

# “Like Hearing From Them in the Past”: The Cognitive-Affective Model of Historical Empathy in Videogame Play

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## ABSTRACT

Historical empathy is a multidimensional construct that involves both the cognitive recognition of the perspectives of others as well as affective engagement with the lived experiences of people in the past. Actively engaging learners with diverse historical perspectives in activities like debate, writing, and role play has been shown to be more effective than traditional instruction in the promotion of historical empathy, but less is known about the effectiveness of videogames in this regard. This case study article examines how historical empathy manifested during play of the videogame *Valiant Hearts*. The results indicate that certain types of game play may promote particular dimensions of historical empathy better than others, and that some dimensions tend to arise spontaneously while others require (or even resist) prompting.

## KEYWORDS

Affective Connection, Education, Empathy, Historical Contextualization, Historical Empathy, History, Perspective Taking, *Valiant Hearts*

## INTRODUCTION

One of the greatest challenges in developing mature historical thought lies within what Wineburg (2001) described as the “tension between the familiar and the strange” (p. 5). Coming to know others, and being able to entertain and understand different perspectives, is a difficult endeavor whether those others lived hundreds of years ago or are currently seated across the aisle. History, Wineburg argued, provides opportunities to practice the kinds of related skills that educate our sensibilities and develop the dispositions that allow us to better perceive the experiences of others. In the context of history education, this construct is often called historical empathy.

Mere knowledge of historical facts does not automatically lead to an understanding of how historical knowledge is constructed. In fact, the persistence of traditional instructional approaches tends to encourage students to rely on history texts to provide answers to historical questions (Wineburg, 1991; Yeager, Foster, Maley, Anderson, & Morris, 1998). Making sense of behaviors and ways of thinking that may at first seem incomprehensible is a difficult intellectual endeavor that requires high levels of thinking (Lee & Ashby, 2001). This, essentially, is historical empathy: Understanding the historical context, attitudes, cultural norms, belief systems, and other factors that may have shaped the actions of people and institutions in the past.

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By fostering awareness that diverse and contradictory viewpoints existed within past societies just as they do today, historical empathy can encourage students to examine how their own values have been shaped by societal and historical contexts (Russell, 2011). Such awareness has implications beyond the classroom in the development of engaged citizens able to acknowledge the merits of differing opinions within a pluralist democracy (Barton & Levstik, 2004).

Although several studies have investigated the effectiveness of some instructional practices—most notably debate, role play, and writing/reflection activities (Levstik & Barton, 2011)—little is known about the effectiveness of videogames in promoting historical empathy. Videogames are immersive, multimodal experiences involving text, video, music, and imagery, and many current titles allow players to engage with content from more than one perspective. As such, they may offer affordances to prepare learners to engage in historical empathy—giving players the ability to look “through the eyes of people in the past” (Levstik & Barton, 2011, p. 121).

This study seeks to contribute to our understanding of those affordances. Through observation, recorded game play, and semi-structured interviews, I examined how children demonstrate historical empathy in a videogame that allows them to play from multiple perspectives, and whether particular types of game play tend to elicit historical empathy more often than others.

## **LITERATURE REVIEW**

Students are left out of the interpretive process when history is put forward as a metanarrative to be learned (Levstik & Barton, 2011). As education has shifted from didactic to more constructivist approaches, educators have recognized problems with presenting history as a factual, objectively true narrative. History, many argue, is not an inert chronicle of events but rather more like what documentary filmmaker Ken Burns has described as a dynamic chorus of voices (Ward & Burns, 1994). History education, therefore, should be an active and interpretive learning experience. Further, the skills honed in the active process of “doing history” have genuine relevance in democratic education, as they are crucial to the development of critical consciousness necessary for enlightened political engagement. Contemporary trends in history and social studies education urge educators to avoid universal, unchallenged metanarratives, instead promoting dialogue that engages with diverse viewpoints and encourages historical thinking (Russell, 2011).

### **Historical Empathy**

Historical empathy results in a better understanding of how perspectives, intentions, beliefs and contexts shaped the actions of people and groups in the past (Lee & Ashby, 1987). As such, it facilitates awareness and understanding of alternate perspectives. Learners tend to ascribe past actions they don’t understand to inferiority, stupidity, or moral deficit—limiting any real progress toward understanding those actions (Lee & Ashby, 2001). Historical empathy, in contrast, is “the ability to see and entertain as conditionally appropriate, connections between intentions, circumstances, and actions, and to see how any particular perspective would actually have affected actions in particular circumstances” (Lee & Ashby, 2001, p. 25).

Barton & Levstik (2004) noted that historical empathy involves both the cognitive exercise of recognizing the perspectives of others as well as affective engagement, or caring with and about people in the past. It is therefore an activity that requires “imaginative intellectual and emotional participation” (p. 207). History education, in this view, entails more than taking on the perspective of another person—it requires the recognition of a multiplicity of historically contextualized perspectives and a sense of “care” that involves an emotional connection with the past. Importantly, forms of caring lead to more active engagement and interest in historical subjects and figures.

Following in this line of thinking, Endacott & Brooks (2013) proposed an updated theoretical model for historical empathy as a dual-dimensional, cognitive-affective construct, noting that such a

view is widely accepted in psychological approaches to empathy. Unlike everyday empathy, however, historical empathy is historically situated. As such, it involves three interrelated elements: Historical contextualization, perspective taking, and affective connection (see Figure 1).

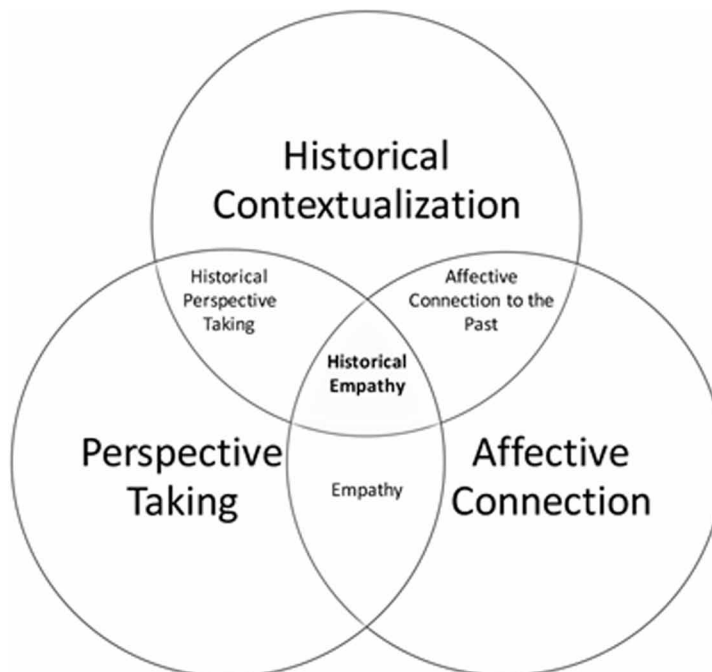
Historical contextualization requires an understanding of the historical context, attitudes, cultural norms, and belief systems that may have shaped the actions of people and institutions in the past, as well as other events and perspectives relevant to a particular time period. Perspective taking is trying to understand what a historical person or group may have thought, and why they acted as they did, based on their lived experience, beliefs, and attitudes. Finally, an affective connection involves finding common ground between the lived experience of a person in the past and one's own similar (yet different) experiences, beliefs, and affective responses to situations and events.

### Videogames for Learning

History is a content area for which videogames have shown a good deal of potential. For one, the gaming industry has continually shown great enthusiasm for commercial games with historical context. Many best-selling videogames, such as the *Civilization* and *Assassin's Creed* series, contain socio-historical themes. Researchers have recognized that this medium provides a “dynamism and capacity for interaction with socio-historical facts...that would be impossible to achieve any other way” (López & Cáceres, 2010, p. 1344). One prominent study that explored those affordances was Squire's (2011) work with students playing *Civilization III*. Through naturalistic case studies of students learning history through the game, Squire's design experiments showed that although students initially interpreted historical game events in terms of their preexisting notions of colonization, playing the game fostered more nuanced, expanded understandings of history.

Playing a historical game from multiple perspectives allows a learner to see the same historical event or period through more than one lens, fostering awareness that people of the past were motivated and influenced by different contextual factors. Encouraging players to reflect on their game play and

Figure 1. Theoretical model for historical empathy (Endacott & Brooks, 2013)



to compare a game's representation of history to primary and secondary sources has the potential to help them achieve more sophisticated understandings (Charsky & Mims, 2008).

While there has been little research investigating the use of videogames to promote historical empathy, recent studies offer promising results. Schrier, Diamond, and Langendoen (2010) observed student pairs playing the *Mission US: For Crown or Colony* (2010) a web-based educational adventure game set in pre-Revolutionary War Boston whose development was led by Channel Thirteen/WNET with grant funding from the Corporation for Public Broadcasting. Using pre- and post- measures to assess students' skills in demonstrating historical empathy, the researchers found that many students developed richer understandings of the motivations and context behind historical characters' alignment with Loyalist or Patriot causes, demonstrated an affective connection to the past, and were better able to provide explanations of different perspectives. The researchers attributed these results to the way the game allowed players to become meaningfully engaged with the past through multiple perspectives, noting that many students were able to "identify emotionally with at least some of the characters and develop feelings about how they were treated and what became of them" (Schrier et al., 2010, p. 267).

Diamond's 2012 study of the same game used player think-alouds, semi-structured interviews, and observations during game play to investigate how 8th graders demonstrated historical empathy. This work examined whether there was a positive relationship between players' ability to construct theories of mind and the level of historical empathy they demonstrated (using Lee & Ashby's 1987 levels of historical empathy as a rubric), the role of prior knowledge as context for perspective taking, and players' meaning-making processes in the game. Although the majority of players did not exhibit "high historical empathy" after playing the game, they were more likely to provide historically contextualized details when asked to explain the behaviors and intentions of characters. These results suggested that players developed more nuanced and context-driven understandings of the characters.

Reflecting on this research, Diamond noted that *Mission US* is "not as robust as more fully developed games might be in terms of the feedback and the complexity of the underlying logic" (2012, p. 274), suggesting a need for future research to explore the potential that other types of videogames—those not developed primarily for educational purposes—may hold for historical empathy. This prior research led to the primary research questions for this study:

1. In what ways does historical empathy manifest through play of a commercial videogame?
2. Do some components of the videogame appear to elicit evidence of historical empathy more frequently than others?

## METHODS

### The Videogame

To explore the potential that commercial games may offer for historical empathy, the videogame chosen for this study was *Valiant Hearts: The Great War* (2014). Developed by Ubisoft, *Valiant Hearts* is a popular World War I themed game, available across a variety of platforms, that was developed in consultation with historians from Mission Centenaire, the French Commission overseeing the WWI centenary commemorative program (Zimet, 2012). Unlike many other war-themed games, *Valiant Hearts* is not entirely focused on action and combat. Instead, the game combines features of the adventure and puzzle videogame genres and uses relatively simple mechanics, potentially making it more appealing to a wider audience (including less experienced players or those not attracted to first-person shooters). Facts and archival photographs that contextualize the experiences of the war are earned as the game progresses; additionally, collectible artifacts are hidden throughout the game environment. Players experience multiple perspectives, including both soldiers and civilians. Diary entries can be unlocked as play progresses, revealing the main characters' motivations and feelings. In sum, this game balances educationally relevant content with entertainment value, is easy to learn

to play, and incorporates elements from different game genres. As such, it has potential to serve as a conduit for players of varying levels of experience to engage with a complex and multifaceted historical period, and seemed an appropriate choice of game for this study.

## Research Design

This study maintained a qualitative focus consistent with the nature of my research questions. My research design was informed by Endacott's (2010) call for future research on historical empathy to employ methods that capture learners' stream of consciousness, allowing us to see more of their meaning-making and decision-making processes and by Squire's (2006) argument that research must account for the mechanisms by which players interpret meaning from the experiences they have in videogames. Therefore, through a case study approach, I collected a rich set of qualitative data to develop an in-depth understanding of the case in an effort to illuminate the central research questions (Creswell, 2008).

## Sample

Participants for this study were recruited via email using a purposeful sampling strategy (Creswell, 2008). Previous research in this area has focused on middle-school and high-school students, so I recruited participants of similar age. Because of the large amount of qualitative data to be collected and the exploratory nature of my research questions, only 4 participants were involved in the study. I recruited participants from the Midwestern United States in same-gender pairs (two self-identified as female, two as male) with the objective of encouraging more interaction and conversation. In the background survey, all participants self-identified as White. The resulting group of participants offered opportunities to compare and contrast across similar cases; by collecting a rich set of qualitative data, I hoped to better illuminate the central research questions (Creswell, 2008). In all coding and data analysis, participant names were replaced with pseudonyms to ensure confidentiality (see Table 1 for participant information).

## Data Sources

Data collected for this study included a background survey / pre-test; game play (which included player statements, recorded observations, and game play data; and a post-test. I used different means of data collection to help inform a more in-depth understanding of the central phenomenon (Creswell, 2008).

The background survey collected basic information including age, gender identification, and grade level. It included Likert-scale questions asking students to rate their frequency of game play and how much they liked social studies/history. In the pre-test, participants answered 5 multiple-choice and 2 true-false questions that assessed their declarative knowledge of WWI. These questions assessed, for example, participants' awareness of the countries involved in WWI, changes in numbers of women entering the work force as a result of the war, and the weapons/technologies used at the time. This pre-test was modeled on the one used by Diamond (2012), and adapted for the WWI time period.

The use of *Valiant Hearts*, which allows players to inhabit the roles of four different fictional characters (based on historical evidence and artifacts) was a response to Endacott's (2010) suggestion

Table 1. Self-reported participant demographic information

	Age	Gender Identity
Deanna	13	F
Beverly	13	F
Julian	13	M
Miles	14	M

that future research should examine historical empathy with different historical figures, rather than the well-known characters who are typically represented in textbooks and documentaries. Given that players can inhabit characters that would have been marginalized during that time period (including Anna, a woman; and Freddy, a Creole-American), the use of this game also seeks to address the call for history education to incorporate the viewpoints of individuals who have traditionally been excluded or stereotyped due to their race, gender, class, or other factors (Russell, 2011).

The game play observation sessions were held in the summer of 2015 in a lab setting. Each participant pair played *Valiant Hearts* on a Windows-based laptop for one 2-hour session. Participants took turns as the active player so that each spent a similar amount of time controlling the game. The sessions were recorded on video, including recordings of the laptop screen during game play, to collect observational data characterizing the way students play the game, the choices made during game play, and to examine any evidence of students who struggled with game mechanics. At specific points, I used a semi-structured interview protocol to encourage participants to reflect on their experiences, their awareness of the historical context, the characters they had encountered and inhabited, and the content of the game level. For example, after playing as the character of Freddy, I began by asking general questions (modeled on the protocol used in Diamond, 2012) such as: “Can you describe Freddy’s situation, or what he was dealing with?” and “What were his reasons for being in the war? How do you know?” I then moved to more specific questions related to historical empathy (modeled on Endacott, 2010) including: “What can you tell me about Freddy’s beliefs, values, and what was important to him?” “Do you think everybody believed these things at the time, or were there people that may have had different perspectives?” “How might Freddy’s perspective have influenced his decisions in the game’s story?” At the end of the game play session, I asked participants general questions about their experience and what they learned from playing the game.

The post-test included the same questions as the pre-test, with the addition of an open-ended question asking participants to reflect on what (if any) historical content and/or characters in the game made an impression on them. I compared post- and pre-test responses to see if any shifts occurred in content knowledge, historical contextualization, and/or historical empathy.

## Data Analysis

My analysis was guided by a constant comparative method (Corbin & Strauss, 2008) in which I systematically identified and coded incidents, compared them for similarities and differences, and aggregated conceptually similar incidents together. Similar incidents were then labeled using higher-level descriptive themes. Approaching the data in this way allowed me to identify the unique properties and dimensions of each theme to distinguish them from each other. Importantly, this process also incorporated theoretical comparisons. Drawing from existing literature on historical empathy, I used informed induction to guide my initial coding process, facilitating a focus that extended beyond mere description to the level of abstraction (Corbin & Strauss, 2008).

Established practices in discourse analysis guided my process for segmenting data. Individual sentences or phrases spoken by participants during game play, as often happens in conversation and discussion, were often part of a larger chain of thoughts and statements. As participants spoke, shifts frequently occurred between the pair (including instances in which one might finish the other’s sentence, add to it, or correct it) and between participant and researcher before participants stopped speaking and/or returned to game play. This type of discourse, involving inherently contextualized units of language production, has been described as utterances (Schiffrin, 1994). Statements, or adjacent chains of statements relating to an event, idea, prompt, or game play event, were considered utterances for the purposes of this study, and used as the unit of analysis.

I began by reviewing all of the video recordings carefully to get a sense of the data, taking some initial notes about what it showed. I then began my initial round of coding by identifying historical discourse in the think-aloud statements and semi-structured interviews. Historical discourse included statements relating to the historical content of the game; statements relating to history in a general

sense; statements relating to the game's historical characters; statements relating to how it might have felt, or what it would have been like, to be one of the characters or to live during the time period in which the game is set; and statements relating to how technology, communication, etc. were different during the game's historical time period than they are today.

I continued this process by identifying game discourse, which was separate and distinct from historical discourse. Game discourse included statements relating to the game (mechanics, genre, difficulty, etc.) that were not directly related to its specific historical content or characters but could potentially reflect the players' level of engagement with the game. I then transcribed all data identified in the mutually exclusive categories of historical discourse and game discourse. Utterances identified as historical discourse and as non-historical, game-related discourse were pulled out and coded as such.

I had previously identified the following game components in the game *Valiant Hearts: Action/Adventure*, Puzzle, Cut Scene, Historical Fact, Diary Entry, and Artifact. Some of these elements are relatively specific to this particular game; others are more common and generally recognized components found in videogames:

- *Action/Adventure* entails taking action within the game; for example, hiding while German patrol passes by, or running across a battlefield trying to avoid enemy fire;
- *Puzzles* often involve a single correct answer or a set of steps that must be completed in the correct order (Tekinbas & Zimmerman, 2003); for example, turning the nozzles on a variety of underground pipes in order to disable a gas leak;
- A *Cut Scene* is an animated sequence that moves the plot forward and helps to explain the characters' backgrounds, motivations, and inner thoughts (Tekinbas & Zimmerman, 2003);
- *Historical Facts* are unlocked during game play in *Valiant Hearts*; each includes an archival photograph and related historical facts; for example, a photograph of a soldier wearing a mask, and a text description of the use of the first chlorine gas attack in 1915;
- *Diary Entries* contain a short written diary entry from one of the game's main characters, often related to their feelings and motivations—such as an entry from Anna expressing her desire to help as many of the wounded as possible;
- *Artifacts* are collectible historical items hidden throughout the game environment. Once collected, the game interface displays an image of the Artifact as well as a description; for example, a deck of cards and an explanation that soldiers played games to alleviate boredom in the trenches.

I performed a content analysis to determine which game components players had encountered when (or immediately prior to) engaging in historical or game discourse. I also flagged utterances as either prompted or unprompted: I coded statements that were elicited by my questions as prompted; spontaneous, unsolicited statements that participants made on their own while playing the game were coded as unprompted.

I continued to use an informed inductive process to code utterances in the data. I carefully reviewed the transcripts and video, developing categories, and revised them through an iterative process in order to reduce overlap and redundancy, in keeping with a constant comparative method. My resulting final themes thus included a combination of emergent categories and categories rooted in existing theoretical frameworks for historical empathy.

Building upon my initial coding criteria, historical contextualization also included utterances relating to contextual details (such as technology, communication, transportation, etc.) that tend to shape historical events, actions, and attitudes. Perspective taking included statements that indicated participants were thinking about what a character's experiences may have been like, what their motives might have been, and an awareness of the "otherness" of that historical character (in other words, a sense that the historical character was differentiated from the player). Affective connection incorporated utterances that reflected participants' recognition of the emotional states of game characters (an essential step in identifying with their feelings and the situations they faced), as well as evidence that

the participants cared about the game’s historical characters and what became of them. Consistent with previous research, codes for the dimensions of historical empathy were not mutually exclusive.

To establish reliability, I conducted an inter-rater agreement check. After reviewing my coding manual and discussing the coding scheme with an independent rater, I randomly selected 20% of the transcribed utterances. After the rater and I independently coded this selection, I calculated reliability using two indices: the kappa coefficient and percent agreement. The average kappa coefficient for our inter-rater reliability check was .9287, and the overall percent agreement was 99.28%. These statistics indicated that overall agreement was quite high. All disagreements were negotiated and resolved.

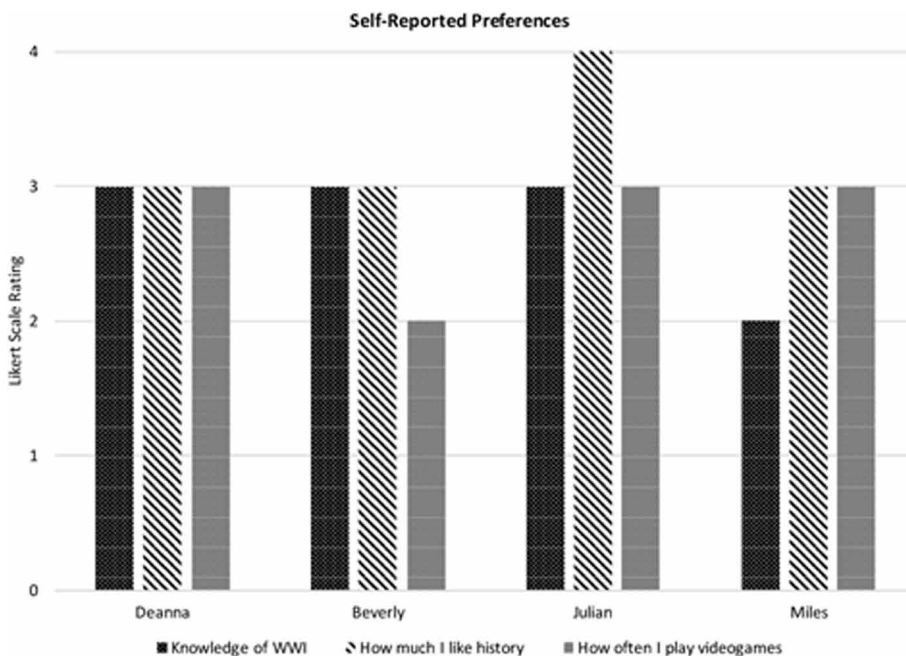
## RESULTS

Data captured in the background survey reflected recent history/social studies grades that ranged from A to B-. On a scale of 1 to 4, the majority of participants reported that they “know some things about WWI” (3 on the Likert scale). In terms of preferences for history on a scale of 1 to 4, the majority reported “I like social studies/history” (a 3 on the Likert scale). Videogame experience was rated on a scale of 1 to 4. The majority of participants chose 3 on the scale = “I play videogames often (once a week or so)”. The results of the background survey are summarized in Figure 2.

### Research Question 1: In What Ways Does Historical Empathy Manifest Through Play of a Videogame?

Since a major goal of this study was to explore what historical empathy looks like in videogame play, it was important to consider patterns that appeared to shape participants’ experience of playing *Valiant Hearts*. Within the category of historical discourse, the emergent themes I identified included stereotypes (with sub-themes for applying and recognizing stereotypes), knowledge application (with sub-themes for accurate and inaccurate/lacking), and engagement with historical content. Table 2 lists and describes each theme.

Figure 2. Participants’ self-reported knowledge, preferences, and experience





**Table 2. Description of emergent historical discourse themes**

Theme	Description
Stereotypes	Utterances relating to stereotypes
Applying stereotypes	Applying stereotypes to individuals or groups represented in the game; oversimplifying historical characters or groups
Recognizing stereotypes	Noticing/identifying stereotypes within the game
Knowledge application	Evidence of participants' content knowledge
Accurate	Applying relatively accurate content knowledge
Inaccurate or lacking	Applying inaccurate content knowledge, or indicating a lack of content knowledge
Engagement with historical content	Indicating a sense of interest in, or curiosity about, the historical content of the game

Of the historical discourse themes I identified, historical contextualization, perspective taking, accurate knowledge application, and engagement with historical content appeared most frequently. Table 3 summarizes number of times each code appeared, as well as the way each was distributed across the three prompting categories.

Some relevant utterances may help to illustrate these historical discourse themes. An example of applying stereotypes occurred when the character of Emile—who was being held captive in a German camp when it was attacked—had to pull a German soldier from the rubble. Upon realizing that the game required her to rescue an enemy, Deanna's response was, "Okay, I'm supposed to help this demon person." Participants also recognized stereotypes while playing, as when Miles commented that many Germans in the game were depicted as "kinda evil," and Julian noticed that their frequent associations with drunkenness and alcohol were "almost stereotypical." Evidence of background knowledge being brought to bear on the game experience came about when participants applied relatively accurate content knowledge—for example, when Julian mentioned a relevant detail he had learned prior to playing: "One of the cool things about trenches that I learned, it was because of this war that the French and British put helmets into their uniforms, because there were so many head

**Table 3. Number of times each historical discourse theme appeared (by prompting category)**

Themes	Unprompted	Prompted During Game	Prompted in Post-Game Interview
Historical empathy			
Historical contextualization	29	48	18
Perspective taking	10	23	51
Affective connection	18	5	16
Stereotypes			
Applying	8	1	0
Recognizing	1	3	0
Knowledge application			
Accurate	35	35	17
Inaccurate/lacking	2	11	6
Engagement with historical content	40	21	14

injuries in the trenches.” In contrast, evidence of a participant’s lack of background knowledge arose when Beverly asked, “Was this the time of The Holocaust, too?” indicating that she was confusing WWI with WWII. Finally, an example of engagement with historical content occurred when the topic of trench warfare appeared to arouse Julian’s curiosity, sparking the question, “I just wonder what, for the guys who made it through most of the war, like what did their back structure look like? Because before the British and French put helmets into their uniforms, to not get head wounds you had to be crouching the entire time.”

One trend that can be seen in this data is the role of prompting in relation to utterances coded for each dimension of historical empathy. Historical contextualization utterances tended to be prompted during the game, perspective taking utterances tended to be prompted in the post-game interview, and affective connection utterances generally arose unprompted during game play. Utterances relating to historical contextualization and affective connection were more likely than perspective taking to come up unprompted during game play.

An example of a prompted utterance, co-coded for all three dimensions of historical empathy, occurred in the post-game interview. After they had finished playing the game, I asked Julian and Miles to describe what it was like to live as a soldier in WWI based on what they experienced in the game:

**Julian:** Well I think there would be, in the beginning I think there would be a little bit of pride. Because, because like war was like a big thing to do, like to go fight in a war. But towards the end I think there would be, because it was dragging out so long, I think there would be nervousness, and...

**Miles:** Maybe even, like, some regret.

In this instance, Julian showed an awareness of the public sentiment surrounding the war, as well as recognition that those perspectives were not monolithic and may have shifted (Endacott, 2010). Both Julian and Miles also seemed mindful of the emotional impact the experience may have had on individual soldiers. This confluence of all three dimensions seems less likely to have been elicited during game play, or unprompted; asking the question appeared to encourage the players to reflect on the whole of their experience during the activity, and to consider the impact the war may have had on people living at the time.

Moving on to game discourse—which was mutually exclusive from historical discourse—I identified the emergent themes of engagement (with two different levels, high and low engagement, within that theme), and blending of player/character. These themes, in a general sense, reflect how engaged players were with the game and the nature of their relationship to the characters they inhabited during play. Table 4 summarizes each theme.

Of the game discourse themes, the most frequently-appearing were high engagement and blending of player/character. These themes tended to appear unprompted during game play. Table 5 shows

**Table 4. Description of emergent game discourse themes**

Theme	Description
Engagement	Evidence of the participants’ level of engagement with the game, divided into mutually-exclusive sub-themes (high/low)
High	Indicating a sense of enjoyment, immersion, and/or interest in completing game objectives
Low	Indicating boredom, lack of enjoyment, and/or lack of interest in completing game objectives
Blending of player/character	Indicating that the player is “inhabiting” the character; a sense that player and character are one

Table 5. Number of times each game discourse theme appeared (by prompting category)

Game Discourse Themes	Unprompted	Prompted During Game	Prompted in Post-Game Interview
Blending of player/character	44	0	0
Engagement			
High	92	4	6
Low	5	0	2

the number of times each theme appeared, as well as the way each theme was distributed across the three prompting categories.

To illustrate these game discourse themes briefly with some exemplars: Julian and Miles showed unprompted evidence of high engagement during the game when a new character, Anna, suddenly appeared driving a car. Visibly excited, Julian exclaimed, “What is that?? Oh!” while Miles shouted, “Oh! Car. DANG. Get hit by the car,” before Julian chimed in with “Whoa!” Beverly, in contrast, indicated low engagement when I asked her whether she enjoyed playing *Valiant Hearts*. She answered, “I didn’t like when we were under the bridge thing. I was like, it’s getting boring!” An example of the blending of player/character occurred when Deanna, playing as the character of Emile, needed to obtain a bottle of wine from a French soldier. While doing so, she spoke to the non-player character in the first person (as if she were Emile), asking: “Okay sir, I’d like your wine?” She then thanked him afterwards: “Okay. Thank you! Now, goodbye.”

In summary, the themes I identified under the main category of historical discourse included the existing themes rooted in Endacott and Brooks’ (2013) framework as well as several emergent themes. Of these, historical contextualization, perspective taking, accurate knowledge application, and engagement with historical content appeared most frequently. I also noted patterns with respect to the role of prompting for historical discourse themes. Additionally, I identified game discourse themes, which mainly arose unprompted during game play. High engagement and blending of player/character appeared much more frequently than low engagement.

### Research Question 2: Do Some Components of the Game Appear to Elicit Evidence of Historical Empathy More Frequently Than Others?

Some components of the game did appear to promote historical empathy more than others. Overall, the largest percentage of codes for historical empathy were applied during, or shortly following, encounters with historical facts at 50% (72). Encounters with artifacts accounted for 23% (33) of historical empathy codes during game play, cut scenes for 15% (21), action scenes for 11% (16), and puzzles for a mere 1% (2).

As shown in Figure 3, codes for historical contextualization were most often applied in relation to historical facts at 59% (46) or artifacts at 27% (21).

Codes for perspective taking occurred most frequently in connection with historical facts at 54% (21) or artifacts at 23% (9), as illustrated in Figure 4. Notably, perspective-taking codes were more likely to be associated with cut scenes at 18% (7) compared to historical contextualization codes at 5% (4).

Codes for affective connection tended to be associated with cut scenes at 37% (10), action scenes at 26% (7), or historical facts 19% (5), as shown in Figure 5.

To summarize the key findings relating to my second research question: Historical facts tended to be fairly effective in prompting historical empathy in general, while puzzles and diary entries were not particularly effective at all in this sense. Through the lens of Endacott & Brooks’ (2013) framework, several components of the game stood out in eliciting the different dimensions of historical empathy. Historical facts and artifacts tended to be associated with evidence of historical contextualization and perspective taking, and cut scenes and action scenes tended to be associated with affective connection.

Figure 3. Relationship between game components and historical contextualization

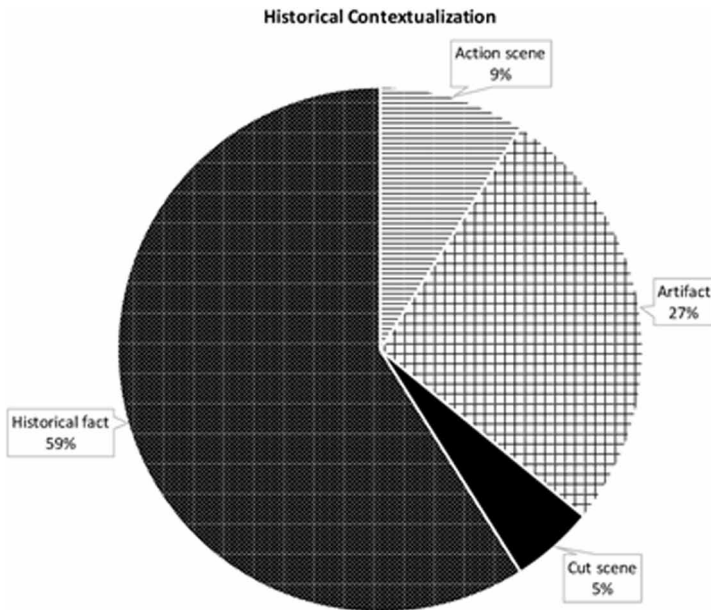
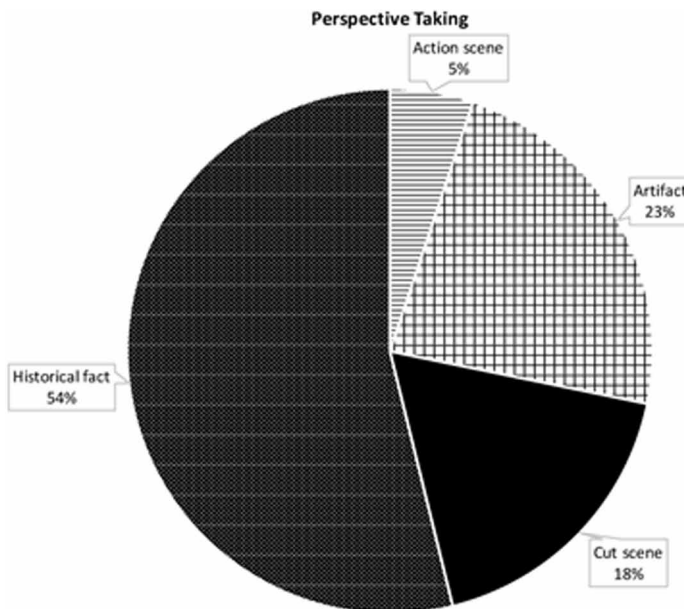


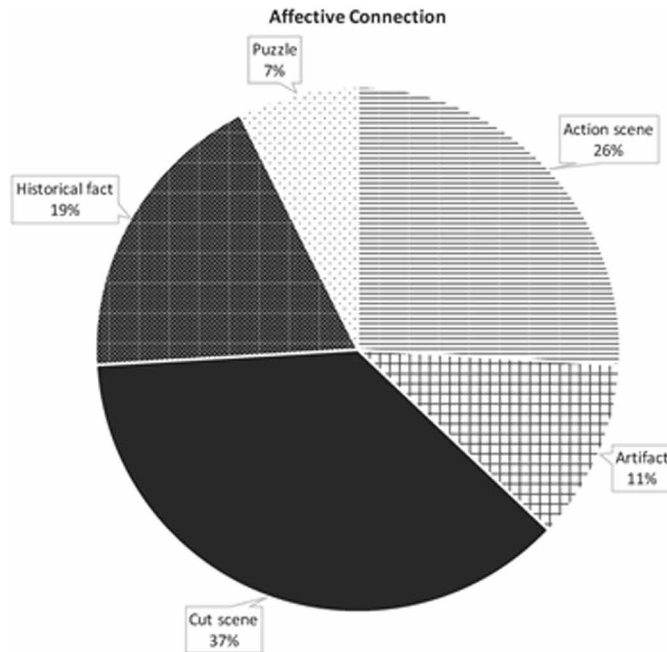
Figure 4. Relationship between game components and perspective taking



## DISCUSSION

Overall, Endacott and Brooks' (2013) multidimensional model proved to be a useful framework for analyzing the ways historical empathy manifests through videogame play. I found that evidence of historical contextualization and perspective taking occurred more often than affective connection. Additionally, I noted differences with respect to prompted vs. unprompted utterances. Most of the

Figure 5. Relationship between game components and affective connection



utterances coded as historical contextualization were prompted during the game, most of the perspective taking utterances were prompted in the post-game interview, and most of those coded as affective connection arose unprompted during game play. Utterances relating to historical contextualization and affective connection were more likely than perspective taking to arise unprompted during game play. Not surprisingly, game discourse themes tended to emerge unprompted during game play (this makes intuitive sense since engagement generally arises spontaneously during an activity). These findings have implications for research. Some dimensions may be elicited more directly by videogames; in fact, affective connection seemed to resist prompting. On the other hand, perspective taking—which was less likely to manifest spontaneously—may need to be encouraged and explored through discussion during or after the learning activity.

Playing the game from more than one perspective provided opportunities for participants to consider the motivations and backgrounds of different characters. At the same time, the participants in this study recognized several problematic stereotypes and oversimplifications in *Valiant Hearts*, such as the villainous, drunken caricatures of some German soldiers. However, these need not disqualify a videogame from being a valuable learning activity. Videogames, like most media, present players with certain models of the world; educators can help students learn to examine and critique those models (Bogost, 2008). Caricatures, oversimplifications, and stereotypes can be used as opportunities to discuss historical interpretation, and bias. For Julian and Miles in particular, oversimplifications tended to spark conversations about the importance of multiperspectivity in history education.

Another consideration illuminated by this study is that, to foster historical empathy through videogame play, it helps if players are engaged with the game itself. This means that players need to be comfortable with a game's mechanics, so that it provides an appropriate balance of challenge and fun (Squire, 2011). The first participant pair, Deanna and Beverly, took much longer to complete game objectives, discovered fewer historical artifacts, and did not progress as far in the game as the Julian and Miles. Deanna and Beverly appeared to struggle with the game's mechanics. For example, Deanna and Beverly took approximately 11 minutes to successfully complete Emile's first battle

sequence, while Julian and Miles took less than 2 minutes to complete the same sequence. The first participant pair also appeared to be less engaged in the activity in general (both anecdotally and as indicated by the application of game engagement codes). It seems likely that these differences were related to varying levels of experience—some of which were captured by the self-reported data in the background survey, with more variation possible in terms participants' preferred videogame genres and platforms. Casual mobile games, for example (like *Candy Crush* or *Trivia Crack*) may not prepare players for a side-scrolling adventure as well as other types of games.

These findings relating to engagement have practical implications: Players who are uncomfortable or unfamiliar with videogames in general, or specifically with certain genres or platforms of games, may tend to focus on getting through the game rather than its historical content. In other words, if players struggle with the mechanics of a game, they are likely to have lower levels of engagement with both the game itself and with its educational content. Therefore, educators would be well advised to consider this when implementing a videogame as a learning activity—perhaps by surveying students about their game experience and preferences, and also by providing initial opportunities for students to become comfortable with a game's mechanics to mitigate the impact of any differences.

In terms of game components, cut scenes and action scenes appeared to be more effective in promoting affective connection within the context of this study. By way of example, an unprompted affective connection utterance occurred after viewing a cut scene depicting the effects of chlorine gas on Emile's fellow soldiers. As the cut scene led into an action sequence, this illuminating exchange between Julian and Miles emerged:

**Julian:** Oh! Don't go there – 'cause there's poisonous gas! Oh!

**Julian:** Okay don't go in there because I'm gonna die.

**Miles:** Chlorine. Oh the dog!

**Julian:** The dog!! Yeah, dog.

*The participants realize they can send the dog ahead, since he is wearing a makeshift gas mask and is able to stay low to the ground beneath the heavy fumes. As the cut scene continues, soldiers begin coughing as toxic gas flows across the field.*

**Miles:** *(makes coughing sound, echoing the soldiers in the game)*

This is an interesting example of affective connection for several reasons. The participants seemed to care about the fate of these historical characters, and were concerned for their safety in light of the dangers they face. There also appeared to be a connection between self and other (related to the player/character blending theme I identified under game discourse, but also reflecting awareness of the difficulties faced by the historical characters). The fact that Miles made a coughing sound in response to the gas, echoing the coughing soldiers depicted in the cut scene, suggests that he was imagining what it would feel like to be in that historical situation; it also seems plausible that he was making a connection to a similar (albeit presumably less dangerous) situation he may have faced himself.

This finding aligns with the work of veteran game designer and author Raph Koster (2005) who has argued that “the largest possibility for emotional engagement” and “the peak emotional moments we remember in games” are provided by cut scenes.

Historical facts and artifacts, on the other hand, tended to elicit evidence of historical contextualization and perspective taking. For example, an instance of historical contextualization arose after participants discovered a historical artifact (a gold button). Miles and Julian read about the brightly colored and adorned uniforms worn by soldiers early in the war, and how this made them easier for opposing forces to spot. I prompted participants to compare that experience to that of a modern soldier, asking how it might have been different to wear a brightly colored uniform (and perhaps to carry a flag into battle):

**Miles:** That's also why like, wars nowadays have like, camo and stuff. So it's like, harder to spot.

**Julian:** And now we're not just wearing one different uniform, it's a uniform for the specific area.

**Miles:** Yeah sure, like the terrain, yeah.

**Researcher:** So it's more connected with the battlefield and where you are, versus your nationality?

**Julian:** Yeah. And now it's easier to manufacture that's...different colors.

Following the discovery of the gold button and engagement with related historical content, Miles and Julian observed that the primary goal of military dress has transitioned from identifying a soldier's nationality to protecting and camouflaging that soldier in a specific environment. They continued to engage in historical contextualization by noting the developments in manufacturing technologies since WWI that have contributed to the varieties of different customized uniforms today.

This preliminary evidence lends support to the argument made by Kapell & Elliott (2013) that videogames which incorporate "historical artifacts, characters, settings, or events, either as a mode of storytelling or as a function of play, create a unique opportunity to affect historical understanding and improve its conventional interpretation" (p. 34). Indeed, it was interesting that historical facts were so effective in promoting historical contextualization and perspective taking, while puzzles and diary entries were not. To extend conclusions made by Diamond in his 2012 work with *Mission US*, it may be that providing players with background knowledge—in the case of *Valiant Hearts*, even in the form of in-game components—better prepares them to engage in particular dimensions of historical empathy. Taken as a whole, these findings may be instructive for those interested in selecting or designing videogames for historical empathy; it may be that each dimension of historical empathy is best promoted by a particular combination of game components.

## LIMITATIONS

This was an exploratory study designed to illuminate a complex construct; as such, there were several important limitations. I used a small sample size to maintain feasibility in light of the large amount of data to be collected and analyzed. The findings reported here have limited generalizability due to the small number and limited diversity of the study's participants, since culture, country of origin, age, and other factors are likely to influence the ways in which players may engage in historical empathy. Additionally, although it shares common elements and features with other videogames, *Valiant Hearts* is just one example of a game about history—one that has its own unique qualities and structure. Therefore, the results of this study are not necessarily generalizable to all videogames with historical content.

Another limitation relates to technical issues that occurred during the first game play session. The screen capture software used in Deanna and Beverly's session slowed down the pace and responsiveness of the game. These participants seemed to be focused on when the activity would end, asking several times how much time was remaining, and demonstrated lower levels of engagement overall. Although there is insufficient evidence to confirm whether the underlying reasons were related to game play experience, the technical issues, or other factors, the result was that Julian and Miles progressed much further into the story than the other participants; being exposed to more content provided more opportunities to engage in discourse.

## CONCLUSION

In their book *Playing with the Past*, Kapell & Elliot (2013) ask, "Do different kinds of games engage with history in different ways?" (p. 4). The results of this qualitative study put forward modest answers to that question. Certain game components appear to be more effective in promoting particular dimensions of historical empathy; players tend to be more likely to engage in historical discourse

when they are engaged with the game itself; and some aspects of historical empathy tend to arise spontaneously while others may require prompting. Educators may therefore wish to select games that feature the most effective game components, to monitor how engaged students are with the game, and to provide opportunities for discussion in order to address all aspects of historical empathy. Similarly, developers may wish to design games that combine the most effective types of game components and, when possible, to provide players with in-game opportunities for reflection.

This study's findings also raise interesting questions about intersections between the blending of player/character and affective connection themes. Given that the affective connection dimension of historical empathy reflects a shifting focus between the self and the historical figure (Endacott & Brooks, 2013), and since emerging research suggests that highly-engaged players who identify with playable characters come may develop emotional connections to those characters (Li, Liao, & Khoo, 2013), might there be a "sweet spot" at which players form a connection with the videogame character they're inhabiting both in terms of engagement and also in a historical sense? Several examples, including my observation of Julian and Miles during the poisonous gas scene, seem to point to such an intersection as a potentially powerful conduit for developing historical empathy through videogame play. With a more robust data set, future studies might engage in a more in-depth analysis of historical empathy that incorporates a theoretical framework for player–avatar identification (Li, Liao, & Khoo, 2013).

In a more general sense, researchers could extend the utility of this study by determining whether these findings can be replicated with a larger and more diverse sample. Additionally, it would be helpful to collect more information about players' experience and preferences for videogame genres and platforms to determine how these prepare players to engage with game content. Ideally, future studies would integrate videogames into the investigative phase of an instructional model to more accurately reflect a pedagogical implementation. A game like *Valiant Hearts* could be used to supplement primary and secondary source activities, allowing learners "to explore the nuances of historical context in depth as well as the thoughts and feelings" of characters (Endacott & Brooks, 2013, p. 48). This approach would help researchers to obtain more qualitative data—perhaps through writing activities, debates, or other assignments—so that a deeper analysis of confounding elements could be conducted. Ensuring that learners are sufficiently introduced to the historical period before playing the game should also provide a stronger foundation for them to engage in evidence-based empathic engagement.



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