts: Notes on the Breach between School and Academy," *American Educational Research Journal* 28, no. 3 (Autumn 1991): 495-519; "The Cognitive Representation of Historical Texts," in *Teaching and Learning in History*, ed. Gaea Leinhardt, Isabel Beck, and Catherine Stainton (Hillsdale, NJ: Erlbaum, 1994), 85-135; "Reading Abraham Lincoln: An Expert/ Expert Study in the Interpretation of Historical Texts," *Cognitive Science* 22, no. 3 (July-September 1998): 319-346.

5.   Wineburg, "Historical Problem Solving," 83.

6.   Pat Crosskerry, "Adaptive Expertise in Medical Decision Making," *Medical Teacher* 40, no. 8 (2018): 804; Susannah B. F. Paletz, Kevin H. Kim, Christian D. Schunn, Irene Tollinger, and Alonso Vera, "Reuse and Recycle: The Development of Adaptive Expertise, Routine Expertise, and Novelty in a Large Research Team," *Applied Cognitive Psychology* 27 (July-August 2013): 416.

7.   Wineburg, "Reading Abraham Lincoln."

8.   Wineburg, "Reading Abraham Lincoln," 340.

9.   Wineburg, "Reading Abraham Lincoln," 340.

10.   Discussions about historical cognition include Martin Booth, "Cognition in History: A British Perspective," *Educational Psychologist* 29, no. 2 (1994): 61-69; Arthur Chapman, "Understanding Historical Knowing: Evidence and Accounts," in *The Future of the Past: Why History Education Matters*, ed. Lukas Perikleous and Denis Shemilt (Nicosia, Cyprus: AHDR, 2011), 170-214; Carla van Boxtel and Jannet van Drie, "Historical Reasoning: A Comparison of How Experts and Novices Contextualize Historical Sources," *International Journal of Historical Learning, Teaching, and Research* 4, no. 2 (2004): 89-97; Carla van Boxtel and Jannet van Drie, "Historical Reasoning: Conceptualizations and Educational Applications," in *The Wiley International Handbook of History Teaching and Learning*, ed. Scott Alan Metzger and Lauren McArthur Harris (Medford, MA: Wiley-Blackwell, 2018), 149-176; Jannet van Drie and Carla van Boxtel, "Historical Reasoning: Towards a Framework for Analyzing Students' Reasoning About the Past," *Educational Psychology Review* 20, no. 1 (2008): 87-110; Bruce VanSledright and Margarita Limón, "Learning and Teaching Social Studies: A Review of Cognitive Research in History and Geography," in *Handbook of Educational Psychology*, ed. Patricia A. Alexander and Philip H. Winne, second ed. (New York: Routledge, 2006), 545-570; Samuel Wineburg, "The Psychology of Teaching and Learning History," *Handbook of Educational Psychology*, ed. David C. Berliner and Roger C. Calfee (New York: Macmillan, 1996), 423-437.

11.   Daniel Armond Cowgill II and Scott M. Waring, "Historical Thinking: An Evaluation of Student and Teacher Ability to Analyze Sources," *Journal of Social Studies Education Research* 8, no. 1 (2017): 123; Elizabeth Anne Yeager and O. L. Davis Jr., "Between Campus and Classroom: Secondary Student-Teachers' Thinking About Historical Texts," *Journal of Research and Development in Education* 29, no. 1 (Fall 1995): 3; Elizabeth Anne Yeager and O. L. Davis Jr., "Classroom Teachers' Thinking About Historical Texts: An Exploratory Study," *Theory and Research in Social Education* 24, no. 2 (1996): 151.

12.   Chara Haeussler Bohan and O. L. Davis Jr., "Historical Constructions: How Social Studies Student Teachers' Historical Thinking Is Reflected in Their Writing of History," *Theory and Research in Social Education* 26, no. 2 (1998): 173-197; Foster and Yeager, "You've Got to Put Together the Pieces"; Lauren McArthur Harris, Anne-Lise Halvorsen, and Gerardo J. Aponte-Martínez, "'[My] Family Has Gone Through That': How High School Students Determine the Trustworthiness of Historical Documents," *The Journal of Social Studies Research* 40, no. 2 (April 2016): 109-121; Jeffery D. Nokes, Janice A. Dole, and Douglas J. Hacker, "Teaching High School Students to Use Heuristics while Reading Historical Texts," *Journal of Educational Psychology* 99, no. 3 (August 2007): 492-504; Charles A. Perfetti, M. Anne Britt, Jean-François Rouet, Mara C. Georgi, and Robert A. Mason, "How Students Use Texts to Learn and Reason About Historical Uncertainty," in *Cognitive and Instructional Processes in History and the Social Sciences*, ed. Mario Carretero and James F. Voss (Hillsdale, NJ: Erlbaum, 1994), 257-284; Rouet, Britt, Mason, and Perfetti, "Using Multiple

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13.   De La Paz, "Effects of Historical Reasoning Instruction and Writing Strategy"; Avishag Reisman, "Reading Like a Historian: A Document-Based History Curriculum in an Urban High School," *Cognition and Instruction* 30, no. 1 (January-March 2012): 86-112; Avishag Reisman, "The 'Document-Based Lesson': Bringing Disciplinary Inquiry into High School History Classrooms with Adolescent Struggling Readers," *Journal of Curriculum Studies* 44, no. 2 (2012): 233-264.

14.   De La Paz, "Effects of Historical Reasoning Instruction and Writing Strategy Mastery," 144.

15.   Wineburg, Martin, and Monte-Sano, *Reading Like a Historian*.

16.   Reisman, "The 'Document-Based Lesson,'" 249.

17.   Reisman, "Reading Like a Historian," 88.

18.   Rebecca Jacobsen et al., "Thinking Deeply, Thinking Emotionally: How High School Students Make Sense of Evidence," *Theory and Research in Social Education* 46, no. 2 (2018): 262.

19.   Gaea Leinhardt and Kathleen McCarthy Young, "Two Texts, Three Readers: Distance and Expertise in Reading History," *Cognition and Instruction* 14, no. 4 (1996): 451.

20.   Leinhardt and Young, "Two Texts, Three Readers."

21.   Rosalyn Ashby, Peter J. Lee, and Denis Shemilt, "Putting Principles into Practice: Teaching and Planning," in *How Students Learn: History in the Classroom*, ed. M. Suzanne Donovan and John D. Bransford (Washington, DC: National Academies Press, 2005), 124.

22.   Examples include Rosalyn Ashby, "Students' Approaches to Validating Historical Claims," in *Understanding History: Recent Research in History Education*, ed. Rosalyn Ashby, Peter Gordon, and Peter Lee (London, United Kingdom: Routledge, 2005), 20-33; Keith C. Barton, "'I Just Kinda Know': Elementary Students' Ideas About Historical Evidence," *Theory and Research in Social Education* 25, no. 4 (Fall 1997): 407-430; Veronica Boix Mansilla, "Between Reproducing and Organizing the Past: Students' Beliefs about the Standards of Acceptability of Historical Knowledge," in *Understanding History: Recent Research in History Education*, ed. Rosalyn Ashby, Peter Gordon, and Peter Lee (London, United Kingdom: Routledge, 2005), 91-106; Margarita Limón and Mario Carretero, "Evidence Evaluation and Reasoning Abilities in the Domain of History: An Empirical Study," in *International Review of History Education, Volume 2*, ed. James F. Voss and Mario Carretero (London, United Kingdom: Routledge, 1998), 252-271; Chauncey Monte-Sano, "Beyond Reading Comprehension and Summary: Learning to Read and Write in History by Focusing on Evidence, Perspective, and Interpretation," *Curriculum Inquiry* 41, no. 2 (March 2011): 212-249; Chauncey Monte-Sano and Susan De La Paz, "Using Writing Tasks to Elicit Adolescents' Historical Reasoning," *Journal of Literacy Research* 44, no. 3 (September 2012): 273-299; Perfetti, Britt, Rouet,

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23.   Ashby, "Students' Approaches to Validating Historical Claims," 34; Barton, "I Just Kinda Know," 410.

24.   Chauncey Monte-Sano, "Qualities of Historical Writing Instruction: A Comparative Case Study of Two Teachers' Practices," *American Educational Research Journal* 45, no. 4 (December 2008): 1070; Abby Reisman and Sarah McGrew, "Reading in History Education: Text, Sources, and Evidence," in *The Wiley Handbook of History Teaching and Learning*, ed. Scott Alan Metzger and Lauren McArthur Harris (Medford, MA: Wiley-Blackwell, 2018): 539.

25.   Wayne Journell, Adam M. Friedman, Emma S. Thacker, and Paul G. Fitchett, "Getting Inquiry Design Just Right," *Social Education* 82, no. 4 (September 2018): 202-205.

26.   Keith Jenkins, *Re-Thinking History* (London, United Kingdom: Routledge, 2003), 103.

27.   Reisman and McGrew, "Reading in History Education," 542.

28.   See the College Board's 2017 *AP United States History Course Framework* and the section "AP History Disciplinary Practices" on page 8, <https://secure-media.collegeboard.org/digitalServices/pdf/ap/ap-united-states-history-course-framework.pdf>.

29.   Philip Gibbs, *Now It Can Be Told* (New York: Harper and Brothers, 1920), 474. Howard is quoted from Keith Simpson, "The Reputation of Sir Douglas Haig," in *The First World War and British Military History*, ed. Brian Bond (Oxford, United Kingdom: Clarendon Press, 1991), 141.

30.   Ronan McGreevy, "The Bloody Battle of Passchendaele is Shrouded in Shame for the British," *The Irish Times*, October 12, 2017, <https://www.irishtimes.com/culture/books/the-bloody-battle-of-passchendaele-is-shrouded-in-shame-for-the-british-1.3252508>; Damien Murphy, "Mud, Death, and Despair at the Battle of Passchendaele," *The Sydney Morning Herald*, October 13, 2017, <https://www.smh.com.au/national/mud-death-and-despair-at-the-battle-of-passchendaele-20171013-gz08hj.html>; Tristin Hopper, "The Worst Place on Earth: Images from the Battle of Passchendaele," *National Post*, November 8, 2017, <https://nationalpost.com/news/the-worst-place-on-earth-images-from-the-battle-of-passchendaele>.

31.   The battle was controversial even in the early 1930s, leading civilian and military leaders involved in the operation to distance themselves from responsibility, often by publishing misleading memoirs and post-facto justifications. Two questions about the battle have never been satisfactorily answered, as the evidence is contradictory and inconclusive. First, why the offensive was approved by Britain's civilian leaders at a time when Russia was leaving the war, the U.S. was entering it, the French Army was in mutiny, and two previous large-scale attacks (the Battle of the Somme in 1916 and the Nivelle Offensive in 1917) failed to break the stalemate on the Western Front. The

second question concerned why the attack (which began in July 1917) continued into November 1917, at a time when no breakthrough was imminent, casualties continued to accumulate, and constant rain had turned the battlefield into a quagmire of legendary and infamous proportions. For the political controversy associated with the battle, see John Turner, "Lloyd George, the War Cabinet, and High Politics," in *Passchendaele in Perspective: The Third Battle of Ypres*, ed. Peter H. Liddle (London, United Kingdom: Leo Cooper, 1997); George H. Cassar, *Lloyd George at War* (London, United Kingdom: Anthem Press, 2009). For the military controversy, see Robin Prior and Trevor Wilson, *Passchendaele: The Untold Story* (New Haven, CT: Yale University Press, 1996), 187-193.

32.   For the first quote, see the video, "What is Historical Thinking" at <https://www.teachinghistory.org>. The quote occurs at 0:56 of the video. For the second quote, see "Historical Research Capabilities," UCLA Public History Initiative, <https://phi.history.ucla.edu/nchs/historical-thinking-standards/4-historical-research-capabilities/>.

33.   See the course overviews at the College Board's "AP Research" page at <https://apstudents.collegeboard.org/courses/ap-research> and "AP Seminar" page at <https://apstudents.collegeboard.org/courses/ap-seminar>.

34.   See the research design in Cynthia Shanahan, Timothy Shanahan, and Cynthia Misischia, "Analysis of Expert Readers in Three Disciplines: History, Mathematics, and Chemistry," *Journal of Literacy Research* 43, no. 4 (December 2011): 393-429.

35.   See Lee's point on pages 57 and 58 of Peter J. Lee, "Putting Principles into Practice: Understanding History," in *How Students Learn: History in the Classroom*, ed. M. Suzanne Donovan and John D. Bransford (Washington, DC: National Academies Press, 2005).

36.   First published in 1666, the *London Gazette* is one of the official publications of the British government. To be "mentioned in dispatches" was (and is) considered a great honor. From the end of 1915 until the conclusion of the war, the British Army's dispatches from France were written by General Haig and later published in book form in *Sir Douglas Haig's Despatches (December 1915-April 1919)*, ed. J. H. Boraston (New York: E. P. Dutton, 1920).

37.   Lloyd George's arguments can be found in David Lloyd George, *The War Memoirs of David Lloyd George*, vol. 5 (London, United Kingdom: Ivor, Nicholson and Watson, 1934), 2265, 2267. Gough's can be found in Hubert Gough, *The Fifth Army* (London, United Kingdom: Hodder and Stoughton, 1931), 205, 219.

38.   Sonja Laden, "Recuperating the Archive: Anecdotal Evidence and Questions of 'Historical Realism,'" *Poetics Today* 25, no. 1 (Spring 2004).

39.   See Brian Bond, "British 'Anti-War' Writers and Their Critics," in *Facing Armageddon: The First World War Experience*, ed. Hugh Cecil and Peter H. Liddle (London, United Kingdom: Leo Cooper, 1996), 817-829; Robin Prior and Trevor Wilson, "Paul Fussell at War," *War in History* 1, no. 1 (March 1994): 63-80; Martin Stephen, *The Price of Pity: Poetry, History, and Myth in the Great War* (London, United Kingdom: Leo Cooper, 1996); Dan Todman, *The Great War: Myth and Memory* (New York: Continuum, 2006).

40.   For example, Modris Eksteins, *Rites of Spring: The Great War and the Birth of the Modern Age* (New York: Houghton Mifflin, 1989).

41.   See the arguments in Samuel Hynes, *A War Imagined: The First World War and English Culture* (New York: Macmillan, 1991).

42.   Wineburg, "Historical Problem Solving."

43.   Nokes, Dole, and Hacker, "Teaching High School Students to Use Heuristics While Reading Historical Texts," 501-502.

44.   Wineburg, "Reading Abraham Lincoln," 340.

45.   For example, M. Anne Britt and Cindy Aglinskas, "Improving Students' Ability to Identify and Use Source Information," *Cognition and Instruction* 20, no. 4 (2002): 485-522; Cowgill and Waring, "Historical Thinking"; Leinhardt and Young, "Two Texts, Three Readers"; Steven A. Stahl et al., "What Happens When Students Read Multiple Source Documents in History?" *Reading Research Quarterly* 31, no. 4 (October-November-December 1996): 430-456; Wineburg, "Historical Problem Solving."

Appendix A

Questions and Responses to Quiz about World War I

Question	Correct Answer	Percentage of Graduate Students that Answered Correctly	Percentage of AP Students that Answered Correctly
1) What year did World War I begin?	1914	100%	100%
2) Who was the U.S. president during World War I?	Woodrow Wilson	100%	93% (13/14)
3) In what city was Archduke Franz Ferdinand assassinated in June 1914?	Sarajevo	86% (12/14)	57% (8/14)
4) Who was the ruler of Germany when WWI began?	Wilhelm II	57% (8/14)	79% (11/14)
5) Which of these was another battle from the First World War?	The Somme	50% (7/14)	29% (4/14)
6) Who was the British Prime Minister at the beginning of WWI?	Herbert Asquith	21% (3/14)	7% (1/14)
7) Who commanded the British Army in France from 1915-1918?	Douglas Haig	7% (1/14)	0%
8) Who wrote the poem *Dulce et Decorum Est*?	Wilfred Owen	43% (6/14)	14% (2/14)
9) What was the name of the plan for the German invasion of Belgium in 1914?	Schlieffen Plan	29% (4/14)	14% (2/14)

Appendix B

Perceptions of Passchendaele Lesson Plan

Lesson Title/Topic:
Perceptions of Passchendaele

Essential Question:
Option #1: What role does perspective play when interpreting events surrounding the Battle of Passchendaele?

Option #2: What role does perspective play when interpreting historical events?

Learning Objectives/Assessments/ SWBAT:
Compare and contrast the experiences of different people during World War I. Empathize with participants in the Battle of Passchendaele.
Analyze and evaluate primary documents.
Employ historical thinking skills to determine how perspective shapes history.
Employ historical thinking skills to determine the usefulness of different types of evidence.

Lesson Beginning/Do-Now/Warm Up:
Students should be provided with a list of participants from the First World War. They should reflect on how each person's role in World War I could impact their perspective, memory of the conflict, and how they would describe what occurred. These roles are soldier, general, politician, newspaper reporter, artist.

Instructional Plan:

1) Students should be organized into groups and given ten examples of primary evidence related to the Battle of Passchendaele. These sources differ in form, being letters, diaries, oral histories, paintings, etc. Note that the sources vary in length and complexity, and specific examples can be omitted as is necessary. The various documents, sources, and organizers can be accessed and downloaded via the link below. Students should complete graphic organizer #1, which allows for analysis of this evidence. For each document, students will be asked to make conclusions about the author's identity as well as their perspective and beliefs about the battle. Students should analyze the language used to describe the battle, then reflect on what the author is attempting to emphasize and what conclusions are made (where applicable).

2) After the students complete the first task, they should be given organizer #2, called "Weighing My Argument." The purpose of this organizer is to allow students to analyze sources to determine how they can best be used to create a historical argument. Students should place each source into one of two sides on the table provided and consider whether the documentary evidence related to the Battle of Passchendaele presents it as either a success or a failure.

3) Next, students should reflect on the choices they have made for the placement of each source on the scale. This will require the students to revisit each of the boxes in which they have placed their sources. For each document, they will be asked to create a "weight" for each source on a 1-3 scale. This "weight" indicates the source's usefulness, 3 being the most useful, 2 as somewhat useful, and 1 as least useful. Students should justify their ranking on the organizer.

4) After recording the weight for each of the sources, students should add up the overall amount for each side in order to determine which argument is "heavier." Teacher should then prompt students to consider whether the source material is more suitable for creating an argument as to whether the battle was a success or a failure, and to discuss which sources are the most useful as historical evidence and why (see the "summary" section of the graphic organizer).

Closure / Lesson Assessment Options:
Option #1: Consider the question, "Why is the memory of a historical event often different from the reality?"

Option #2: Consider the question, "Why is evidence that is not factually accurate still important to historians?"

Option #3: Describe an event from American history where participants sought to protect their reputations after the fact (as participants did after Passchendaele and World War I).

Link to Access Documents and Resources:
<https://history.tcnj.edu/wp-content/uploads/sites/150/2020/10/Lesson-Plan-Resources-History-Teacher.pdf>

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Appendix C

Experts' and Graduate Students' Use of Corroboration

"At times, he [Gough] presented the past with greater clarity and insight than we can deduce from other materials produced at the time of the battle."   (*E1, Gough memoir/history*)
"Haig's dispatch is an important source, albeit one with a clear agenda. It is a source intended for public consumption and, as a result, needs to be read alongside primary documents."   (*E2, Army dispatch*)
"I would want to compare this to parliamentary debates and archival sources to know to what extent he [Lloyd George] was telling the full story."   (*G1, Lloyd George memoir*)
"It takes a strong position, which in some ways makes it easier to use, since you can situate it alongside and against other documents and build a full story of the different perspectives and interpretations of the battle."   (*G2, Army dispatch*)
"I would ideally like to check his statements against minutes of meetings which he mentions, and any other memoirs published by people who had also been in the government."   (*G3, Lloyd George memoir*)
"I'm a social and cultural historian, so finding contrasts between how popular sources like newspapers depicted events, versus how they were actually experienced by those involved, is always of interest to me."   (*G4, newspaper editorial*)
"The source makes reference to the perspectives of German military about the consequences of the Battle. Useful, but we are likewise unsure how selectively these sources have been chosen to present a picture which absolves the British high command from responsibility for the loss of life in the Battle (these German sources would also have to be followed up in the original)."   (*G5, Official History*)

"I would use oral history sources in a historical account by juxtaposing them with other sources produced at the time of the events being remembered to highlight potential factual inaccuracies in the narrated course of events (which are often interesting in themselves!)."
(*G6, oral history*)

"Regarding any statements made by Lloyd George regarding the battle, I would want to have corroborating evidence to support his claims."
(*G7, Lloyd George memoir*)

"When using this, I would attempt to locate the primary sources on which the information is based. I would also balance the narrative with sources from the other side of the conflict."
(*G8, Army dispatch*)

"It would be good to compare them with other sources that described Gough's position in the time of war."
(*G9, Gough memoir/history*)

"I would mine it for its footnotes and go the sources themselves. This document appears to be fraught with hidden bias."
(*G10, Official History*)

"I would make sure to counter his statements with statements of other individuals within the British government (when possible) to show the full decision-making process that led to the battle."
(*G11, Lloyd George memoir*)

"However, I would take care to compare Haig's statements to other accounts of his actions (meeting minutes, troop movements) to ensure reliable reporting."
(*G12, Haig diary*)

"He seems to be relying on memoranda and documents, and the historian should examine and compare those herself if available."
(*G13, Official History*)

"I would also like more information on the publication, editing and readership of the novel and with that information could use it to give a sense of how editors, authors, and readers felt about the war during the interwar period, to give a sense of their memory of events."
(*G14, novel*)