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"We can't really know cos we weren't really there": Identifying Irish primary children's bottleneck beliefs about history

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ABSTRACT

While there has been a wave of interest in epistemology as a field of study, there have been few studies focused on primary-aged children and even fewer on their epistemic beliefs about history. Due to the lack of research with younger age groups, much of the explanatory power of the prevailing frameworks in epistemic research has been extrapolated from research conducted with older populations. To address this concern, this paper reports on a series of semi-structured interviews designed to identify primary children's beliefs about the nature of history and historical knowledge. Thematic analysis of the data provided a rich and textured insight into their understanding of the nature of history and historical knowledge and it was found that these beliefs appear to have their origins in both the children's experiences of history and their common sense (or domain-general) ideas of how the world works. This analysis also highlighted a number of "epistemic bottlenecks" (beliefs about the nature of history and historical knowledge that served to constrain historical understanding). Though emergent, these bottlenecks parallel older students' preconceptions of the nature of history. This suggests that if unchallenged, the epistemic beliefs young children form about history in the early years can remain relatively stable throughout their education. Identifying and challenging those beliefs that can constrain student understanding is therefore crucial to both a student's learning experience and the progression of their conceptual understanding of history.

KEYWORDS

Epistemic bottlenecks, children's epistemic beliefs, historical knowledge, historical enquiry, conflicting accounts

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Introduction

Frequently, public discourse claims that young people today do not know any history, citing lack of content knowledge as proof of this (see: Lee & Ashby, 2000; Lowenthal, 1998; Wineburg, 2001); however, as Foster, Ashby and Lee (2008) argue, recall of discrete content items is a poor indicator of historical understanding. In addition to content knowledge, students also need a conceptual understanding of the disciplinary features of the subject. Central to this understanding is an epistemic awareness of how knowledge of the past is constructed, adjudicated and arbitrated (Lee, 1991; Counsell, 2018). The turn towards this interpretative view of historical knowledge has resulted in a move away from approaches to the teaching of history that focus on the transmission of content and towards approaches which develop both content knowledge and disciplinary ways of historical understanding.

Influenced by the revolutions in cognitive and social theories, historical thinking emerged as a conceptual construct which places emphasis on developing in students the epistemological and heuristic skills that are characteristic of an interpretative approach to studying the past (Wineburg, 2001; Lee, 2005). While there are a number of definitions of the term 'historical thinking', most concur that it entails an emphasis on cultivating student competencies in the disciplinary processes of historical work. Thinking historically, however, demands a particular epistemic stance, a stance that requires an appreciation of the complex and multi-layered nature of historical knowledge. Such an approach to the teaching of history, therefore, necessitates a pedagogy that is informed by the epistemological structure of the discipline, and though there may be some contestation around what that might be, one core idea is the centrality of the role of evidence in the construction of historical knowledge.

Historical enquiry is a pedagogical approach to the teaching of history that allows for the generation of such knowledge. Engaging in the process of historical enquiry allows the student to both ask and answer historical questions, interrogate the integrity of evidence, engage with multiple perspectives, construct or deconstruct historical narratives and create their own understandings of the past (Barton & Levstik, 2004). History, when conceptualised as an act of enquiry, requires students to not only search for and construct new knowledge but also to determine its veracity. This requirement to judge the credibility of information connects the study of history to one of the oldest philosophical disciplines in the Western tradition i.e. epistemology. Epistemology studies the nature of truth and how we acquire, understand and validate knowledge (VanSledright & Maggioni, 2016) and an increasing body of research argues that epistemic cognition plays an influential role, not only in teaching and learning, but also in everyday interactions with new information (Hofer, 2016).

Yet while some epistemic beliefs can support an understanding of the intricate relationship between evidence and historical knowledge through cumulative and recursive processes of historical enquiry, others can act as "epistemic bottlenecks" (Ní Cassaithe, 2020; see also Middendorf & Pace, 2004) that, just like bottlenecks on a roadway, are impediments towards developing deeper understanding. If educators are to support progression in historical thinking and understanding, they need to be aware of these bottlenecks and actively challenge them in their teaching.

Young children's epistemic beliefs about history

The beliefs an individual holds about knowledge and knowing have been the focus of a growing body of work on epistemology; however, despite this interest, few studies have concerned children. In fact, some experts query if children can hold beliefs about knowledge and knowing while others accept the construct but question the ability of children to verbalise such abstract ideas (see Moschner, Anschuetz, Wernke & Wagener, 2008). Though limited, there are studies in history education that, while not explicitly focused on epistemic beliefs, provide insights into young children's ideas about history and historical knowledge. One such example is the CHATA

(Concepts of History and Teaching Approaches) project in the UK that sought to map the development of students' ideas about history (Lee & Ashby, 2000). While the project concentrated primarily on 7-14 year olds' ideas about historical accounts and interpretations, it also found that the ideas children have about the nature and justification of historical knowledge play a large part in their learning experiences and can contribute towards their own personal theory of history. Though this six-stage model appears to chart a developmental trajectory moving from objective to more sophisticated levels of thinking, the researchers discovered that children's ideas fluctuated and that some seven-year-old children responded to questions at a higher level than some 14-year-olds. According to the CHATA model (Lee & Shemilt, 2004), students hold a number of epistemological assumptions on the nature of history. Students can view accounts of the past:

- **as given** – the past is treated as if it were the present, accounts are treated as stories that are just 'out there' and competing accounts are just different ways of saying the same thing.
- **as inaccessible** – accounts are not accurate because people in the present were not there to witness the event when it happened and so conflicting accounts are a matter of opinion.
- **as determining stories** - because stories about the past are fixed; if the facts are known, then there is just one true account and conflicts in accounts are due to gaps in information or mistakes.
- **as reported in a biased way** - accounts are copies of the past that can be distorted for ulterior motives.
- **as selected from a particular viewpoint** – accounts are not copies of the past because stories are written from the author's position, perspective and selection
- **as re-constructed in answer to questions in accordance with criteria** because accounts of the past cannot be complete and are created to address particular questions

These findings have been complemented by other studies that give an understanding of primary-aged children's perceptions of history and historical knowledge. A number of these have highlighted a tendency amongst children to view history as a fixed tale or to conflate history and the past (VanSledright, 2014; 2010). For example, Waldron (2003) found that Irish primary children frequently equated the past with history; however, she also concluded that they often held an emergent understanding of the discipline as a field of study that was shaped by their experiences both inside and outside the history classroom. Barton (2008) also emphasised the importance of formal and informal sources in shaping students' understanding of history; however, he noted that, though knowledgeable about historical content, most students at primary level did not understand how historical accounts are formed nor did they appear to have considered the origin of historical knowledge. When engaged with conflicting historical sources, he found that few children understood the evidentiary basis of historical accounts and acted as if knowledge of the past existed independently of the historical evidence. His study of American primary children's understanding of historical evidence showed that when pressed to explain how people in the present know what happened in the past, the majority of students struggled to connect examining historical evidence with the creation of historical knowledge. They also tended to view historical knowledge as either based on handed-down stories or derived from authoritative, canonical books that provide a definitive account of the past (Barton, 1997). Though not situated in the field of epistemic cognition, these studies draw attention to some of the epistemic difficulties students can encounter when thinking historically. In particular, they highlight the importance of providing experiences to challenge the preconceptions they hold about the nature of history and historical knowledge in the history classroom.

Conceptual framework

Influenced by Perry (1970), Kuhn, Cheney and Weinstock (2000) put forward a domain-general three-stage model of epistemic understanding. An Absolutist stance holds that knowledge is objective, derived from the external world and certain; Absolutists view knowledge as an

accumulation of absolute, fixed facts and from this point of view, there is only one right answer. Given this position, multiple perspectives are unattainable. A Multiplist stance indicates a belief that the source of knowledge is within the individual and knowledge is multiple, subjective and uncertain. Multiplists view knowledge as both subjective and contextual and consider conflicting viewpoints and perspectives as equally valid opinions and ideas. From a Multiplist viewpoint, multiple perspectives are considered possible however, all opinions and perspectives are given equal weight. An Evaluativist stance balances the two and recognises that there are various criteria by which to judge truth claims and that these claims need to be critically assessed. Evaluativists play an active role in looking for further information and show a tendency to explore issues and events from multiple perspectives. This model argues that the central feature of epistemic development is the coordination of objective and subjective dimensions of knowing (Kuhn & Weinstock, 2002).

Absolutist and Multiplist beliefs, referred to by Stoel, Logtenberg, Wansink, Huijgen, van Boxtel and van Drie (2017) as naïve beliefs, are generally consistent with the knower assuming a passive role and viewing the past as fixed or a knower adopting an active (but uncritical) role in that interpretations are conceived as simply opinions about the past. More sophisticated or nuanced epistemological beliefs are consistent with the knower accepting the existence of multiple interpretations of the past whilst also acknowledging the disciplinary criteria needed to evaluate evidence. In the study of history, such naïve beliefs can act as "epistemic bottlenecks" (Ní Cassaithe, 2020; Middendorf & Pace, 2004) to constrain historical understandings.

Influenced by the developmental model devised by Kuhn et al. (2000) and drawing on the data from Project CHATA, Maggioni, VanSledright and Alexander (2009) developed a domain-specific, derivative three-stage epistemic beliefs about history model which describes beliefs as being spread across three stances: "Copier", "Borrower" and "Criterialist". This model has proved useful in identifying the epistemic stances of older populations such as upper-secondary students, student teachers and teachers but has not, to date, been applied to younger children; therefore, the original Kuhn et al. (2000) model was used as the orienting framework for this study.

Methodology

This paper draws on data from a larger design-based teaching experiment that sought to identify and then challenge, through the implementation of a series of researcher-designed and theory-informed learning trajectories, the epistemic bottlenecks held by primary children about the nature of history. The semi-structured interviews reported here were part of a pre-intervention suite of instruments which included a Levels of Epistemic Understanding questionnaire (Kuhn & Weinstock, 2002) and historical enquiry tasks. Semi-structured interviews were used because of the complex nature of both epistemology and historical thinking. This allowed for deeper insights that otherwise may have been undetected if a set format of structured questions was rigidly followed. While the interview questions covered a range of topics, only data related to questions of an epistemic nature are presented here (see Appendix for the interview protocol). These questions were designed after the research of Barton (1997) who enquired about primary-level students' understanding of historical evidence.

Participants

Seventeen children were selected from three classes at St. Barnabas Primary School (a pseudonym), Dublin, Ireland. St Barnabas' is a co-educational, Catholic school with 189 children on roll and is located within the inner city. The St. Barnabas' Whole School Plan for History sets out a broad syllabus for each class level which in general corresponds with the content of the school textbook series used by all classes in the school. The school textbook was the predominant form of history teaching that students in Class 3 (3a) and Class 5 (5a) of the study had experienced. Students from Class 4 (4a), however, rarely used the textbook and were very familiar with the process of historical enquiry. Five students from 3a (out of a class of fifteen) were selected using

random sampling to ensure, as far as possible, that the sample was representative of third class students. Six students were chosen from 4a and 5a in the same manner. There was a wide range of achievement across the three groups with five receiving additional support in both literacy and mathematics and three attaining the highest score in standardised tests in literacy. Additionally, four of the children interviewed, though fluent speakers, had English as a second language. All students were born in Ireland.

TABLE 1.1

3rd Class (3a)				
	Participants	**Age**	**Gender**	**Ethnicity**
	Sammy	9	Male	Irish/Indian
	Calvin	10	Male	Irish
	Danny	9	Male	Irish
	Rachel	9	Female	Irish
	Sofia	9	Female	Irish
4th Class (4a)				
	Dawn	10	Female	Irish
	Róise	10	Female	Irish
	Seoda	9	Female	Irish
	Jenna	10	Female	Irish/Nigerian
	Gavin	11	Male	Irish
	Daire	10	Male	Irish
4th Class (5a)				
	Caoimhe	10	Female	Irish
	Eimear	10	Female	Irish
	Katelyn	10	Female	Irish
	Danka	10	Female	Irish/Polish
	Ivan	11	Male	Irish/Russian
	Callum	11	Male	Irish
Total	**17**			

Data analysis

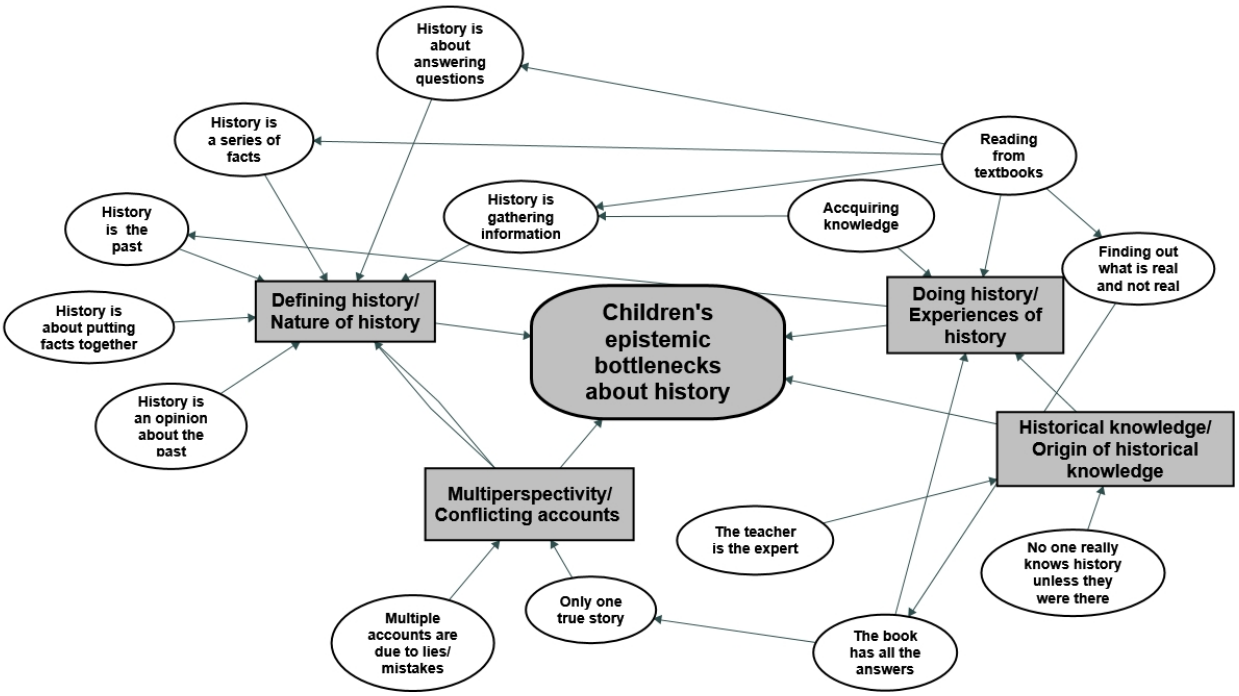
Braun and Clarke's (2006, 2019) six-step approach to thematic analysis was used to analyse the interviews. Thematic analysis involves creating categories of meaning and identifying the relationships between those categories through a systematic process of inductive or deductive reasoning. This involves organising the data into units and assigning them to categories. The interview transcripts were subjected to two rounds of coding. In the first round, it was decided to approach the data by primarily reading and re-reading through the interview transcripts and marking areas of interest (see Table 1.2 for the initial categories). The data analysis software package NVivo was used to manage the interview data.

A second round of coding with a specific focus on the children's epistemic beliefs about history was also carried out. The categories were subjected to an iterative process of revision and refinement as the units were compared and categorised. This constant comparison helped identify how concepts and categories were connected to each other and to build an explanatory model (see Figure 1.1). Four key categories were identified as key indicators of the epistemic bottlenecks the children held. These were defining history, doing history (or experiences of history), origins of historical knowledge and multiple perspectives.

TABLE 1.2 Initial inductive categories

Inductive Codes	Description	Theme
Ability in history	Child's estimation of how 'good' they are at history	**Historical dispositions**
Personal connection	Instances where history has impacted themselves	
Learning history	References to doing history in class	
Positive view of history	Enthusiastic about history	
Negative view of history	References to not liking history	
Neutral view of history	Not bothered about history as a subject	
Defining history	Explaining their own view of history	**Beliefs about history**
Continuity and change	References to how things have changed/stayed the same	
Multiple viewpoints	Recognition that there are other ways to view things	
Characteristics/Role of historians	What traits make someone 'good' at history Describing what a historian does	
People from past	Children's ideas about people from the past	
Evaluating evidence	Examples where children engaged with evidence	
Reconciling Conflicting Accounts	Describing ways conflicts can be adjudicated	
Real or not real	References to real/not real, true/fake	
Acquiring historical knowledge	Sources of historical knowledge	
Importance of genealogy	Family history as a purpose for studying history	
Probing further	Researcher clarifying or pressing further	
Epistemic stance	Indicators of epistemic stances	
Origin of historical knowledge	Origin of historical knowledge – where it comes from	**Historical knowledge**
Doing history/using evidence	References to doing history in class	
Historical references	Historical topic mentioned	
Linking past present or future	Creating links between past, present and/or future	
Evidence as source	Drawing historical knowledge from evidence	
Family as source	Drawing historical knowledge from family	
History books as source	Drawing historical knowledge from books	
Media as source	Drawing historical knowledge from media	
Public history as source	Drawing historical knowledge from museums etc.	
Textbooks as source	Drawing historical knowledge from school text	
Using evidence	Examples where children engaged with evidence	
External/Internal	References to knowledge as internal/external	

FIGURE 1.1 Thematic map



This phase in the analysis also consisted of theoretical thematic analysis (Braun & Clarke, 2006) which involved comparing the themes with the literature related to epistemic beliefs (see Table 1.3). During this analysis, a number of indicators were identified that proved helpful in evaluating the students' epistemic stances. These related to explicit comments about how the students conceptualised the nature of history and historical knowledge and were coded as explicit indicators. Additionally, some comments were conceived as indirect indicators of their epistemic stance and were organized into additional categories such as preferred texts, historical experiences and cognitive activities. These were eventually categorised as Historical Experiences. One additional category was created to contain episodes that appeared to relate to student epistemic beliefs more broadly. These included comments relating to domain-general epistemic ideas about knowledge or conflicting accounts and the role and purpose of history.

TABLE 1.3 Deductive codes

Deductive Codes		
Explicit Epistemic Indicators (Informed by the literature: Lee & Shemilt, 2004; Maggioni et al., 2009; Kuhn & Weinstock, 2002, Nokes, 2014)		
Absolutist (Copier)	**Multiplist (Borrower)**	**Evaluativist (Criterialist)**
Nature of history ● History is the past/is as given/a copy ● History is teaching what happened ● History is remembering facts ● To be good at history you need to have a good memory	***Nature of history*** ● History is opinions about what happened ● Learning history involves guessing about what happened	***Nature of history*** ● History is the study of the past ● Learning history is piecing together evidence to construct interpretations ● Evidence is essential
Historical knowledge ● Historical knowledge is objective ● One-way sources of knowledge to provide factual information ● The teacher/book are preferred sources of knowledge (no consideration of where this knowledge originates – just out there)	***Historical knowledge*** ● Historical knowledge is subjective ● Historical knowledge is transmitted by a sensorial experience or by an external authority	***Historical knowledge*** ● Historical knowledge is constructed ● Historical knowledge is dependent on evidence and the questions asked
Multiple Perspectives ● There is only one way history happened ● Differences in accounts are just other ways of saying the same thing	***Multiple Perspectives*** ● Any account is equally valid ● Nobody really knows what happened ● Multiple viewpoints possible but only one correct version	***Multiple Perspectives*** ● Accounts influenced by perspective or point of view ● the person is an active constructor of meaning/sense-making ● There may be different accounts of historical events but based on valid criteria, one may be more right than the other
Implied Indicator 1: Texts/Sources		
Textbook is the best for learning history. Texts/sources give information	Uncritical acceptance of any source. Texts are opinion based. Evidence is biased	Critical evaluation of artefacts, evidence. Looks at the provenance of the source Evaluates information
Implied Indicator 2: Historical Experiences		
Listening. Teacher lecturing. Reading textbook. Worksheets. True/false exercises. Finding facts	Learning history involves guessing about what happened.	Asking questions. Using evidence for evidence/clues. Detective work – analysis/interpretation. Using different sources. Comparing across sources
Implied Indicator 3: Cognitive Activities		
Remembering/memorizing Questioning (as information gathering)	Guessing, Choosing Challenging without supporting evidence	Analyzing. Enquiring, Problem solving. Questioning. Synthesizing Reading between the lines.
Other Indicators		
Domain general beliefs about multiple perspectives	Purpose of history	Domain general beliefs about knowledge

The transcripts were then examined by applying a combination of the inductive and deductive categories derived from the conceptual framework based on four key themes: the nature of history, the origin of historical knowledge, doing history and reconciling conflicting evidence. The response types are presented in order from Absolutist to Evaluativist and for the most part, these categories were easy to discern. Within the Multiplist category relating to Conflicting Accounts, however, there were subtle shifts in children's explanations for differences in accounts of the same event. These ranged from the acknowledgement of the existence of different claims towards evaluations of multiple accounts that lacked robustness. The differences were fine-grained and seemed to mark a shift from Absolutist thinking. These are categorised from less to more elaborated explanations for the source of conflict in order to show the progression of explanations given (see Table 1.4).

TABLE 1.4 Epistemic Stances

Category	Indicators	Example
Nature of history		
Objective (Absolutist)	History is the past.	It's something that happened in the past, like every second is history.
Factual (Absolutist)	History is facts about the past.	History is like facts from the past.
Relative (Multiplist)	History is opinion or guessing about what happened	There can be false stuff and there can be true stuff. Like there are things that you don't know could be true and things that you don't know that could be false.
Subjective (Evaluativist)	History is the study of the past. History is constructed from evidence	History is built up information that's from the past and historians study it to find out what really happened
Origin of historical knowledge		
Knowledge by acquisition (Absolutist)	Knowledge is acquired through books, teachers experts, passed down (passive)	Like maybe there's one big book that has everything in it? And stuff gets taken from that and put in other books? But only some of it does, that's what I think, not that it's all in one book but that there's a set of books.
Knowledge by experience (Multiplist)	Knowledge is experienced (multisensory)	But you could never know not unless you went back in time. Ha ha! We can't really tell because we can't go back in time so we don't know
Knowledge by enquiry (Evaluativist)	Knowledge is sought through investigation (active enquiry)	Let me think, they could have left clues or things and people look at them and find out what they are, look at things they had in the past and then they look at things they have in the present. That's what they do. They compare them.
Experiences of history/Doing history		
Absolutist	Learning history is remembering information (from text/teacher) To be good at history you need to have a good memory.	History is just remembering things about what happened ages ago. We just, like, read the story and done loads of the questions. That was it.
Multiplist	Learning history involves guessing about what happened	You find evidence [in the textbook] and you have to judge if it's true or not
Evaluativist	Learning history involves piecing together evidence to construct interpretations	• We ask questions. We look at old evidence and photos. • Yes, but I think they are more like barristers really. Detectives use evidence to build up a case, barristers use evidence to prove a point, that's what we were doing here
Conflicting accounts		
Single, objective claim (Absolutist)	No recognition of divergent claims. There is only one answer	There can only be one story, like of Jesus Christ and all. There's only one version of history.
Multiplist (Minus)	Recognition of diverging claims but still only one possible answer. Divergent claims recognised but no attempt to justify why	• It could be different but one of them would be lying. • Like if they didn't know for sure a historian could just make up what I think happened. He could be right or he could be wrong
Multiplist (subjective relativism)	Divergent claims recognised but any account is equally valid	Everyone's entitled to their own opinion.
Multiplist (Plus)	Divergent claims recognised and random justification given for differences (e.g.: numbers, mistakes)	Yeah well if two people had different stories about the same thing, you would see which one got the most amount of votes and then you go with that one.
Evaluativist (uncertain)	Divergent claims recognised and valid justification (e.g. perspective, evidence) given for differences.	Yeah it would be possible because like there is loads of different versions of, like, stuff and stories. Like people can see the same thing happening but understand it differently

In accordance with the ethical protocols of the Research Ethics Committee at Dublin City University, measures were taken to ensure that the children had been given the required information and were supported in developing an adequate understanding of the research. The children were also made aware that they could pull out of the study at any time. The data were collected with the consent of the children and the principle of anonymity was observed as far as was possible in that individual participants and the school were given pseudonyms in all of the research documentation. Parental and/or guardian (informed) consent was also collected for each child to participate in the study.

Limitations

Like all research, this study has several limitations which need to be acknowledged. It is a small-scale qualitative study that took place in one school site and additionally, the lead investigator was researching in her own place of work. Not only was she a member of the teaching staff, she was also the class teacher of Class 4a and, therefore, her subjectivity creates an additional limitation for this research. To offset this, each session was recorded by audio and comprehensive rubrics were devised to create a degree of independence between the researcher and the participants. While the lead author conducted the coding, a reflective journal was kept and both the journal and the coding were shared with the two co-authors, one with expertise in the subject area and one with expertise on the methodology, on a regular basis to sense-check ideas and explore multiple assumptions or interpretations of the data (Braun and Clarke 2013).

Findings

The range of stances and the diversity of the children's thinking that emerged from the interviews highlight the need for educators to be familiar with children's epistemic beliefs about history, particularly the ones that can act as bottlenecks. The following section explores these bottlenecks in detail and begins with the children's definitions of the subject. The majority of the children, just like second-level (see Chapman, 2011) and third-level students (see Miguel-Revilla, Carrill-Merino & Sánchez-Agusti, 2020), conflated history with the past. This influential bottleneck impacted on the children's subsequent perceptions of the origins of historical knowledge and their classroom experiences appeared to solidify these. Similar to studies with older students (Limon, 2002), these ideas were supported by the belief that one cannot know what happened in the past unless one was there to directly observe it. The final section looks at children's ideas about conflicting accounts; a central feature of historical thinking but also a strong indicator of the epistemic beliefs that a student may hold about knowledge in general.

Key epistemic bottlenecks identified:

Nature of history

- History is the past
- History is finding out what is true and false
- History is facts about the past that must be learned
- History is fixed and uncontested
- History cannot change, it has happened already

Nature of knowing

- Historical knowledge exists independently (it is just out there)
- Historical knowledge is derived from internal sources (first-hand experiences etc.)
- Historical knowledge is derived from external, authoritative sources
- Historical knowledge is unknowable (we were not there)
- If there are differences in historical accounts, one must be wrong

The nature of history: History is the past

When asked to define history, the majority of the children referred to history as "the past" and this proved to be one of the main epistemic bottlenecks articulated during the interviews. As Rachel (3a) explained: "like the skipping that we did today, that's history now" and similarly, Dawn (4a) insisted that "even the words I'm saying are history". Like many others, Sofia (1a) was clear that the terms "the past" and "history" were not only synonymous with each other but that every single event anyone encounters can be considered as history. Bain (2005) attributes this conflation to an every-day understanding of the word "history" and argues that this misinterpretation can reinforce the idea that history is but a mirror of the past. Although the words "history" and "the past" share a semantic connection, they are in fact, two very different constructs. While the past can be described as encompassing all events that have happened before this precise moment in time, history is the process of organising those events into comprehensible and connected narratives to allow those in the present make sense of them.

The majority of the children in 4a (who had experienced an enquiry-based approach to history) demonstrated an understanding of the interpretative nature of the discipline that was more consistent with an Evaluativist stance. Gavin (4a) referred to history as "the study of the past" rather than simply the past itself and likewise, Róise stated "history is arguments about the past". Additionally, references were made to the use of evidence to construct historical knowledge: "history is built up information about the past" (Seoda, 4a). Such references were noticeably absent amongst the other two groups. In fact, many (but not all) defined history with respect to practices they engaged with in the classroom. According to Rachel (3a) "history is facts from the past" and Eimear (5a) described history as "remembering and putting facts together". Likewise, Callum saw history as "facts, myths and legends that you can get in your book". These definitions can be linked to the belief that history was both a fixed and objective series of facts rather than the interpretation and analysis of the past. From an epistemic perspective, this view of history highlighted the children's belief in an external reality that exists independently of the knower. From a disciplinary point of view, by removing themselves from the process of actively engaging in historical interpretation, many students viewed history as an objective chronicler of the facts of the past.

The origin of historical knowledge: We can't really know because we weren't really there

When asked about the origin of historical knowledge, the children's answers fell into three overarching categories: knowledge by experience (e.g., through the senses), knowledge by acquisition (e.g., acquired through books, teachers, experts, passed down) or knowledge by active enquiry. The majority of students, particularly from 3a and 5a, fell into the first two categories whereas the children from 4(a) referred on numerous occasions to the construction of historical knowledge through using evidence. As Jenna (4a) stated: "We can be history detectives. We look at old pictures… we can see lots of differences from then and now. We can also learn from diaries and census and old carvings from long ago". The majority of these children viewed themselves as historians and articulated their own contribution to the generation of historical knowledge.

In contrast, and reflecting the view that history is a mirror of the past, when asked where historians get their information from, Sofia (3a) replied "they get it from the past" as if historical knowledge was simply something that one could reach into the past and collect. Sammy (3a) also shared the belief that historical knowledge was obtained directly from the past itself but when probed for further clarification added that as the past no longer exists, it is impossible to know what actually happened: "Well, history is ages ago so if they were dead, we would never know because it's over. I don't really know, cos if it happened in history, how could you tell?" In this statement, Sammy touched on what can be considered as another epistemic bottleneck: a belief that much of the past remains unknowable because it was not personally experienced. Katelyn also expressed this belief and remarked, "We can't really know history because we weren't really

there". This idea of a knowable past based on direct experience was very evident in the children's comments about historical knowledge.

In this study, the students initially seemed puzzled when asked to consider the origin of historical knowledge. Immediate responses to the question included: history textbooks, the teacher or media, and the internet itself. Seoda (4a), for example, identified Google as a source of knowledge but cautioned that sometimes it could be wrong. Danny (3a) was initially certain that all information comes from technology, especially iPhones, and seemed perplexed when asked where iPhones got the information from. After a number of attempts, he eventually settled on a transmission model and stated that further historical information could be obtained from "a person in the museum" who gets his information from "his mam or his dad and from their mams and dads". Like Danny, many children revised their initial answers when pressed further about the origin of historical knowledge. It was apparent from her initial comments that Sofia (3a) had never considered many of these issues before and her responses were immediate reactions to the questions posed. When given time to think, her responses became somewhat more considered (see an excerpt of Sofia's interview in Appendix B). Her comment "it's making sense to me now that I am thinking about it" seemed to capture a small shift in her epistemic thinking that may have been prompted by the discussion itself. Reflecting upon this unknowable past caused her to think about how knowledge of the past might be constructed and she considered a range of plausible explanations. This resulted in a move from the idea that knowledge comes directly from the past towards the idea that historical knowledge can be derived from oral testimony.

Many students articulated a belief in oral testimony, using a transmission model to explain how people find out about events in the past. They suggested that information was handed down in families by word of mouth until, eventually, "somebody in the family thought to write it down". As Rachel (3a) explained, "I'd say maybe like a family may have had one book and it was about one certain thing. They might have got the book like ages and ages ago and they pass it on". Danny (3a) also argued, "like maybe there's one big book that has everything in it? And stuff gets taken from that and put in other books?" The majority of the children spoke of the probable existence of one big book (or many big books) filled with the events of the past to explain how historical knowledge is acquired. Less common, though still present, was the idea that historical knowledge comes from authoritative experts such as the teacher or historians or as Róise (4a) asked "maybe the curriculum writers?" Similar to the views expressed on their definitions of history, the role of the individual in the construction of historical knowledge was noticeably absent in the answers given by children from 3a and 5a. In contrast, most children from 4a saw themselves as active participants in constructing their own interpretations.

Experiences of history: You have to judge if it's true or not

One of the strongest outcomes of the How People Learn project (Bransford, Brown & Cocking, 1999) was the finding that students' prior knowledge and assumptions played an influential role in how they made sense of the past. Subsequent research indicates that inherent tensions between the way the past is conceptualised outside of the classroom and the way it is practised within can create challenges for students (Wineburg, 2001; Lee & Shemilt, 2004). In light of this, it was necessary to interrogate the children's actual experiences of history to ascertain the influence these may have had on the children's epistemic beliefs about the subject. The history textbook was the dominant resource used by the children in 3a and 5a. The prescribed textbook contains content-focused history chapters presented in narrative form. Each chapter concludes with a series of higher and lower order questions that are designed to assess the children's factual retention. When discussing their experiences of doing history, almost every child in both of these cycles mentioned the textbook and the importance of recalling information. For example, Calvin (3a) described doing history as:

> We just, like, read the story and done loads of the questions. That was it. You can read myths and legends and it asks you questions all about it, like "where did he find the thing?" and "do you think this is real?

These binarised conceptions of real/not real or true/false were very evident in the children's discussions around history. Sofia (3a) referred to the importance of knowing what is real and what is not real on numerous occasions throughout her interview. Ivan (5a), who earlier in the interview displayed a sophisticated understanding of the nature of historical research, described his experiences of doing history as "you find evidence [in the textbook] and you have to judge if it's true or not." Whereas he saw the historian in an active role searching for evidence to construct an understanding of the past, his own role in the history classroom was centred on his experiences of reading the text and understanding the content from a substantive perspective. These binaries of "real" and "not real" had an impact on how Sofia (3a) viewed both the past itself and how she viewed the discipline of history. Sofia defined history as "myths which are not real" though she hedged this statement by adding "well some of the myths could be real like the Giant's Causeway." She saw the purpose of studying history as "to learn it so that you understand, like…oh, I don't know, what is real and what is not?"

Waldron's (2005) exploratory study on Irish children's perceptions of the Romans found that primary history textbooks had a discernible impact on children's perceptions of the past. While Waldron acknowledges that children do not obtain all their information about the past from the class textbook, her findings suggest that in textbook-led classrooms there is "a remarkable congruence between the themes and ideas expressed by the children and those found in the textbook used" (p. 283). Perhaps the same can be said of the style of questions used in the textbook? A survey of the class textbooks History Quest 3 and 4 (Fallon, 2012; Fallon, 2006) revealed a high number of myths and legends on the syllabus and many of the end of chapter questions revolved around asking "what parts of this myth/legend do you think are true/not true?" This seems to suggest that the structure and types of questioning in the class textbook may also play a part in forming children's conceptions of the subject which raises further questions over how much influence the activities contained within the textbooks have on children's epistemic beliefs about history. Absolutist thinking is characterised by a belief that assertions or claims are facts that can be either correct or incorrect and if, as Kuhn and Weinstock (2002) argue, epistemic beliefs progress from an objective view of knowing to a subjective/objective interpretation of knowledge claims, then end of chapter questions based around myths and legends being true or not true do little to shift Absolutist thinking. While teasing out the validity of truth claims in myths and legends is a worthwhile historical endeavour that allows students consider the values and social mores of a past civilisation, it is one that should be underpinned by discussions around the purpose of the activity rather than an as an add-on exercise at the end of the chapter. In fact, without such conversations, approaches like this may work towards perpetuating the idea that there is but one objective reality and that history is indeed simply a matter of discerning between what is true and what is not true without searching for credible justification for these choices.

The children from 4a had a very different experience of doing history in the classroom. In this class, the children used an enquiry approach to history where the focus was on the children working as historians as opposed to textbook instruction. The children in this class followed a five-phase historical enquiry approach that centred on: generating historical questions, identifying sources to answer these questions, developing historical thinking skills through the analyses of evidence and synthesis and communication of their findings and reflecting on their findings and connecting these to the wider community (Ní Cassaithe, 2020). Róise describes this approach in detail:

> We ask questions. We look at old evidence and photos. Like when we were doing the census, we looked at the names and streets and who lived there and what they did. Looking at old artefacts and going and looking at old gates and comparing to what we have today… to actually go out and do it like we did on Kesh Road when we looked at the old gates.

Notably absent from most of the interviews conducted with the children from 4a was any reference to the binaries of real and not real which lends some weight to the argument that the textbook played a part in shaping some children's conceptions of history in both 3a and 5a. In fact,

the use of textbooks was a rare occurrence in the history lessons the children in 4a experienced. These children also indicated a more critical approach to the contents of the history textbooks. Róise, for example, argued that "sometimes the history book is wrong" and when asked to explain, she connected this statement to her experiences of engaging with a variety of evidence: "Well, sometimes you show us different things that are not the same as the history books." In this statement, Róise showed a growing awareness that there is more than one story of the past. Such awareness is, in fact, a central aspect of historical thinking.

Conflicting historical accounts: One person is right, that is all

In order to determine the children's epistemic beliefs about the nature of historical knowledge, questions relating to the issue of conflicting accounts were asked and these provided a wide range of answers. When asked if it were possible to have two versions or accounts of the same historical event, if nobody was lying, most of the children indicated either an Absolutist or Multiplist stance. Some children insisted there could only be a single, objective claim: "there can only be one story, like of Jesus Christ and all" (Callum, 5a). Callum, like a small minority of students, displayed a strong Absolutist stance and was adamant that both in everyday life and in the study of history, there could be only one correct answer. A few children showed an emergent Multiplist stance and acknowledged that there could be multiple versions of an event but could not provide a reason why: "like if two different people say different things about the same thing? Well, one could be right and one could be wrong" (Daire, 4a). In some cases, there was an acknowledgement that there existed some form of naive criteria (e.g., numbers, mistakes) to assess sources. Róise (4a), like three of the other students, equated this to a numbers game and using the example of friends fighting in school, argued that the majority always wins. Here, the children were drawing on their own experiences of conflicts in everyday life and applying their own criteria for resolving these. "Yeah well if there's different stories about the same thing, you would see which one got the most amount of votes and then you go with that one" (Jenna, 4a).

Yet, while the majority of these children appreciated that differences in accounts in real life could be attributed to a variety of reasons, they were reluctant to apply similar criteria to the study of history. This reluctance was identified by phrases such as "there can't be any other histories, if there were, one would be fake" or "there's only one way that something can happen, only one real story of history" (Sammy, 3a). Even children who had exhibited more subjective leanings in earlier discussions tended to fall back on this perspective. Danka (5a) provided an example of two journalists reporting about an event from two different vantage points to justify the existence of multiple accounts of the same event but when asked to apply this to history, was adamant that this was impossible "because history has already happened". A small minority showed the beginnings of Evaluativist thinking and offered plausible reasons that included: differing perspectives, additional information or evidence available to one party and not to the other. Interestingly, almost all children drew on everyday examples rather than historical ones to illustrate their thinking.

Only one student provided a concrete historical example to explain her thinking in relation to conflicting accounts. "Like one time, I read something about Titanic, that 45 people survived, that wasn't true. First of all, I thought it was true and I went into class and I told everybody and then a few of my classmates said "no it was more" and my teacher said that 150 survived... It was fake". Rather than considering why the numbers of deaths were different, Katelyn (5a), reflecting an Absolutist stance, reduced the issue of deaths on Titanic to a matter of real or not real. For Katelyn, history was simply finding facts that were true and even more significantly, when faced with a conflict, she relied on a higher authority, the teacher, to decide which of these facts were correct.

History as fixed and uncontested: History is history, it doesn't change

Building on an Absolutist view of conflicting accounts was the conviction that there could be only one version of history, because, based on the children's observations of their own personal pasts, events can only happen one way. The majority of children indicated a belief that history is fixed and unchanging and expressed an everyday understanding that because there is only one way in which events can happen, there can be only one way in which they can be reported. Callum (5a) stated, "history is history, it doesn't change, so you just have what happened, you know?" Caoimhe (5a) displayed how deeply the view of history as fixed was entrenched in her thinking and argued (when talking about history) "if my brother robbed my sweets, he robbed them, you can't turn around and say he didn't cos he did". For Caoimhe, history and the past were both the same thing so if events in her immediate past could not have more than one version, then neither could history.

Discussion

The identification of a number of epistemic beliefs that act as "bottlenecks" to impede children's conceptual understanding of the discipline both corroborate the findings of previous studies that have looked at children's thinking in history (Waldron, 2003; Barton, 1997; Cooper, 1995; Lee & Shemilt, 2004; Lee & Ashby, 2000; VanSledright, 2002) and expand on them by situating this thinking within the emerging field of epistemic cognition. One of the most prominent bottlenecks was a belief that the past and history are the same. Conflating "the past" with "history" is a common preconception that is also found with second and third level students (Ashby, 2011; Chapman, 2011; Bain, 2005), primary student teachers (Miguel-Revilla, Carril-Merino & Sánchez-Agustí, 2020) and even other adult populations (VanSledright & Maggioni, 2016; Maggioni VanSledright & Alexander, 2009). Equating history with the past can influence children's understanding of history in a number of ways and can cause children to develop a series of assumptions based on their everyday encounters of a knowable past they have directly experienced (Chapman, 2011). When students view history as "everything from the past" they do so with everyday conjectures about that past such as "the past cannot change" and "things can only happen one way" and struggle to recognise that history is the study and interpretation of selected past events and those interpretations can and do change based on the reading of evidence. Underpinning this, from an epistemic perspective, is an Absolutist position in which multiple perspectives are non-existent as there can be only one attainable truth. From a disciplinary point of view, this epistemic belief translates into a view that history is an uncontested narrative. Facts are viewed as authorless bodies of information to be learned off by heart and historical narratives are seen as single, true accounts of a fixed past. History, for many of these children, was either "the past" or "what you get in the textbook" and the historian's job, whether the professional or the scholar, was to piece together these facts with little attention given to the interpretative nature of historical research. By equating history to the accumulation of historical knowledge, the role of evidence in the construction of historical knowledge claims was considered unnecessary or irrelevant.

Multiperspectivity, within the discipline of history, is built upon the premise that history is a discipline based on interpretation and that multiple perspectives of historical events and figures are not only possible but necessary (Low-Beer, 1997). It requires a personal understanding that people can have differing interpretations of an event or a source. From a historical point of view, multiperspectivity also allows children to explore a historical event from a variety of perspectives. The capacity to engage with multiple perspectives rests upon an acknowledgement of the "slippery nature" (Monte-Sano & Reisman, 2015) of historical knowledge itself. Historical narratives often contain multiple and conflicting perspectives and a key learning point children should take from the study of history is that these narratives can be constructed and interpreted in a variety of ways. In relation to history education, the epistemic idea that history is interpretative draws on an appreciation of the existence of multiple narratives or perspectives

about historic events (Wansink, Akkerman, Zuiker, & Wubbels, 2018) yet the ability to conceptualise the existence of these was rare in these interviews. Studies with second-level students have shown remarkable congruity with the responses found in the present study. Limon's (2002) Spanish study, for example, found that some students viewed history as one true and uncontestable narrative that is found in the textbook and discrepancies in accounts were the result of errors or lies. The results of the present research, particularly those concerning the existence of multiple accounts of the same historical event, indicate that though many children exhibited a growing personal awareness of the constructed nature of knowledge, they displayed a reluctance to apply this to the discipline of history. It has been proposed that Multiplist beliefs about subjective knowledge (e.g., personal preferences and aesthetic judgments), develop early; however, beliefs about objective disciplines, such as history, may not develop until later (Burr & Hofer, 2002; Kuhn & Weinstock, 2002). This proposition has been complemented by Theory of Mind (ToM) studies.

ToM relates to the ability to predict and explain the behaviour of ourselves and others and to understand that other people's thoughts and beliefs may be different from our own (Devine, 2016; Wellman, Fang & Peterson, 2011). Some researchers propose that key facets of epistemic cognition, such as competence in understanding theory-evidence coordination as well as the ability to connect the role of the human mind to knowing, have their roots in children's early ToM achievements (Iordanou, 2017). Kyriakopoulou and Vosniadou's (2020) study of multiple interpretations in science learning suggests that primary children's ability to reflect on the differences between their own beliefs and the beliefs of others in the social domain is a forerunner of an ability to comprehend that the same event in the physical world can receive more than one interpretation. This, as Kyriakopoulou and Vosniadou (2020) propose, may allow for such understanding to apply to other domains. Recognition of differing beliefs/interpretations in the ToM domain, therefore, may provide the foundation upon which a conceptual understanding of the nature of domain-specific knowledge is built. While the findings presented in this paper support the idea that children's ToM achievements in the social sphere can support their understanding of domain-specific concepts, the relationship between them is not linear. Studies that demonstrate the persistence of epistemic bottlenecks in the historical thinking of older students (see Chapman, 2011; Limon, 2002; Chapman & Goldsmith, 2015) suggest that, for most students, naive beliefs need to be explicitly challenged. Many of the children interviewed in this study displayed a Mulitplist stance in regard to subjective knowledge in that they recognised the existence of multiple interpretations of the same event but most reverted to a more Absolutist stance when applying this to the discipline of history. This has implications for the teaching of complex disciplinary concepts and suggests that such teaching should begin with challenging the everyday assumptions children have prior to introducing discipline-specific activities. Purposeful teaching for conceptual understanding therefore needs to make explicit those links between everyday thinking and disciplinary thinking.

Implications for teaching

The current Irish Primary History Curriculum, like many other history curricula, advocates an enquiry-based framework for school history that favours engaging the child in analysing sources and identifying how historical claims are constructed (National Council for Curriculum and Assessment (NCCA, 1999). Anecdotal evidence, however, suggests that teacher-led textbook instruction is still prevalent in Ireland (NCCA, 2008a, 2008b; Waldron et al., 2009) and elsewhere. The evidence from these interviews indicates that such an approach to history education can work to constrain children's understanding of the discipline, and of more concern, can contribute towards strengthening epistemic bottlenecks. These results suggest that the educational environment has a substantial bearing on the way students conceptualise the nature of history. From a pedagogical point of view, these initial conceptualisations are important as they act as the "foundation upon which the more formal understanding of the subject matter is built" (Donovan, Bransford & Pellegrino, 1999, p.15).

Though emergent and initially inchoate, the epistemic bottlenecks identified here show commonalities with second and third-level students' preconceptions about the nature of history. This indicates that the bottlenecks young children form in the early years about history can remain relatively stable throughout their education. The persistent nature of these often implicit bottlenecks suggests the need for specific interventions to contest them as they may not disappear of their own accord. Teachers need to be familiar with these bottlenecks and incorporate ways to challenge them into their pedagogical approach to learning. Challenging such beliefs is critical to the development of powerful ideas about history (Chapman & Goldsmith, 2015). Without explicit teaching on the work of historians, or engagement with historical thinking and historical enquiry, many students will continue to view history as the past and view it as factual, fixed and uncontested.

Further directions

Though embryonic, some of the children's comments showed that questions posed were unlocking new ways of thinking. This process of "epistemic disruption" (Ní Cassaithe, 2020) appeared to be set in motion through posing epistemic-framed questions that prompted children to reflect on abstract, philosophical issues they may have never considered before. The children's responses indicated that such reflections can initiate a disruption in their current conceptions. In a number of instances, once prompted to reflect on such issues, children such as Sofia and Danny began to move to more sophisticated levels of thinking. This suggests that questions promoting reflective dialogue and the provision of opportunities to engage with abstract topics can provide a context for the activation of particular forms of epistemic thinking. Further research will need to be conducted to verify if discussions alone can stimulate epistemic change.

Conclusion

Children enter the history classroom with preconceptions on the nature of history and historical knowledge. Some of these originate in their own everyday understandings of how the world works and others are reinforced by the educational practices with which they engage. These experiences can combine to create epistemic bottlenecks that constrain historical understanding. Introducing students to the epistemological features of history may help overcome these. Although further research is needed, the present results indicate that epistemic beliefs are important factors to take into consideration as children negotiate their way through the difficult conceptual terrain of understanding the nature of history. Rather than conceptualising epistemic bottlenecks as deficits, they can be put to constructive use, particularly if classroom teachers utilise them as catalysts or springboards to enable children to critically examine their own ingrained beliefs about historical knowledge and ways of knowing.

References

Ashby, R. (2011). Understanding historical evidence: Teaching and learning challenges. In I. Davies (Ed.), *Debates in history teaching* (pp. 144-154). London and New York: Routledge.

Bain, R. B. (2005). "They thought the world was flat?" Applying the principles of how people learn in teaching high school history. In M. S. B. Donovan & J. D. Bransford (Eds.), *How students learn: History in the classroom*. Washington DC: National Academies Press.

Barton, K. C. (1997). "I just kinda know": Elementary students' ideas about historical evidence. *Theory & Research in Social Education, 25*(4), 407-430. https://doi.org/10.1080/00933104.1997.10505821

Barton, K. C. (2008). Research on students' ideas about history. In L S. Levstik, & C. Tyson (Eds.), *Handbook of research in social studies education* (pp. 239-251). New York: Routledge.

Barton, K. C., & Levstik, L. S. (2004). *Teaching history for the common good*. Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410610508

Bransford, J., Brown, A. L., & Cocking, R. R. (Eds.). (1999). *How people learn: Brain, mind, experience, and school.* Washington, D.C.: The National Academies Press. https://doi.org/10.17226/9853

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in *Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London, UK: SAGE.

Braun, V., Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qual. Res. Sport Exerc. Health, 11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Burr, J. E., & Hofer, B. K. (2002). Personal epistemology and theory of mind: Deciphering young children's beliefs about knowledge and knowing. *New Ideas in Psychology, 20*(2-3), 199–224. https://doi.org/10.1016/S0732-118X(02)00010-7

Chapman, A. (2011). Understanding historical knowing: Evidence and accounts. In L. Perikleous & D. Shemilt (Eds.), *The future of the past: Why history education matters* (pp. 170–214). Nicosia: AHDR.

Chapman, A, & Goldsmith, E. (2015). "Dialogue between the source and the historian's view occurs": Mapping change in student thinking about historical accounts in expert and peer online discussion. In A. Chapman & A. Wilschut. (Eds.), *Joined-up history: New directions in history education research* (pp. 183-211). Charlotte, NC: Information Age Publishing.

Cooper, H. (1995). *History in the early years*. London: Routledge.

Counsell, C. (2018). Taking curriculum seriously. *Impact, 4,* 6-9. Available online: https://my.chartered.college/impact_article/taking-curriculum-seriously/

Devine R.T. (2016) Theory of Mind. In: Zeigler-Hill V., Shackelford T. (Eds) *Encyclopedia of Personality and Individual Differences*. Springer, Cham. https://doi.org/10.1007/978-3-319-28099-8_560-1

Donovan, S. M., Bransford, J. D., & Pellegrino, J. W. (1999). *How people learn: Bridging, research and practice*. Washington, DC.: National Academies Press. https://doi.org/10.17226/9457

Fallon, (2006). *History Quest 4*. Dublin: C.J. Fallon.

Fallon, (2012). *History Quest 3*. Dublin: C.J. Fallon.

Foster, S., Ashby, R., & Lee, P. (2008). *Usable Historical Pasts: A study of students' frameworks of the past.* (ESRC End of Award Report). Swindon: Economic and Social Research Council.

Hofer, B. K. (2016). Epistemic cognition as a psychological construct: Advancements and challenges. In J. A. Greene, W. Sandoval, & I. Bråten (Eds.), *Handbook of epistemic cognition.* London: Routledge.

Iordanou, K. (2017). From Theory of Mind to Epistemic Cognition. A Lifespan Perspective. *Frontline Learning Research, 4*(5), 106-119. https://doi.org/10.14786/flr.v4i5.252

Kuhn, D., Cheney, R., & Weinstock, M. (2000). The development of epistemological understanding. *Cognitive Development, 15*, 309–328. https://doi.org/10.1016/S0885-2014(00)00030-7

Kuhn, D., & Weinstock, M. (2002). What is epistemological thinking and why does it matter? In B. K. Hofer & P. R. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (p. 121–144). Lawrence Erlbaum Associates Publishers.

Kyriakopoulou, N., & Vosniadou, S. (2020). Theory of mind, personal epistemology, and science learning: Exploring common conceptual components. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.01140

Lee, P. J. (1991). Historical knowledge and the national curriculum. In R. Aldrich (Ed.), *History in the national curriculum* (pp. 39–65). London: Kogan Page.

Lee, P. J. (2005). Putting principles into practice: Understanding history. In M. S. B. Donovan & J. D. Bransford (Eds.), H*ow students learn: History in the classroom.* Washington DC: National Academies Press.

Lee, P. J., & Ashby, R. (2000). Progression in historical understanding among students ages 7-14. In P. N. Stearns, P. Seixas, & S. Wineburg (Eds.), *Knowing, teaching, and learning history: National and international perspectives* (pp. 199–222). New York: New York University Press.

Lee, P. J., & Shemilt, D. (2004). "I just wish we could go back in the past and find out what really happened": Progression in understanding about historical accounts. *Teaching History, 117*, 25–31. https://www.jstor.org/stable/43259120

Limón, M. (2002). Conceptual change in history. In M. Limon & L. Mason (Eds.), *Reconsidering conceptual change: Issues in theory and practice* (pp. 259–289). Kluwer Academic Publishers. https://doi.org/10.1007/0-306-47637-1_14

Low-Beer, A. (1997). *The Council of Europe and school history*. Strasbourg: The Council of Europe.

Lowenthal, D. (1998). *The heritage crusade and the spoils of history.* Cambridge: Cambridge University Press .

Maggioni, L., VanSledright, B. A., & Alexander, P. A. (2009). Walking on the borders: A measure of epistemic cognition in history. *The Journal of Experimental Education, 77*(3), 187–214. https://doi.org/10.3200/JEXE.77.3.187-214

Middendorf, J., & Pace, D. (2004). Decoding the disciplines: A model for helping students learn disciplinary ways of thinking. *New Directions for Teaching and Learning, 98,* 1–12. https://doi.org/10.1002/tl.142

Miguel-Revilla, D., Carril-Merino, T., & Sánchez-Agustí, M. (2020). An examination of epistemic beliefs about history in initial teacher training: a comparative analysis between primary and secondary education prospective teachers. *The Journal of Experimental Education*. https://doi.org/10.1080/00220973.2020.1718059

Monte-Sano, C., & Reisman, A. (2015). Studying historical understanding. In L. Corno & E. Anderman (Eds.), *Handbook of educational psychology*. Routledge Handbooks Online. https://doi.org/10.4324/9781315688244.ch21

Moschner, B., Anschuetz, A., Wernke, S., & Wagener, U. (2008). Measurement of epistemological beliefs and learning strategies of elementary school children. In M.S. Khine. (Ed.). Knowing, knowledge and beliefs: Epistemological studies across diverse cultures (pp. 113–133). Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-1-4020-6596-5_5

National Council for Curriculum and Assessment (NCCA). (1999). *Primary history curriculum*. Dublin: NCCA.

National Council for Curriculum and Assessment (NCCA). (2008a). P*rimary Curriculum Review, Phase 1: Final Report with Recommendations*. Dublin. National Council for Curriculum and Assessment.

National Council for Curriculum and Assessment (NCCA). (2008b). *Primary Curriculum Review, Phase 2: Final Report with Recommendations*. Dublin. National Council for Curriculum and Assessment.

Ní Cassaithe, C. (2020) *"Which is the truth? It's actually both of them": a design-based teaching experiment using learning trajectories to enhance Irish primary children's epistemic beliefs about history.* PhD thesis, Dublin City University.

Nokes, J. D. (2014). Elementary students' roles and epistemic stances during document-based history lessons. *Theory & Research in Social Education, 42*(3), 375–413. https://doi.org/10.1080/00933104.2014.937546

Stoel G., A. Logtenberg, B. Wansink, T. Huijgen, C. van Boxtel, and J. van Drie. (2017). Measuring epistemological beliefs in history education: An exploration of naïve and nuanced beliefs. *International Journal of Educational Research 83*, 120–134. https://doi.org/10.1016/j.ijer.2017.03.003

Perry, W. G. (1970). *Forms of intellectual and ethical development in the college years: A scheme.* New York: Holt, Rinehart and Winston.

VanSledright, B., & Maggioni, L. (2016). Epistemic cognition in history. In J. A. Greene, W. A. Sandoval, & I. Bråten (Eds.), *Handbook of epistemic cognition* (pp. 128–146). New York: Routledge. https://doi.org/10.4324/9781315795225

VanSledright, B. (2002). Fifth graders investigating history in the classroom: Results from a researcher-practitioner design experiment. *Elementary School, 102,* 131-160. https://doi.org/10.1086/499720

VanSledright, B. (2010). T*he challenge of rethinking history education: on practices, theories, and policy*. New York: Routledge.

VanSledright, B. (2014). *Assessing historical thinking and understanding: Innovative designs for new standards* (1st ed.). New York: Routledge.

Waldron, F. (2003). Irish primary children's perceptions of history. *Irish Educational Studies, 22*(2), 63–89. https://doi.org/10.1080/0332331030220209

Waldron, F. (2005). A nation's schoolbooks wield a great power: How the Romans are depicted in Irish history textbooks. In C. Morgan (Ed.), *Inter- and intracultural differences in European history textbooks* (pp. 257-290). Bern: Peter Lang.

Waldron, F., Pike, S., Greenwood, R., Murphy, C. M., O'Connor, G., Dolan, A., & Kerr, K. (2009). *Becoming a teacher: Primary student teachers as learners and teachers of history, geography and science*. Armagh, Northern Ireland: The Centre for Cross Border Studies.

Wansink, B., Akkerman, S., Zuiker, I., & Wubbels, T. (2018). Where does teaching multiperspectivity in history education begin and end? An analysis of the uses of temporality. *Theory & Research in Social Education, 46*(4), 495-527. https://doi.org/10.1080/00933104.2018.1480439

Wellman, H. M., Fang, F. and Peterson, C. C. (2011). Sequential progressions in a theory of mind scale: Longitudinal perspectives. *Child Development, 82*, 780–792. https://doi.org/10.1111/j.1467-8624.2011.01583.x

Wineburg, S. (2001). *Historical thinking and other unnatural acts: Charting the future of teaching the past*. Philadelphia, PA: Temple University Press.

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Appendix A: Semi Structured Interview Questions

(bulleted questions were used if the child had difficulties with the initial question)

1. What is history?
   - If an alien was to land here, how would you explain to him or her what history is?

2. Where does historical knowledge come from?
   - How do people in the present find out about how things were in the past?
   - How do we know about what happened in the past?

3. Do you think we know everything there is to know about the past?

4. What does a historian do?
   - If you were to watch a historian at work what might you see them doing?

5. If two people witnessed the same event, would it be possible for them to give different accounts of what happened?
   - Why?
   - Why not?
   - If yes, how would you know which one to believe?

6. What about a historical event?
   - Could there be different accounts of what happened?
   - If yes, how would you know which one to believe?

7. What are the best ways to learn history?

8. During a history lesson, what do you typically do?

9. Are you good at history?
   - Why do you think this?
   - Why do you not think this?

10. How would you describe someone who is good at history?

11. Do you like school history? Why/Why not?

12. Have you ever learned about history outside of school?

13. Why do you think we study history in school?
    - Do you think is it important to study history in school?

Those are all the questions I have for you. Do you have any questions for me?

Appendix B: Excerpt from Sofia's interview (3a)

Interviewer: Sofia can you explain to me, what is history?
Sofia: History is everything that happened in the past. Even this I'm saying now is history. History is… emmm… myths that are not real and are from the past like Tir na nÓg - you know when you weren't allowed to put your foot back on the ground in Ireland? You know your man who was gone for a few years and then he came back and he put his foot on the ground and he became old? That's a myth.

Interviewer: **So history is myths that are not real?**
Sofia: Well some of the myths could be real like the Giant's Causeway, well it is real - the Giant's Causeway.

Interviewer: **Right, so how do we know what is real in history?**
Sofia: Some of it could be true and some of it couldn't be true but you'd never know because you've never seen what actually happened because you weren't born when it happened. You only know if you are there.

Interviewer: **So can you only really know history if you were there when it happened?**
Sofia: Well you could know by books as well.

Interviewer: **And were the people who wrote the books there then?**
Sofia: (shrugs shoulders) Maybe? I don't know.

Interviewer: **So where do you think the people who write the books get their information from?**
Sofia: They get it from the past

Interviewer: **So they ring up the past and say tell me what was happening?**
Sofia: (Laughs) Hang on, let me think …. emmm … no, it probably comes from the past when it was written first and they probably made the history book and put it in there. People that are from the past probably writ it and then people who write the new books get it from that. So somebody who was there writes it down but they could they could still be alive you never know, and then they would write the book themselves or they could tell the story to their family.

Interviewer: **What if we wanted to find out something from the ancient past, like really far back?**
Sofia: You can go to a castle or some sort, and you might meet one, like, a Viking, or if there's no Vikings left alive you can find someone who was related to them and related to them and related to them and then the person that still alive now, they were his cousin sort of and they passed the story down. It's … it's making sense to me now that I am thinking about it, so somebody who was there writes it down but they could they could still be alive you never know, and then they would write the book themselves or they could tell the story to their family.

Interviewer: **Ok, it's making sense to you now is it? So how else can we find out about things in the past?**
Sofia: Emmm … We could meet a historian? We could go to the Viking Castle and get all the broken things like in the 1916 Rising. You could get the photographs like of Joseph Plunkett then you'd know what was real. Or old people who lived back then, talk to them, they'd tell this us what happened.

Interviewer: **Ok, so let's say we have two of those people and they witnessed the same event would it be possible for them to give different versions of what happened?**
Sofia: Course, but one would be lying

Interviewer: **Let's say no one was lying. Could they still have different versions?**
Sofia: Emmmm, yeah. I think so.

Interviewer: **Can you explain how?**
Sofia: It could be different but one of them would be lying. Like if they didn't know for sure a historian could just make up what I think happened. One historian could tell lies and one could one could tell the real truth, But there are master historians who know everything so maybe they judge. Like if ***you*** wrote a book about the Romans, and the master historian did as well, he could say "actually know more about them because I am a master historian."

Interviewer: **So if a historian can tell lies about the past how do we know who is telling the truth?**
Sofia: That's it, you don't know, Maybe you might know from your own knowledge. Like if one historian picked up something covered in blood it could be fake blood or it could be red sauce or it could be real blood. Like if they were investigating who killed somebody. Real blood is fresh blood and ketchup is just horrible.