In an interview, seventh-grade history student Amy shared her insights about interpreting primary sources:

I think it’s kind of hard because you have to find documents, and then you have to go back and find if it’s right. And then you have to share it with others, and then you have to go back again, and again, and again. And if it’s not right, you still have to check.

Amy’s statement demonstrates her perception of historical thinking—that is, continuously checking and re-checking findings, sharing perspectives with others, and reconsidering assumptions. Historical thinking, a term popularized by Sam Wineburg, involves a scrupulous process of contextual understanding: posing questions, examining secondary and primary texts, developing perspectives, and communicating those perspectives to others. As exemplified by Amy, students’ understandings of inquiry are enhanced through explicit explications of precisely what historical thinking is and exactly how to do it.

Accordingly, heuristic organizers constitute a viable method for illuminating the research practices of historians, by rendering opaque thinking patterns into discernable methods of inquiry. When used as a noun, “heuristic” means “an aid to solving a problem or understanding a procedure.” Thus, a “heuristic organizer” refers...
to a visual device designed to illustrate a procedure—in this case, the cognitions associated with historical inquiry. Borrowing from Wineburg, Jeffery Nokes defined heuristics as the “habits of mind and rules of thumbs”—or, more specifically, the historians’ ways of thinking. In this paper, I shall refer to heuristics interchangeably as visual learning aids and habits of mind, as implied by the topic being discussed. Furthermore, I shall illuminate the power of teaching adolescents to think historically through lessons centered on the processes of historical inquiry. Through a discussion of author-generated heuristic organizers, I highlight conceivable methods for using heuristic tools to enact the structural processes of historical thinking. Quotations from interviews with seventh-grade history students, who participated in historical inquiry lessons, are infused throughout the paper. The heuristic organizers were derived from my interpretations of those students’ experiences, from which I discovered the value of illustrating the abstract nature of historical thinking with specific concrete visualizations. After constructing the organizers, I invited a seventh-grade student, Olivia, to use them to explore a primary source of her choice; her interpretations of Benjamin Franklin’s autobiography are included as examples of a student’s work.

Figure 1: Ambiguous Figure Ground Illusion
Four assumptions underpin my approach. First, Jerome Bruner’s proposition: students of varying ages can acquire aspects of the structural concepts of a discipline, if given enough time and experience. Second, teaching inquiry processes, not just content knowledge, constitutes a vital component to disciplinary learning, thereby enhancing the development of the adolescent learner. Third, learning becomes potent if coupled with extensive time and interaction with a wide array of primary sources, including those possessing conflicting information. Finally, students’ acquisition, understanding, and enactment of inquiry processes may improve with heuristic tools illustrating advanced cognitive structures, thereby enabling learners to understand and to imitate historical cognitions. If used wisely, those tools may aid in fostering independent thinkers, who discover, explore, and “go beyond the information given.”

Acquiring the Language of Historical Inquiry

Responding to a question about what historians do, seventh-grade student Kelsey replied, “They study the past. They research the documents from the people.” Exactly how do historians “research the documents from the people”? Who left those documents and why? In order to understand what historians do, as Kelsey explored, students first need to acquire the language of historical inquiry. Given the specialized nature of inquiry concepts, I advocate using creative visuals designed to assist students with comprehending and remembering the meaning of the terms. To teach the concept of perspective, I invite students to observe optical illusions as holistic entities, then identify which individual images can be seen within the illusions. For instance, the Ambiguous Figure Ground Illusion (Figure 1) portrays six tall granite pillars and five silhouetted human shapes, depending upon the on the perspective or the way in which the viewer visualizes the image. Likewise, a historical perspective constitutes an interpretive framework about an entity (person, place, event, object, or idea) from the past, reflecting the viewer’s vantage point—meaning the lens by which one perceives the past. After sharing the concept of perspective with the students, I ask students to create their own visual representations of historical concepts.

Potential vocabulary words might come from Stephane Lévesque’s components of historical thinking: significance, continuity and
Reflect:
- Ponder acquired perspectives.
- Compare students’ work to prior assumptions/other histories.
- Identify new questions for exploration.

Build Context:
- Establish historical background.
- Capture students’ interests.
- Identify the process of historical inquiry.

Consider Author Histories:
- Prepare outlines/storyboards.
- Write histories as narratives or perspectives.
- Construct histories via museum displays, documentaries, websites, art, performances.

Formulate Questions:
- Brainstorm possibilities.
- Build on students’ interests.
- Practice question construction.

Analyze Primary Sources:
- Examine documents’ origins, meanings, and credibility.
- Compare and cross-check primary/secondary sources.
- Explore developing ideas in journal/organizers.

Analyze Secondary Sources:
- Identify main arguments/themes.
- Compare secondary sources.
- Explore developing ideas in journal/organizers.

change, progress and decline, evidence, and historical empathy. An extended list of vocabulary words might include: inquiry, secondary source, primary source, historiography, context, analysis, interpretation, historical narrative, historical argument, and authorship. The vocabulary words and their associated representations could be displayed as posters on the wall, in photographic slide shows, on a class website, as flash cards, or assembled as classroom games, especially those focused on memory,
drawing, and guessing terminology. For students, acquiring the foundational language of historians enables them to participate more powerfully in inquiry processes and interpretative acts.

**Cognizing Inquiry Processes**

In response to an interview question, “How do historians collect information about history?” middle school student Chad responded:

> By getting documents that people back then wrote, if they wrote any. And trying to figure out… and going back to the times in which these people lived, and what not. So figure out, and dig up, and found [sic] out information on just what happened.

As Chad denoted, historical inquiry comprises a process of figuring out, digging up, and finding out “just what happened” in former times. Precisely, how do historians go “back to the times in which these people lived”? Primarily, they return to the traces (documents and artifacts) left behind, examining those traces for possible insights about the past. As explained by Chad, historians must rely on available documentary evidence about the time period, which at times may seem like navigating foreign terrain with sketchy maps and limited clues about “just what happened.”

Cognizing historical inquiry begins with providing an overarching framework for understanding the process of returning to available documentary evidence. By representing the inherent structures of disciplinary inquiry, as Bruner admonished, heuristics configure the stages and components of inquiry into tight visualizations. For instance, the *Historical Inquiry* (Figure 2) heuristic illustrates the stages of historical inquiry through a cyclical process of contextualization, questioning, analysis (of secondary and primary sources), authorship, and philosophical reflection. As each phase lists specific behaviors for implementation, this heuristic functions as a gestalt, by enabling students to digest the process of historical inquiry both holistically and categorically, meaning that students can perceive the whole and the parts of the model simultaneously. To clarify, gestalt, a theory advanced by Wolfgang Kohler, refers to enhancing the learner’s consciousness (or direct experience) of complex knowledge through the power of seeing the connections between wholes and parts. Simply put, perceiving the whole differs from the perceiving the individual parts.
<table>
<thead>
<tr>
<th>What Do I Already Know?</th>
<th>What Did I Discover?</th>
<th>What Are My Personal Reactions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>…about the topic?</td>
<td>…about the topic?</td>
<td>…about the topic?</td>
</tr>
<tr>
<td>…about the document?</td>
<td>…about the document?</td>
<td>…about the document?</td>
</tr>
</tbody>
</table>

Figure 3: *Insight Journal*

Early integration of this type of comprehensive heuristic, according to David Ausubel, provides students with a fundamental framework for comprehending and assimilating new terminologies and processes. Designed to foster students’ understandings of procedural knowledge, or the processes of inquiry, this heuristic organizer may be used as an instructional model by cyclically guiding students through each phase, with the flexibility to move forward, backward, and diagonally, as needed. While the completed heuristic serves as a curricular model for instructors to teach students
the process of historical inquiry, using a blank heuristic may enable
students to fill in, either individually or collaboratively, concepts
about the building blocks of each stage, as facilitated by the teacher.
As desired, students may choose to integrate visuals, either collected
or constructed, representing the phases of each model. For instance, a
photo of a student peering through a magnifying glass might illustrate
analyzing primary sources. Notably, when students construct and
collect their own visuals as related to the heuristic, they are more
likely to remember and to comprehend the terminology associated
with historical inquiry.

Along with the heuristic, the Insight Journal (Figure 3) invites
students to ascertain their burgeoning assumptions about their
inquiries, organizing them into three columns associated with the
following areas: prior contextual knowledge, discoveries
about evidence or primary source materials, and the affective (or
valuing) insights. The purpose of separating content and procedural
perspectives from valuing perspectives is to teach students to
distinguish their cognitions (rational thoughts) from their emotions,
bases, and internal scripts. Thus, the journal’s third column provides
space for students to confront the emotionally charged aspects of
history, sort through their prejudiced responses, and work through
their moral judgments about the past and its actors.

The aim of this exercise is to increase students’ meta-awareness
of themselves as research instruments, or as human interpreters, with
the associated strengths and weaknesses afforded by their unique
viewpoints, thereby inviting students to explore their perspectives
as similar or different from those of the historical agents. Providing
space for affective insights works with—rather than against—students’
inclinations, thereby recognizing the potency of what historical
philosopher Paul Ricoeur describes as “within-time-ness,” meaning
the interactions of the reader, the text, and the historical agents.20
Simply put, a reader brings his or her life experiences, values, and
perspectives into engagements with texts. Through this exercise,
students may become more aware of their internal scripts and how
those scripts influence their interpretations of the past.

To take an example of a heuristic in action, in Figure 4, Olivia
delineated her thoughts prior to reading Franklin’s autobiography,
in which she distinguished her perspective of Franklin as “amazing”
man who lived “a happy life.” In reading the autobiography, she
attended to Franklin’s life as a self-educated man, an idea reflected by her perspective of Franklin as “amazing.” Possessing limited knowledge of Franklin’s life, she chose to read his autobiography in order to discover what made him “amazing.” For Olivia, her perception of Franklin as a noteworthy figure in history influenced her conceptualization of his autobiography. In order for Olivia to develop more in-depth insights about Franklin, she needed more exposure to the breadth of Franklin’s life experiences and his contemporaries’ perspectives about him. To assist Olivia, a wise teacher might use this organizer to model powerful meta-cognitive and meta-affective thinking about the self as interpreter, then invite Olivia to thoughtfully consider her interests, biases, and perspectives before, during, and after reading the document. With repeated practice, Olivia might recognize the ways in which her prior assumptions about Franklin guided her perceptions of his written representation of himself.
Another heuristic tool, the Vee diagram, created by Joseph D. Novak and D. Bob Gowin, serves as an exploratory tool for fostering probing questions, recording findings, and formulating perspectives. Adapting an application of the Vee diagram to history, the heuristic organizer *Secondary/Primary Sources Findings* (Figure 5) enables students to negotiate the differences and similarities derived from the secondary and primary documents. Designed for use as an ongoing log, the students update the Vee diagram as they encounter new sources; thus, the Vee diagram provides a space for continually recording, revisiting, and re-examining discoveries. Since the nature of a question determines the structure of the Vee diagram, teachers may encourage students to create their own diagrams, suited to represent the composition of their inquiries, thereby enabling their development as self-directed learners, or managers of their own learning.

**Interpreting Primary Sources**

Amy, the aforementioned student, articulated her perception of historians’ work in response to the question “What do historians do?”:
Get artifacts, documents, diaries, anything that will tell about the past, and read them, and try to see if they are correct or not.

As Amy explained, historians “get artifacts, documents, diaries,” then “read them,” and finally “try to see if they are correct or not,” but the precise skills associated with primary document analysis often are difficult to comprehend and articulate. Notably, as evidenced in prior studies, students may grasp components of historical inquiry, such as sourcing, especially when directly taught.

For clarification about the precise skills of historical thinking, Wineburg offered a compelling framework for identifying and understanding the cognitions associated with historical research. In essence, when analyzing primary sources, historians consider three overarching aspects of textual interpretation: representation of text (the meaning of words, phrases, and whole texts), representation of event (the contextual complexities of the event itself, including the document creation as an event), and representation of subtext (the underlying rhetorical meanings of the text as communicated via the author’s intentionality). For instance, in the representation of text, historians comprehend literal meanings of whole texts (i.e., global representation) and parts of texts (local representation) as they continually traverse from part to whole, and from whole to part, in order to explain and to understand the inherent meanings of primary sources. For historians, representation of event moves beyond the external and internal actions of the historical agents to include the origin of a primary source as a distinct event, authored by at least one person from the past. Encouraging students to “read behind the text” means considering the author’s intention, the historical context, and the audience addressed in the text. Accordingly, representation of subtext involves evincing the author’s purposes, including the rhetorical implications, as well as what the document reveals about the author as a historical agent.

The multilayered cognitions typically used by historians can be difficult for teachers to teach and for students to learn. Wise teachers, who acknowledge that adolescents read and think differently from experienced historians, intentionally expose students to experts who think in action, especially about primary sources. Considering this challenge, I share two heuristic organizers, influenced by Wineburg’s model, designed to teach historical thinking with increased precision by making latent cognitions visible
Enacting Historical Thinking with Heuristic Organizers

and discernable. In crafting these heuristics, I integrated Ricoeur’s philosophy of historical memory by inviting students to consider their personal and collective memories, as well as the influences of those memories on their developing perceptions.

To accomplish this, I encourage students to begin thinking historically about primary sources through careful considerations of their positionalities, or what Bruce VanSledright termed as interpreters’ “present temporal bearings” and the ways in which those temporal bearings “impinge on, invade, and configure” historical texts. Recognizing and understanding one’s positionality, as well as those of the past, involves pondering the role memory plays in formulating views. For instance, contemporary politics, media, culture, and life experiences shape students’ encounters with the past; therefore, their collective and individual memories of historical happenings may collide with history’s actualities, including the historical agents’ differing views of their own and others’ experiences. For students, their memories of the past may be shaped by conversations with family and friends, social media, family vacations, and prior engagements with film, websites, and printed material.

The first primary document organizer, Analyzing the Pre-Life of Document (Figure 6), explores the pre-experiences of the primary source (the origin of document), the pre-life of the interpreter (the student’s former memories and perceptions), and the pre-life of the historical agents (the people, objects, or places represented within the document). This organizer invites students to consider their positionalities as related to the historical topic and as influenced by their life experiences, including previous interactions with texts, popular and social media, pageantry, commemorative memorabilia, museums, and other potential influencers. Students also examine the text as situated in the historical context (e.g., political, economic, social, cultural, biographical), indicated by the rectangle at the top of organizer. Given the complexity of the thought processes and terminology, teachers may need to model the use of the organizer in large- and small-group settings and allow the students to practice aspects of the organizer through several lessons.

For instance, in visiting with Olivia about this organizer (Figure 7), she explained her hesitation with completing it since she possessed limited knowledge of Franklin’s life and the historical time period.
As a result, she relied heavily on the contents of the autobiography in order to learn more about Franklin’s life. Certainly, building her historical knowledge through exposure to other sources about Franklin could potentially build Olivia’s confidence. In particular, Olivia needed more lessons on the construction of Franklin’s autobiography, including when, where, why, and how he wrote the autobiography. Given the advanced nature of thinking about the pre-life of the document, Olivia might have benefited from completing this organizer after guided practice with primary document analysis.
The second primary document organizer, *Analyzing a Primary Document* (Figure 8), affords students opportunities to investigate their burgeoning perceptions, the happenings described, and the experiences of the historical agent. This organizer also considers historical context and the document’s rhetorical meanings (subtext). Given the expansive nature of primary source analysis, students may return to any portion of the heuristic as wisely prompted by the teacher, themselves, or their peers. Most likely, students will need to see the teacher or other experienced thinkers model the effective use of the
organizers through scaffolding, making historical thinking accessible through supportive guidance. After completing the organizer, the teacher might lead the class in small- and large-group discussions. Listening and responding to the perspectives of their peers may encourage students to explore their burgeoning assumptions, challenge prior views, or add to their previous understandings.

Once again taking an example of a heuristic in action, in Figure 9, Olivia interprets Franklin’s autobiography by detailing specific facts that she discovered about Franklin’s life. In particular, she respected
Franklin as “self-taught” by referring to him as a “role model” for herself as a student. Regarding the sophistication of Franklin’s language, Olivia shares, “Before reading his book I thought that he was a smart man and reading this book reinforced my knowledge.” For Olivia, Franklin’s writing style and vocabulary, as well as his descriptions of his limited educational experiences, reinforced her perception of Franklin as a self-made man, a view representing a logical interpretation of Franklin’s narration of his own life experiences. Exposure to a variety of primary sources about others’
perspectives of Franklin’s life and contributions might enable Olivia to probe more deeply about Franklin’s readership (of his autobiography) and to consider conflicting viewpoints.

One of the most challenging historical cognitions for adolescent learners is corroborating or cross-analyzing multiple primary sources, with comparisons to similarities and contradictions. Some evidence indicates that students can deepen their contextual understandings of history by first comparing multiple sources and then writing argumentative essays, reflecting more persuasive, accurate knowledge. In my study involving middle school students’ interactions with primary sources from American soldiers and the Women Airforce Service Pilots (WASP) of World War II, students struggled to compare the primary sources with the textbook, instead treating the material from primary sources and the textbook as separate narratives with different accounts to tell. In my study with middle school students and the Texas Revolution, presenting students with conflicting primary sources about a historical event, such as the Alamo, facilitated some students’ abilities to challenge the authority of texts, including the textbook, primary sources, and
popular media, by offering some comparisons between sources.\textsuperscript{37} Providing students with a vast array of primary source material, especially from documents representing competing ideas, may improve students’ abilities to cross-compare texts.

Borrowing from the classic Venn diagram, designed by John Venn to facilitate math students’ complex understandings of logic problems, \textit{Comparing Primary/Secondary Sources} (Figure 10) offers opportunities for students to corroborate multiple sources.\textsuperscript{38} Within the circles, students compare the similarities and differences between the primary sources—notably, the various configurations of two or more circles allowing for more complex comparisons. Any primary or secondary source, including a textbook, can be represented within the Venn circles; additional circles can be added, removed, or reconfigured as needed for the task at hand. The interpretive box is designed for students to share their global insights, including their developing perspectives, after examining the local aspects of the texts. After completing the \textit{Comparing Primary/Secondary Sources} heuristic, the teacher might ask the students to reconsider their historical perspectives about the topics being studied. Returning to the exercise with perspective and optical illusions, the teacher could pose to students, “How might you construct your new optical illusion (or perspective) of the past (phenomena)? Or, what additional ideas support or refute your prior perspective?”

\textbf{Conclusion: Why Use Heuristics?}

Why use heuristic tools to teach historical thinking? By illustrating thinking patterns, the heuristic organizers make visible the cognitive processes of inquiry, enabling students to think with improved direction and intentionality. Akin to following a road map on a journey, heuristics chart a more discernable course through the murky paths of inquiry. One of the benefits of this collection of heuristics is the emphasis on developing students’ meta-awareness of their affective responses, including the influences of collective and individual memory. Notably, the heuristics pattern the thought processes of professional historians interacting with secondary and primary sources. These heuristic organizers serve as guides—not prescriptive worksheets—for teaching the cognitive structures of
historical thinking with clarity and potency. If employed wisely, heuristics serve as constructive tools for clarifying, refining, and advancing students’ in-depth understandings of the historian’s craft.

Without question, teaching historical thinking is a challenging endeavor, one necessitating an investment of time and attention from teachers and students. Given the “high demands on students’ cognitive resources,” students need supportive mentoring, in particular, by interacting with experts (teachers, advanced peers, or historians) who model thinking in action and scaffold inquiry processes. Although young people naturally bring their prior experiences and inherent biases into their engagements with primary sources, students’ interpretative skills often improve with increased guidance, practice, and time. Accordingly, engaging in historical inquiry can be both a stimulating and perplexing endeavor, one requiring foresight, adaptability, and care in order to teach well. With persistence and patience, teachers may cultivate students’ deeper understandings of the cognitive and affective acts of historical thinking.
Notes

1. All students’ names are pseudonyms.
4. Leah Shopkow discusses the challenges of tacit learning and the importance of bringing the unconscious patterns of historical thinking into consciousness; Leah Shopkow, “How Many Sources Do I Need?” *The History Teacher* 50, no. 2 (February 2017): 170-173.
13. Examples of optical illusions can be found on numerous websites, including the National Institute of Environmental Health Sciences, “Illusions,” at <https://kids.niehs.nih.gov/games/riddles/illusions/>.
15. Lévesque, Thinking Historically.
16. Bruner argues for organizing curriculum according to the structures of
discipline, with an emphasis on inquiry and discovery; Bruner, The Process of
Education, 31-32.
19. Ausubel, Acquisition and Retention of Knowledge.
22. Notably, the Vee diagram can be adapted to suit a variety of question formations and contexts. Similar diagrams could be created to represent biographical or collective biographical studies, exploring the relationship between the historical actors and local contexts; see Colby, “Energizing the History Classroom.”
30. Ricoeur, Memory, History, Forgetting.
33. VanSledright, “From Empathetic Regard to Self-Understanding.”
37. Colby, “Contextualization and Historical Empathy.”
40. Colby, “Energizing the History Classroom,” 60-79; Nokes, “Recognizing and Addressing the Barriers.”
In 1940, the Teachers’ History Club at the University of Notre Dame created the “Quarterly Bulletin of the Teachers’ History Club” to improve the learning experience in the history classroom.

By 1967, the expanding collaboration of educators reorganized as the History Teachers’ Association and decided to transform the bulletin into an academic journal—The History Teacher.

In 1972, the association transferred guardianship of The History Teacher to coordinating faculty members at the Department of History at California State University, Long Beach. In the interest of independence and self-determination, the associated teachers incorporated as a non-profit organization.

The Society for History Education, Inc. (SHE) was recognized by the State of California in 1972.

In 2012, the Society began offering full-text, open access to recent archives of The History Teacher at its website, thehistoryteacher.org.

In 2016, The History Teacher entered its 50th Volume, and we look forward to 50 more!