Understanding a future with multiple pasts: Projects on metahistorical understanding

D. Kevin O'Neill, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6 Canada, koneill@sfu.ca
Yifat Ben-David Kolikant, Hebrew University of Jerusalem, Mount Scopus, Jerusalem, Israel 91905, yifatbdk@mscc.huji.ac.il
Joseph L. Polman, University of Missouri-St. Louis, One University Blvd., St. Louis, MO, 63121 USA polman@umsl.edu
Josh Radinsky, University of Illinois at Chicago, 1040 W. Harrison M/C147, Chicago, IL, 60645 joshuar@uic.edu

Abstract: History learning has been of interest to learning scientists for many years, though it has not been investigated as vigorously as the Science-Technology-Engineering and Mathematics (STEM) disciplines. This symposium presents four projects that are united by two goals: helping young learners understand what makes the discipline of history unique, and helping learning sciences researchers understand how insights from research in STEM disciplines may transfer to work in history education. The research spans three countries and both formal and informal learning environments.

Objectives

The discipline of history has been of interest to learning scientists for many years, though it has not been investigated as vigorously as the Science-Technology-Engineering and Mathematics (STEM) disciplines. The participants in this symposium are united by two goals: helping young learners understand what makes the discipline of history unique, and helping learning sciences researchers understand how insights from research in STEM disciplines may transfer to work in history education.

Helping students to understand and appreciate historical accounts has always been difficult work. However as western societies increasingly recognize cultural diversity, a new level of challenge has been added. The pressure to understand and account for multiple accounts of past events is steadily increasing (Banks, 2008; Seixas, 2004; Takaki, 1993), and without an understanding of why two carefully researched, honestly reported historical accounts may disagree, students may hold either a cynical view that history is "written by the victors", or an "anything goes" conception in which all accounts are equally valid. Such conceptions undermine participation in democratic society. This symposium brings together researchers who are addressing this challenge through the design of technology-intensive learning environments.

Theoretical Background: What makes history unique?

At first blush, what historians do may not seem so different from what scientists do. Scientists make careful observations, bring questions to bear on evidence and test possible explanations and interpretations against this evidence (National Committee on Science Education Standards and Assessment, 1996). So do historians (Howell & Prevenier, 2001). However, the historian's questions and the nature of the evidence available to address them are substantially different. Historical questions deal not only with what happened in the past, but with change over time, and with the human significance of events. Even events that have been studied thoroughly before can attain new significance and attract new curiosity as we learn more about "how things turned out." For example, the questions that will be asked about the events of September 11, 2001 will be different 50 years from now than they are today. However the historian (unlike the scientist) cannot "re-run the experiment" under different conditions to answer a specific question.

This begins to suggest how honest, well-trained historians can differ in their interpretation of past events; yet many students do not have mature conceptions about conflicting accounts of the past. This is due largely to the fact that textbook-driven instruction (which is common worldwide) shields students from varying perspectives on historical events and personalities. History textbooks often present a single, homogenized perspective on the events they cover, written in an impersonal "voice of History" (Wineburg, 2001) that obscures the decisions made by the historian in constructing the account.

The participants in this symposium share the goal of developing students' understandings of the reasons why historical accounts may differ. These are part of a larger set of "metahistorical" conceptions

that scholars have studied for many years (Lee, 2004; Shemilt, 2000; Wineburg, 2001), including historical significance, causes and consequences, perspectives, constancy and change. How can learning sciences researchers influence these conceptions, and what previous scholarship will help us?

O'Neill, "Compassionate Canada?"

Together with colleagues at Simon Fraser, O'Neill recently developed a curriculum unit to lead 11th grade Social Studies students to more mature conceptions about why historical accounts differ. Students spent two weeks pursing a thorny historical question using a variety of online source materials, and getting advice along the way from history Ph.D. students serving as "telementors" (Single & Single, 2005). The unit was developed in collaboration with three seasoned Social Studies teachers, whose goal was to develop students' metahistorical ideas without sacrificing the coverage of mandated curriculum.

In the unit, students were invited to interrogate Canada's popular image (echoed in textbooks) as the world's do-gooder. Students were asked "Has Canada become a more compassionate country in the last 100 years?" The design team favored this question because it addressed change over time, and dealt with the entire scope of the year's history curriculum. The unit could thus be used either as a pre-exam review, or (for more adventuresome teachers) to kick off the year.

Based on teacher input, the researchers assembled an online archive of primary source documents covering seven historical cases. Some of the cases illustrate the compassion of Canada's government or its people towards those in need (e.g. Canada's response to Tamil refugees in the 1980s), while others call that compassion into question (e.g. the internment of Japanese Canadians during World War II). In some cases, the government has issued an official apology to people it has wronged, and provided compensation for its past actions; but even in these cases it is not clear what apologies or compensation indicate about how the government or individual citizens might respond to similar cases in the future.

Students were assigned to groups of four, each of which pursued the overarching question of the unit using evidence about a different historical case. This design deliberately orchestrated cognitive conflict between groups of students, and within students' own minds in order to induce conceptual change (Johnson & Johnson, 2009; Limon 2001). As they progressed through the unit, students formulated positions on the central question of the unit, which were critiqued by volunteer telementors. At the conclusion of the unit, a "horseshoe debate" was conducted in which each group presented its stance on the question of the unit based on its assigned case, then literally stood on a large horseshoe shape on the school library's floor to indicate how close it stood to the "yes" (Canada has become more compassionate) or "no" (it has not) side.

The implementation reported for this symposium took place in three sections of Mr. George's Social Studies 11 class at Hanover Secondary, involving almost 90 students. Hanover Secondary is a public school within walking distance of some of the wealthiest and the poorest Vancouver-area neighbourhoods, and serves 500 students whose families speak many heritage languages.

A survey was developed to assess the unit's impact on students' metahistorical conceptions, and was administered to every student, pre and post. Survey questions included:

- What makes somebody a historian?
- Why do historians write new books about events that were already written about before?
- If a historian is learning about the events of a period and finds two stories about them that disagree, what should she do?

Students responded to each question by rating their agreement with four statements that appealed to more or less mature metahistorical ideas described by Shemilt (2000). Statistical analysis of students' responses showed that over the course of the unit, students overall made significant gains in their appreciation of the idea that historians must make educated guesses when evidence is limited. It was also found that when students reported receiving particular kinds of advice from their online mentors (such as alternate interpretations of the sources students were working with) they tended to lose faith in the notion that there is always one true story to be told about a past event (O'Neill & Guloy, 2010).

Our experience showed areas in which the unit design could be improved as well. For example, in whole-class discussions at the end of the unit, some students told us that they felt their answer to the major question of the unit (had Canada become more compassionate) was predetermined as *yes*, because the historical cases depicting a lack of compassion were not matched with similar current-day events. In their view one *had* to assume that improvement had been made in 100 years! It became evident to us and the teacher that his students knew little about cases of abuse in Canada's contemporary environment, though these certainly exist and could be integrated into our materials for future iterations. With further refinement,

the team expects both the curricular framework for this unit and the survey measure of metahistorical conceptions to be useful in many other contexts.

Ben-David Kolikant, "Doing history together": A collaborative investigation by Israeli Jewish and Arab students of their shared past of conflict

The "Doing History Together" project brings Israeli Jewish and Israeli Arab students together to collaboratively investigate their shared past of conflict. In these activities, students use primary and secondary source materials, such as the writings of Jewish, Arab, and British historians, to write historical accounts collaboratively in a Wiki environment. This environment enables students of all backgrounds equal access to the public writing space, and hence to revise, comment, and challenge the text written so far. The project team involves Israeli Jewish and Israeli Arab historians and learning sciences researchers.

This activity design was inspired, in part, by Contact Theory (e.g. Amir, 1969), which describes the conditions that need to be fulfilled in order to have a fertile encounter between people from conflicting groups. For example, in order to promote collaboration and reduce competition among narratives, students have the freedom to choose whether they will write a consensual account on the event, or an analysis of the essence of their disagreement. We encouraged students to pinpoint the issues that the "other side", being mediated by their culture and sense of belonging, chose to ignore, resist, or accept 'automatically' when interacting with historical text (Wertsch, 1998). Our design hypothesis was that such discussion would promote historical thinking and more mature metahistorical conceptions.

A primary objective is to generate awareness that the language one chooses to use encrypts one's ideology (Bakhtin, 1981). The secondary sources that students receive on the Balfour Declaration (an event they study) demonstrate this. In 1917 Lord Balfour, then a minister of foreign affairs in the British government, issued a document addressed to Lord Rothschild, conveying the sympathy of the British government to the establishment of a Jewish national home in Palestine. In Jewish sources the event is referred to as the Balfour declaration, Arab sources call it the Balfour promise. The word "promise" implies a stronger commitment of Britain to the Jews than "declaration" does. Britain made a similar "promise" to the Arabs previously (the Hussein-McMahon correspondence), and hence deceived them.

"Doing history together" has been implemented in two rounds. In the first, six groups at the university level participated. This phase enabled us to fine-tune the assignment and the analysis tools. The second round involved 120 Jewish and Arab high-school students, who were asked to work in foursomes, each including a pair of Arabs and a pair of Jews. Data collected in the second round included questionnaires about students' concerns and expectations (pre and post), students' individual essays concerning the events studied (pre and post), joint essays produced by the foursomes (as well as all drafts), scripts of the e-communication, and post-interviews with a sample of the students.

Four out of six groups at university level produced joint answers, two of which inclined towards the Jewish narrative, and the other two inclined towards the Arab narrative. (The other two groups stopped the conversation in early stages.) Three out of the four completed conversations were "charged" in terms of the moral judgment employed by both Jewish and Arab participants, vis-à-vis the historical agents of the "other" side. The encounter with historians' writings in the presence of interlocutors from the "other side" brought about a growth in students' understanding of history as interpretive in nature. Here we briefly describe two common topics of discussion between bi-ethnic groups.

(a) Terminology. Students discussed terminology either as an outcome of their reading of a source, or when needed, to agree on the terminology to use for the group's joint essay. This segment is taken from a class discussion initiated by a Jewish student (JS1) before the students turned to work in groups:

1. JS1: I read the sources and in one of them instead of Israel it is written Palestine, why?
2. AS1: That's the name. Before you came here.
3. JS1: The place has a name. Israel. You can't change it just because you don't like it.
4. AS1: It is not a matter of liking. I suggest that we search and see how it was entitled in the period we are studying, and use that name.

The different terminology used by the Arab historian bothered JS1, so she initiated a discussion on it, and suggested the name "Israel." The correspondence between her and AS1, an Arab student in lines 2&4, demonstrates "presentism," students bringing present-day controversy to the discussion. In line 4, SA1

(perhaps in an attempt to reduce the tension) suggested to investigate the name used back then. In essence, he utilized historiography as a way out of controversy.

Similarly, when AS2 (an Arab student from another group in the first round) was asked during an interview to describe the dynamics of the discussion within his group, he referred to his group's discussion on the terms "declaration" and "promise": "They [Jewish peers] said 'declaration'. We said 'promise'. So we [Arab peers] [said], 'Listen. It's a declaration but it has the same importance as a promise.' "

(b) Controversy within the sources. All the students noticed that the historians whose writing they read "disagree", i.e. each suggests a different hypothesis about the event. The group responses to the controversy varied. During the pilot study, two groups suggested that each participant try to construct his or her own hypothesis. For example, in the following excerpt, JS3 summarizes the contradictions among historians as to whether Britain was aware of the consequences of issuing the declaration, and suggested this action: "So Friedman [Jewish historian] is basically the only one who says that Britain knew that a Jewish state would be established here and supported it. Sykes [British historian] says the opposite, and so does al-Hout [Arab historian]…. What is your opinion? Your personal opinion?" This brought about vivid discussion in these groups as they constructed a chain of counter arguments to the hypotheses suggested.

Analysis of the second round data shows similarities to the results from the first round. Students' e-discussions were embedded with "hot" (emotional) segments, yet despite the virtual nature of the encounter and the lack of shared personal history, there were few incidents of vandalism (using inappropriate words or deleting the work of others). Further, most groups strove to produce joint answers.

Polman, Narrative metacognition and story diagrams as scaffolds for the critique and construction of history narratives

Working with historians from the Catoctin Center for Regional Studies in Frederick, MD, an intervention was developed in which youth critiqued existing historical narratives, and constructed competing narratives of a local history event. Both critique and construction utilized mediational frameworks aimed at scaffolding the evidence-based and narrative aspects of historical thinking. These activities utilized a four-part model of narrative metacognition and computer-based story diagrams or "storygrams" (Polman, 2006).

This symposium presentation will report on qualitative research from this intervention in which youth critiqued and created "empirical narratives." Interpretation of the student case studies is augmented by structured interviews with two trained historians. The study focused on a summer camp entitled "Telling the Stories of the Past: Creating Digital Documentaries about Controversial Local History". The camp met for six hours per day for one week during summer 2007. Four 12-14 year-old boys (one African-American and three European American) participated. The camp curriculum was co-designed by the author, historians at a regional history center, and the instructor (a doctoral student in American Studies), and focused on local history leading up to and during the United States Civil War.

One highlight of the week related to metahistory was analysis of two "digital documentaries" about the role a regiment played in a battle. Analysis used "narrative metacognition" elements. Metacognition is a powerful aspect of thinking across disciplinary domains (e.g., Bruer, 1993; White & Frederiksen, 1998). The following types of metacognitive practices were used as prompts on a paper form used to scaffold the youth critiques, as the literature suggests they could contribute to more sophisticated understanding of empirical narratives (Polman, 2006): monitoring perspectives, considering precedents, analyzing storytelling craft and symbolism, and recognizing the "story frames" used to "spin" accounts.

Good history teachers encourage learners to focus on the perspectives and biases of those who created the sources they are using, especially in initiatives involving youth in the "doing of history" research utilizing primary sources (e.g., Levstik & Barton, 1997). Similarly, in critiquing the two accounts, the young men in this study readily picked up on the influence of perspective: one youth described how the teller of the first tale was "proud of the Northern fight put up", in contrast to another which characterized the teller of the other tale as taking a "negative perspective". The "precedents" or existing accounts with which the hearer is familiar also influence credibility, and the youth were able to recognize important precedents they recalled related to these accounts. In this case, the youth saw precedents for these tales about a battle in their recollection of other accounts where a regiment was outnumbered like that of the Battle of Thermopole (retold in the movie *300*), or overcame great odds as in *The Lord of the Rings*. The goal of this prompt was to target law-like precedents, where previous legal decisions shape reactions of the courts to new cases which are essentially narratives crafted to link to precedents that will provide beneficial interpretations—and thus legal decisions (Bruner, 2003). But the way the precedents prompt worked for these particular accounts and these youth related more to the third narrative metacognition item, about

storytelling craft—they could see the way that the teller was trying to craft a heroic or tragic tale to appeal to viewers. In literature and language arts classrooms, students often analyze storytelling craft and symbolism that helps create meaning in fictional stories, but such considerations are rare in the context of history or journalism. Nonetheless, compelling metaphors or images, either explicit or implicit, strengthen the reception of empirical narrative texts or multimedia artifacts (Beach and Myers, 2001). In this case, the youth were able to recognize how colors such as red were used to symbolize violence, an upward shot of a soldier statue reinforced the heroic interpretation of one commentary, and tone of voice clarified the negative message of the other commentary. Finally, "frame recognition" is an essential aspect of a critical stance toward empirical narratives. Although accusing political opponents of spin has become commonplace, all sides in political arguments place events in a preferred frame; the question is how honestly or deceitfully. Several authors (e.g., Lakoff 2004) have written on how framing influences meaning interpretation. Critical consumption of empirical narratives can include attention to facts excluded by the narrative frame, as well as unsupported assumptions bolstered simply because they make sense in the storyline. In this setting, the framing of the first tale was seen by the participants in the inclusion of some facts and the exclusion of others. For instance, the pro-regiment story mentioned that the regiment later played a role in the Confederates' surrender at Appomattox; it did not mention any particular soldier's death as described in the more negative account.

A second metahistorical highlight of the intervention was analysis and diagramming of competing interpretations of a local lawyer and U.S. Supreme Court justice's position on slavery. These 12-14 year old boys were challenged by the difficulty of using primary and secondary texts from the 19th century to make sense of the legal and ethical debates around slavery, and we attempted to scaffold their analysis with a story diagram ("storygram") tool. The primitive categories for the version of storygrams explored in this study were based on Wertsch's (1998) interpretation of Kenneth Burke's pentad. Storygrams describe each event using the pentad. Each event is centered on the action (*what* happened), carried out by agents (*who* did it), utilizing cultural tools (*how* they did it), in order to serve goals (*why* they did it), within the context of some scene or interpreted context (*where/when* it happened). In the web-based computer application (http://www.storygraph.org), each element of a storygram can be linked to supporting evidence. After the boys' had initial difficulty diagramming their ideas in the Storygraph computer program individually with reference to the source documents, the group convened as a whole the next day for a group diagramming process, which Polman facilitated. The coaching technique of prompting the learners with questions and suggestions, and then showing them how to do the steps in the Storygraph computer program while they carried out the same steps as the facilitator on their computers proved useful in engaging the youth.

Finally, the camp youth participation in the research, writing, and creation of digital documentaries about a local battle from the U.S. Civil War revealed the utility of metahistorical scaffolds. For this activity, two boys were asked to create stories defending the notion that the battle was a greater victory for the North, while the other two were asked to support the idea that the South was the bigger victor in the battle; they used the Storygraph program to plan their accounts, and were encouraged by facilitators to consider the narrative metacognition elements. The Storygraph computer tool proved particularly useful as a kind of diagrammatic storyboard/outline for evidence-based accounts. It acted as a prop in organizing the gist of the story, and discussing which elements of it were well-supported by evidence, and which were assumptions. Epistemologically, the most difficult aspect of the learning these relatively young children faced was the idea that two accounts that disagree could both be factually accurate, but differ because of perspective and selection. The youth struggled with this notion, as exemplified by initially insisting one side or the other had to "win" the argument about whether the North or South was the greater victor in the battle, until one proclaimed, "maybe it was a tie." Two of the youth acknowledged the possibility of competing perspectives in their statements and narratives, while another chose to discount the competing perspective. After seeing contradictory factual details described in primary sources, the fourth participant dwelled on his personal revelation that "history may not be true."

Radinsky – Building nuanced historical narratives around geographic data

The development of metahistorical reasoning includes learning to make sense of potentially conflicting and contradictory narratives (Lee, 2004). But integrating multiple historical narratives also goes beyond interpreting authored accounts like primary-source documents or secondary-source explanations: it also includes the "emplotment" of what Wertsch (2004) calls "specific narratives" (p. 51) built in classroom discourse. This process of "emplotment" includes constructing the significance of historical data whose meaning might at first appear to be direct and unambiguous.

This study examined the ways high school students and teachers constructed and problematized interpretations of historical census data, displayed in geographic information system (GIS) interactive maps, and constructed multiple ways to make sense of the data observed, within a curricular narrative about the African American Great Migration(s) of the early and mid 20th century. These "emplotments" of the data maps also incorporated historical documents, prior knowledge of students and teachers, and concepts introduced in a mini-lecture and in discussion. The study made use of an online, public-use GIS for browsing and querying historical U. S. census data, *GIS for History* (www.gisforhistory.org), developed by the author (Radinsky, 2008; Radinsky, Loh & Lukasik, 2008).

Common explanatory narratives about the Great Migration in high school textbooks include a standard set of historical actors, themes, and "plot points": African Americans left the South in large numbers to escape poverty, Southern racism, and/or the sharecropping system that had replaced *de jure* enslavement after the Civil War. They moved to Northern cities like New York and Chicago, where industrial jobs were available to them due to the shortage of white workers and the need for military production, both caused by the World Wars. Railroad lines like the Illinois Central were common means of leaving the South, accounting for settlement patterns in these cities.

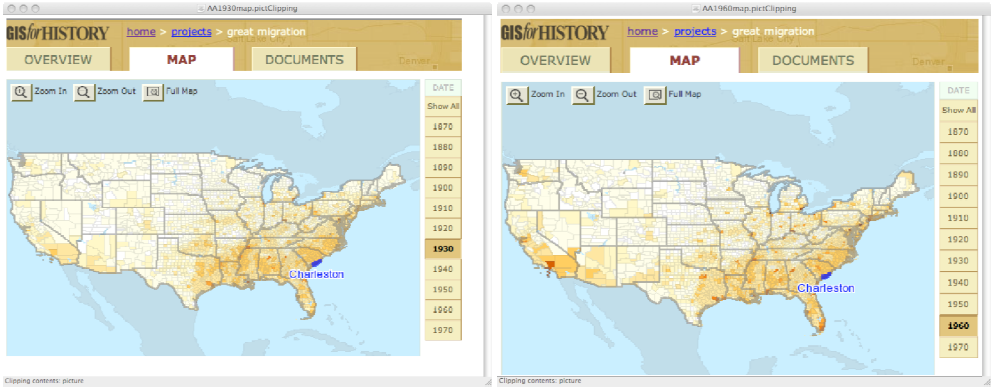

Figure 1. *GIS for History* maps showing African American population (darker shades) by county in 1930 (left), and in 1960 (right).

GIS maps (Figure 1), like historical photographs or documents, can serve to reinforce key points of such a narrative, but can also be used to perturb it, afford questions, or bring out nuances. In this excerpt from a whole-class discussion of the GIS map on the overhead, multiple and competing observations and interpretations emerge for historical phenomena that might have occurred between 1930 and 1960. The excerpt begins as the teacher (the author, who co-taught the unit) has just facilitated a series of observations about where African Americans lived in 1930 (left side, Fig. 2). The class is asked to imagine and predict how the patterns they have observed (i.e., most African Americans living in the Southeast, few in most of the North and West) will change when the map is changed to the census year 1960.

1. Teacher: I'm going to change the year from 1930 to 1960. How is it going to change?
2. Byron: They will start moving.
3. Renee: They'll be mostly in the North
4. Teacher: OK, they will start moving, will be mostly in the North.
5. Kimberly: But they'll be spread more evenly
6. Shakiya: The population may increase too
7. Teacher: {Can you clarify that? What do you mean?}
8. Shakiya: Like, people are gonna have children, and the population will change {because of that}
9. *[TEACHER CHANGES MAP TO 1960 –right side, Fig. 2]*
10. Angela: OK, they may {…} There is more, and they are more spread, going west and north, but it still looks the same
11. Renee: A couple of spots turned red – here in California, and kind of here *[pointing]*

12. Stephanie: {And in Florida and … there are} sprinkles, {and like some} spots.
13. Teacher: So then in Florida {there are some} sprinkles and some spots. Excellent.
14. Stephanie: There are large amounts of {sprinkles}
15. Teacher: {When you say} sprinkles, what does that mean?
16. Stephanie: They are {mainly} in certain places
17. Angela: {They could be} free spaces, where it's like they can have more rights and {freedom}

Here students articulate elements of the standard narrative of the Great Migration: Byron predicts movement (line 2); Renee predicts that they will go to the North (line 3); Angela confirms this with her observation of movement towards the west and north (line 10); and Angela goes on to hypothesize that a search for rights and freedom might be a motivation (line 17).

Even this brief excerpt opens doors to other possible narratives. Renee's prediction that "they will be mostly in the North" (line 3) is problematized by the 1960 map as soon as it appears: in the words of Angela, "it still looks the same." That is, the greatest concentration of African American population remains in the Southeast – "they" are not "mostly in the North," as predicted. This point might indicate the need for a narrative to explain why most African Americans did *not* leave the South during this time.

Another point that emerges is the complex pattern of population concentrations within and across regions, described by Stephanie as "sprinkles" and "spots" (lines 12-16), explainable by migrations of previously-dispersed rural populations into urban centers. Stephanie's observation directly challenges Kimberly's prediction that "they'll be spread more evenly," suggesting competing narratives that might be explored. Also, Stephanie's identification of such "spots" in Florida raises a provocative counter-narrative: in some cases, the Great Migration was a movement *southward.* This seemingly simple "plot point" sets up Angela to hypothesize about the nature of those "spots" not in terms of their geographical placement or urban status, but rather as "free spaces." This is a noteworthy possibility: a narrative about free spaces in the South is substantially outside the traditional plotline, and affords meaningful discussion of how an oppressed people might create "free spaces" in a region that has been associated (in the standard historical narrative) primarily with slavery and sharecropping.

These examples suggest how complex geographic and historical data can become part of a process of problematizing simplified historical accounts. Data showed that the most commonly-articulated explanations by the end of the lesson (identified through coding of student answers on a 4-question pre-post assessment) were predictable parts of the traditional narrative: e.g., that the migration was a move *from* the South (evidenced by 67% of students on the post assessment), and *from* rural areas (evidenced by 50%). However, only 38% specified it as a movement *to* the North, perhaps reflecting these kinds of discussions in each of the four classes studied that troubled the "to the North" narrative. On a map-based assessment, while a majority of students (72%) identified a Northern city as a likely in-migration area, and a Southern rural location as a likely out-migration area (66%), there were 41% who also identified a Southern city as a likely in-migration area (though we had hoped for higher numbers on all of these). Similarly, the number of students mentioning racism as a *push* force for the migration increased from the pre to the post in each class. However, the small amount of the increase (from 24% to 36%) disappointed us. It seems that this mechanism was problematized for students by documents and discussions that revealed the intense racism African Americans encountered in the urban North.

These findings, and others to be presented in the talk, suggest directions for future work exploring the ways multiple, conflicting historical narratives might be productively developed in classrooms and leveraged for teaching metahistorical understanding.

Discussion

Each of the contributions to this session builds upon a unique foundation within learning sciences theory and a unique set of technological affordances, to develop curriculum and pedagogy that promise to enrich students' metahistorical conceptions. In each of the presentations we also see researchers building upon the empirical findings of previous learning sciences research beyond the domain of history. As a whole, the work presented here provides promise that the worth of learning sciences research can transcend current national policy environments and the disciplines in which it has traditionally focused. In the ways explored, students may be brought to an appreciation of how history differs from other disciplines – including its unique strengths and uses, the unique characteristics of the evidence it considers, and the ideologically

"loaded" nature of its narrative framing and the language in which narratives are shared. Students' conceptions of these unique aspects of history may be influenced for the betterment of democratic society by the design of new media and schemes for their use in curricular and extra-curricular settings.

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