Historians and Conceptual Change in History Itself: The Domain as a Unit of Analysis

Article for Special Issue “Conceptual Change for Work”
in *International Journal of Educational Research*

Mikko Kainulainen[1], Marjaana Puurtinen[1, 2], and Clark A. Chinn[3]

[1] Department of Teacher Education, University of Turku, Finland
[2] Department of Psychology and Speech Language Pathology, University of Turku, Finland
[3] Graduate School of Education, Rutgers University, USA

Keywords: conceptual change; expertise; historiography; epistemic cognition; history education

Declarations of interest: None

Corresponding Author:

Mikko Kainulainen
Department of Teacher Eduation
University of Turku, 20014, Finland
Email: mikain@utu.fi
Phone: +358 29 450 3605

This is an electronic reprint of the original article. This reprint may differ from the original in pagination and typographic detail. Please cite the original version:
Mikko Kainulainen, Marjaana Puurtinen and Clark A. Chinn 2019. Historians and Conceptual Change in History Itself: The Domain as a Unit of Analysis. Article for Special Issue “Conceptual Change for Work” in *International Journal of Educational Research* 245-256.
DOI: https://doi.org/10.1016/j.ijer.2019.09.001

This version is licensed under a CC-BY-NC-ND user license, https://creativecommons.org/licenses/by-nc-nd/4.0/

Historians and Conceptual Change in History Itself: The Domain as a Unit of Analysis

Abstract

Along their path towards expertise, historians undergo conceptual changes. The purpose of this theoretical paper is to argue that conceptual change in history involves, first, a fundamental shift from an understanding of history as *the past* to an understanding of history as *human production*. And second, expert conceptual change involves understanding multiple approaches to the production of history. Each approach is associated with constraints on historical concepts and meta-concepts. We outline differences and similarities between these broad approaches through a framework that merges epistemic cognition and historical theory. Currently, there exists no singular conception of history to set as an unproblematic aim of epistemic education, and conceptual change must therefore embrace the aim of understanding of multiple conceptions.

Keywords

conceptual change; history education; historiography; epistemic cognition; expertise

1. Introduction

Learning history involves conceptual changes—that is, major conceptual shifts in how students understand history and the concepts used in history. Accordingly, professional development of historians requires enabling students make these conceptual shifts on the path to expertise.

Traditionally, research on conceptual change has addressed learning and development of conceptual knowledge about various kinds of content in domains such as physics, mathematics, and history. Our approach diverges from this trend in two ways. First, instead of targeting changes in knowledge about content (e.g. history-related topics such as immigration movements or the Russian Revolution), we focus on changes in knowledge and knowing itself. This kind of focus has been termed as *conceptual change in epistemic practices* (Chinn & Samarapungavan, 2009) or *epistemic conceptual change* (Sinatra & Chinn, 2012). Second, instead of targeting a substantive content of a domain (e.g., ‘force’ in physics, ‘fraction’ in mathematics, or ‘nation’ in history), we address conceptual change at the level of the domain itself. We argue that there is no single expert historical practice, and therefore, optimally, conceptual change in history requires learners to grasp different historical practices. Here, we build on research in the field suggesting that there is no single process or mechanism of conceptual change but instead, conceptual change occurs through multiple routes (Chinn & Samarapungavan, 2009; Vosniadou, 2013).

In this theoretical paper, we discuss some prior views about concepts and conceptual change in history and expand them by presenting a new analysis of conceptual change in historical practices in terms of the AIR Model of epistemic cognition. We begin by outlining a level of analysis for concepts at the *domain level*, which we describe more closely through two different frameworks. The first framework targets the ontological characteristics and differences of the concept of *history*, understood as either the past itself or a practice of some sort. The second framework operates within this latter ontic category, and goes more into detail about the epistemological characteristics and differences of expert practices of doing history. Changes within both frameworks are considered through different theories of conceptual change. Finally, we consider the connection between the domain level and the *content level*, i.e. the level of concepts, knowledge, and their frameworks that compose the content of history education.

2. The domain level of concepts: history itself

Historians studying the concepts *past* and *history* describe how these concepts also have their own trajectories of historical development over the centuries (Koselleck, 1997; Schiffman, 2011). Carretero, Castorina, and Levinas (2013)—building on the work of Reinhart Koselleck—emphasized changes in the concept of history itself, highlighting that the "complex relationship between history understood as a *series of facts belonging to the past* and history considered as *a study of the past* is a historical process in itself" (p. 271, italics in original). Contemporary ways of conceptualizing and practicing history have formed through considerable changes within recent centuries and even decades (e.g., Carr, 1961; Donnelly & Norton, 2011; Iggers, Wang, & Mukherjee, 2017; Marwick, 1989; Maza, 2017; Torstendahl, 2015). During this time, history has been heavily influenced by institutionalization, professionalization, philosophy, science, and literature. This has changed both ontological assumptions about the nature of history as well as epistemological assumptions about who can do history, how it can be done, and whom or what it can be about.

Leinhardt and Ravi (2013) proposed that conceptual change in history "is somewhat different than in other domains because it is the field itself that has undergone a conceptual shift." (p. 265). Even more, history—as a domain—is also currently home to various ways of conceptualizing itself and practicing its discipline (e.g., Booth, 2006; Carrard, 2017; Coraiola, Foster, & Suddaby, 2015; Donnelly & Norton, 2011; Jenkins & Munslow, 2004; Rosenstone, 2013). Therefore, a higher conceptual level of the domain itself might be relevant for research on learning and development of expertise in history.

One way to approach this is to take *history* as a signifier of a concept that stands for signifieds such as 'the past' or 'a temporal process' (White, 2014). In the current paper, we refer to temporally based concepts of history using the term *history-as-past*. In contrast to this is a second broad category, under which fall all the conceptions of history as some kind of human pursuit—such as research—about parts of the past. This latter category is thus about history as something that is *done* (Donnelly & Norton, 2011), which we refer to as *history-as-human-production*.

First, concepts of history-as-past indicate either an exact or a near equivalence between history and past (Virta, 2001, 2011; Yilmaz, 2008). In these concepts, history represents the time, events, subjects, and objects before "now" or some selected parts of that time. In these concepts, history can also be considered as something "known", i.e. an object of knowing. Here, however, history itself is not an act of knowing or coming to know, nor are these acts considered to really *do* anything to history. Instead, knowing history in these concepts resembles *being* aware or conscious of history. From the perspectives of historical research, theory, and philosophy of history, these concepts are considered rather naïve (e.g., Carr, 1961; Jenkins, 1991; Marwick, 1989).

Second, conceptions of history-as-human-production[1] indicate a distinction between history and the past. In these conceptions, history involves some activity, and what it comes to represent is something of, about, or related to the past, mediated by human action. In these conceptions, history is thus a human production either in the sense of a process or a product, and that is the only way history comes to be at all. Knowing and/or (re)presenting is relevant in these concepts to varying degrees. From the perspectives of historical research, theory, and philosophy of history, these concepts are considered as more or less sophisticated or naïve, depending on the stance (e.g., Carr, 1961; Jenkins, 1991; Marwick, 1989).

The concept of history-as-human-production is widely shared among domain professionals. Whether metaphorized through craft (Bloch, 1953), mapping (Gaddis, 2002), forensics, or painting (Munslow, 2006a), history is something that you *do* and that produces some outcomes such as a historical narrative. However, the data, theories, perspectives, and methods possible and available for historians change continuously (Maza, 2017), and indeed, there is “no golden past of historical production to cling to” (Pinto & Taithe, 2015, p. 4). Experts vary in their ideas about the kinds of practices involved and the nature of the output, and the question of “what is history?” is debated among both history theorists and philosophers (Jenkins & Munslow, 2004; Paul, 2015; VanSledright & Limón, 2006).

A number of studies have investigated students’, student teachers’, and teachers’ beliefs, concepts, knowledge, and practices of history and history teaching (e.g., Díaz, Middendorf, Pace, & Shopkow, 2008; Maggioni, VanSledright, & Alexander, 2009; McCrum, 2013; Nye et al., 2011; Stoel, Van Drie, & Van Boxtel, 2017; VanSledright & Reddy, 2014; Wansink, Akkerman, & Wubbels, 2016; for reviews, see, Barton, 2008; Halldén, 1986), and some broadly distinguish between history-as-past and history-as-human-production. In the USA, Yilmaz (2008) interviewed social studies teachers’ about their conceptions of history and found two overarching categories of concepts: (1) history as the past and (2) history as an interpretation of the past. The former included subcategories that overlooked the subjective component of history or the processes related to its creation. These teachers considered history as equivalent to or directly connected to the past. The latter included subcategories that conceptualized history as a more complex process characterized by subjective and disciplinary components, differentiation of history from the past, and consideration of history as both a process and product of human actors.

Virta (2001) found that it was quite common for these Finnish teacher education students to conceptualize history in terms of one of the following categories: “history as the past (time dimension, continuity)”, “history as something that has happened, things, events, life”, “history as a line of development, related to the present”, or “past events, things, persons”. It was much rarer to conceptualize history as a “description or knowledge of the past” or as “research”. In a later study with prospective history teachers, Virta (2011) also targeted the changes in such conceptualizations, finding that while entering the university to study history, many of the participants had to considerably rethink their concept of history in order to incorporate such aspects as criticality, research, and interpretation.

---

[1] Of course, history, like other arts and sciences (see, e.g. Latour, 1999), is not *only* a human production but instead, tools, environments and other non-human entities also have a role in it. Yet, we can consider history as productive activity that is crucially led, organized, and orchestrated by humans.

3. Conceptual change towards history-as-human-production in light of prior theories

In above prior studies, students developed a conception of history as interpreting, investigating, and writing.[2] Thus, one suggested major step along the path of expertise development is a transition from an understanding of history-as-past to an understanding of history-as-human-production. This change is accompanied by a shift in agency from being merely a reader or consumer of history to becoming its writer or producer (cf. Nye et al., 2011). However, most of the above studies about teachers' and student teachers' conceptions of history did not directly address the development of such concepts. We consider that moving between some of the described concepts can be seen as *conceptual change*, and involving considerable restructuring of previous concepts or ideas.

One way of theorizing such conceptual change is through *categorical shifts* (1997, 2013; Chi, Slotta, & De Leeuw, 1994), which occur through shifting or reassigning concepts from one category to another. Chi (2013; Chi et al., 1994) argued that difficult forms of conceptual change involve shifts between conceptual hierarchies (e.g., from *entities* to *processes*). In many ways, the change from history-as-past to history-as-human-production resembles one that requires a categorical shift from a temporal concept to process concept. Munslow (2010) also explained such difficulty through *ontological dissonance*, implying that:

> the nature of the history (text, film, TV, drama, blog …) cannot be aligned in terms of what it is (its ontology) with the past to which it refers. The central idea that supports the claim to or of ontological dissonance is that 'the past' belongs to an entirely different philosophical category to the forms in which it can be re-presented as 'history' which requires the belief that it is knowable … (p. 277)

Thus, we might consider the differentiation of these two conceptions of history as contributing to an *ontological framework* at the domain level of concepts. However, this does not mean that change is necessarily or thoroughly explained as an ontological shift. Many initial conceptions do not disappear when learning new and more advanced ones but instead remain operative in a suppressed manner (e.g., Shtulman & Valcarcel, 2012). With the concept *history*, this might be seen in everyday situations when even expert historians use the concept in ways that come close or equivalent to the conception of history-as-past.[3] Therefore, instead of an absolute categorical shift in learners' semantic web of word meanings, another possibility is to see the move from history-as-past to history-as-human-production as differentiation of concepts to be used in varying contexts (Caravita & Halldén, 1994; Chinn & Samarapungavan, 2009; Mortimer, 1995). In such a scenario, the more holistic previous concepts are not considered totally wrong but only partially so: experts may still use them in certain types of discourse but can also differentiate and flexibly transition between differentiated concepts—if needed (e.g., Chi, 1997).

Acknowledging that the significant new aspect in the novel concept is human agency in producing history as an epistemic product, another plausible mechanism might be the provided by the *epistemological resources* view (Hammer & Elby, 2002). This view, based on diSessa's (1993) knowledge-in-pieces theory, explains and promotes learning by locating the useful “primitives” or resources for constructing the more novel concepts or beliefs. In our case, *history* is surely not the first context where production and processes of constructing (knowledge) objects arises, and therefore learners might draw on these resources in developing an understanding of history-as-human-production.

---

[2] In another context of historical culture, history-as-human-production could also refer to something like enactment or performance. However, in this article we will stay mostly within the context of history education and academic historiography.

[3] Also, in the older and speculative forms of philosophy of history, the concept *history* is used signify progress(ion) in time, and "the ontological entity 'history' is assumed, not interrogated." (Partner, 2013, p. 2).

Finally, in the context of science education, Sinatra and Chinn (2012) proposed that conceptual change is often needed at an epistemic level as well as a conceptual level, because “students come to the study of science with not only misconceptions about science content but also misconceptions about the nature of knowledge, thinking, and reasoning that must be overcome in the course of instruction” (p. 276). In this regard, there is a sense in which the primary level category change from history-as-past to history-as-human-production could be seen as such *epistemic conceptual change*. However, considering the detail that knowing or other epistemic components do not in any significant way figure in concepts of history-as-past, change from history-as-past to history-as-human-production is not so much a change *in* an epistemic level, but more importantly, a change *to* an epistemic level. In order to look at changes *in* an epistemic level, we next propose a further distinction of three different ways of conceptualizing the practice of history, i.e., three conceptions of history-as-human-production.

4. The epistemological framework and historians’ practices

We take the aforementioned studies by Yilmaz (2008) and Virta (2001; 2011) to suggest overall that both professionals and non-professionals express different kinds of conceptualizations of *history*, such as ones related to past time and events or research practices. Some of these concepts are manifestly epistemic and/or activity-based while others are not. Thus, history—as a domain—is currently home to various ways of conceptualizing itself and practicing its discipline (e.g., Booth, 2006; Carrard, 2017; Coraiola et al., 2015; Donnelly & Norton, 2011; Jenkins & Munslow, 2004; Rosenstone, 2013). We propose three positions formulated by Munslow (2006a, 2015; Jenkins & Munslow, 2004) as particularly useful for our purposes. Munslow (2003, 2015) introduces these positions—reconstructionism, constructionism, and deconstructionism—as idealized orientations about the nature of history, which can exist either as epistemological positions, as stances of historians or as genre choices in historical writing.[4] We propose that these three can also be considered as *practices*, since they bring together sets of goals, values, criteria, and methods in somewhat distinct ways. Reed’s (2011) characterization of *epistemic modes* is also helpful in understanding the nature of reconstructionism, constructionism, and deconstructionism:

> Epistemic modes dictate the *conceptual* method by which theory is brought into contact with evidence, structure the expectations about what such contact can accomplish, and provide more or less well-formed criteria of validity that are used to evaluate the knowledge that is thereby produced (p. 7, italics in original)

Our epistemological framework addresses the diversity in professional practices of doing history. It builds on the ontological framework and extends it. Two extensions are key. First, like the ontological framework, we posit that learners experience a major conceptual shift moving away from understanding history as past. But rather than simply viewing the new understanding as a conception of history as *a* (single) practice of knowing and doing history, we emphasize that sophisticated historical understanding requires either *choosing from among different historical practices* or *a flexibility among multiple historical practices*—at least three broad ways of knowing and doing history (based on distinction by Munslow, 2006a). We propose the latter option as preferable because contemporary historical practice in fact involves these multiple practices, and analyze historical practices in light of the AIR model of epistemic cognition developed by Chinn, Rinehart, and Buckland (2014).

---

[4] We present the three positions here not as a conclusive set of ways to conceptualize history as practice, but as one approach to understand the different contemporary practices of history. Later researchers have also suggested some modifications to Munslow’s positions (see, Vörös, 2017; Zeleňák, 2011).

The AIR Model of epistemic cognition (Chinn et al., 2014; Chinn & Rinehart, 2016) analyzes epistemic practices in terms of three components: Aims and value, Ideals, and Reliable processes. Aims are the goals of the epistemic practice that individuals and communities hold valuable, such as the aim of developing an interpretive narrative of past events. Unlike traditional epistemology, which considers truth or (justified) true beliefs as either the only or the main aim of inquiry, we rely on a pluralistic approach to epistemic aims.[5] In epistemic endeavors, epistemic aims can be—and often are—mixed with non-epistemic aims, such as the aims of changing public policy or achieving fame as a historian. Ideals are the criteria or standards used evaluate the achievement of these aims or the products in which they are embodied. A typical ideal for evaluating a work of history could be the strength of its argument or the coherence of its narrative. Ideals can be more general or correspond to certain specific aims. Reliable processes are individual or collective activities that are likely to produce desired epistemic outcomes. For example, in the case of history, a "reliable process for producing a well-justified historical narrative is one that is more likely to produce a well-justified narrative … than a bad one" (Chinn & Rinehart, 2016, p. 376). In the case of interpreting singular documents or comparing them, heuristics like *sourcing*, *corroboration*, and *contextualization* (Wineburg, 1991) are often considered as reliable processes. Overall, underlying the components of the AIR Model is an understanding of epistemic cognition as a social, distributed, and situated practice (Chinn & Rinehart, 2016).

In what follows, we examine the three practices of history—reconstructionism, constructionism and deconstructionism—in light of the AIR model. We provide some examples of these practices but more can be found elsewhere (Booth, 2006; Coraiola et al., 2015; Jenkins & Munslow, 2004; McCrum, 2013).

4.1. Reconstructionism

First, the reconstructionist position implies belief in empiricism and in the human capacity to discover the most likely meaning of some past event, action, or human intention through close examination of the sources. This examination is considered a specialized craft in which historians make sure to use detailed techniques, such as source verification and comparison (Munslow, 2006a). Applying these processes involves rationality, and it ought to be done in an independent and detached manner. However, it is not the mere use of such techniques that implies a reconstructionist position, but the assumption that they allow an avenue for discovering real stories in sources.

---

[5] For discussion about pluralism in epistemology, see, Grajner & Schmechtig (2016) and Coliva & Pedersen (2017).

Historical works within a reconstructionist position **aim** for comprehensive accounts through chronologically arranged texts. Since this position expects historians to be detached and impartial, they might consider their aims as strictly epistemic, such as knowledge, truthful interpretation, and explanation. Likewise, some of the core epistemic **ideals** of reconstructionists relate to objectivity, independence, the structure of narratives, unity in correspondence with sources, impartiality, coherence, and rationality (see, Munslow, 2003, 2006a).

Reconstructionists consider the **reliable processes** of their field to consist of a well-selected array of craftsman-like procedures that altogether constitute *the* method of doing history. These include processes like critically evaluating the origins of sources, corroborating sources against each other, and contextualizing details to other relevant historical knowledge. During these processes, historians are expected to refrain from using theories or models to make sense of the documents to keep an emotional distance between themselves and the past. Yet, historians might then claim to write up this work as *discovered* truthful interpretation in an unproblematic representational way (Munslow, 2003). Elton (1991, in Munslow 2006a; see also, Hughes-Warrington, 2008)—a key thinker in the reconstructionist tradition—considered that there is truth to be discovered and that, in aiming to achieve this goal, the most important part of historians work is the rational and impartial investigation of documents. To Elton, this act did not represent a theory of knowledge, but instead it *is* history "as it should be properly understood" (Munslow, 2006a, p. 22). Furthermore, in considering the practice of history, Elton dismissed other theories of knowledge as ideology "imposed upon the reconstruction of the past" (Elton, in Munslow, 2006a, p. 22). McCrum (2013) recognized reconstructionist conceptions among a few of the history teachers she interviewed, with one of them stating that "the historian was akin to travelling back in time and being able to see what happened, how they did things and what it would have been like" (p. 77).

4.2. Constructionism

Similarly to the previous position, the constructionist position centers on empiricism, i.e., knowledge acquisition through senses about a 'given' past that makes itself knowable in evidence and sources (Munslow, 2006a, 2006b). However, unlike in reconstructionism, in constructionism historians adopt a middle position of empiricism where they "observe but … also mentally process information deploying a priori … knowledge and categories of analysis" (Munslow, 2006b, p. 89). Historians might also be after the most likely meaning of the past but instead of mere scrutiny of the sources, they opt for a self-conscious style that moves "beyond the description of the event as 'found' in the sources to the 'discovery' of the underlying structural character of historical change" (Munslow, 2003, p. 5). This move is made through the use of (mostly social) theories (e.g., Marxism, feminism, post-colonialism, post-humanism) and concepts (e.g., class, gender, race, imperialism) through a self-reflexive empirical methodology. Such a move then allows historians to *see* 'real patterns' that exist behind the surface level (Munslow, 2003). Historians deploy concepts and arguments to make generalizations but do not consider them absolute. According to Jenkins and Munslow (2004), constructionists "share with reconstructionists the desire to maintain the distance between themselves and the past. But, unlike reconstructionists, they do this by viewing the concepts and tools of analysis as serving the evidence rather than as impositions upon it" (p. 11). Notwithstanding the distance between the historian and the past, the constructionist position considers history to form through a dialogue between the historian and the past. One of the history teachers McCrum (2013) interviewed, representing a constructionist position, took history as "something constructed by historians who can use the evidence left over from the past but who have to weave a story from it and put their own perspectives onto it" (p. 77).

Many of the epistemic aims, ideals, and reliable processes of reconstructionism are also included in constructionism. Constructionists also **aim** at discovering and explaining inherent meanings of past events or phenomena and provide truthful interpretations. However, their view of the connection of their work with truth is a more distant one than that of reconstructionists. In addition to this, they are more interested in patterns, and aim at finding support or constraints for theories (Munslow, 2015). As for **ideals**, constructionists—like reconstructionists—value accuracy, comprehensiveness, and coherence. However, they may either abandon the ideal of objectivity, or conceptualize it in another way that is more in line with the interdisciplinary use of perspectives, theories, and concepts.

Finally, the **reliable processes** of constructionists also include use of the classic methods of critical source analysis. In addition, they sometimes use "high end statistical forms of an analysis that demand manipulating large bodies of data to 'discover the trends'" (Munslow, 2015, p. 159). Among constructionists, one can also find a distance between historians and the past. However, emotional detachment is less central to their processes, and their processes involve heavy use of theories, concepts, models, and other tools of analysis to structure interpretations of the historical data. These theoretical tools are considered essential to reveal an underlying meaning of the evidence rather than being impositions upon it (Jenkins & Munslow, 2004).

4.3. Deconstructionism

Finally, the deconstructionist position departs further away from the search for the most likely meaning of the past. The name of this position does not refer to deconstruction of texts in the Derridean sense, but instead, to deconstructing or challenging many of the assumptions of the two other positions (Munslow, 2006a, 2015). Whereas historians assuming or choosing the previous positions might discover meaning and report on it, the deconstructionist position emphasizes creation of meaning through representation (Munslow, 2006a). Instead of a dialogue between the past and the historian, deconstructionists propose to focus on a conversation between an author and an audience, implicating an emphasis on the social consequences of doing history. They also question the exclusive status of empirical and analytical forms, and promote engagement in experimental ways of "historying" (Aurell, 2015; Munslow, 2015). This can be done by questioning the priority of content over form in historical expression and reversing this priority in order to explore the consequences of new forms of representation.

An example of this is *In 1926: Living at the Edge of Time* by Gumbrecht (1997), who himself considers it "an essay on historical simultaneity". The book is a collection of fifty-one "fragments that illuminate the facets of the year 1926..., a year in which nothing significant seems to have happened" (Jenkins & Munslow, 2004, p. 171). These fragments are around eight page entries about such phenomena as gramophones, six-day races, employees, ocean liners, polarities, male vs. female, and Americans in Paris. In the beginning of the book Gumbrecht provides a user's manual, in which he advises the reader *not* to "start from the beginning", but instead from any of the fifty-one entries because the "book has no beginning in the sense that narratives or arguments have beginnings" (Gumbrecht, 1997, p. ix). Jenkins and Munslow (2004) find that the snippets in *1926* form momentary kaleidoscopic patterns and then disperse, making it "hard for the reader to know what to do with them. The knowledge that Gumbrecht presents is, literally, ‘useless’”, and conclude that this pointlessness of 1926 “is, of course, the point.” (p. 171).

Deconstructionists acknowledge that the past once existed but deny any gold standards for a specific kind of knowledge about it. Therefore, empiricism is not a primary engagement in the same way in this position as it is in the two previous ones. Nevertheless, this does not necessarily imply ontological anti-realism. In fact, all three positions share a denial of anti-realism about the (once) actuality of the past or the existence of its traces (Jenkins & Munslow, 2004).

The **aims** of deconstructionists are manifestly a mixture of epistemic and non-epistemic ones. While they share with the previous positions aims such as knowledge and interpretation, deconstructionists regard them as relative in many ways. Importantly, epistemic aims might not be the main goal. For example, Pihlainen (2017)—representing a position very close or equivalent to deconstructionism—is

> not *primarily* concerned with epistemology but with ethics, politics and consequence (the epistemological problematic faced is too obvious to lead very far alone). To make the constructedness of all sense and meaning visible is first and foremost an ethical-political issue. Once we stop expecting meanings to somehow magically appear from facts, the ideological nature of practices of figuration becomes *foregrounded*. (p. xxii, italics added).

Relying strongly on literary studies and critical theory, deconstructionist **ideals** are sometimes akin to those of scholars of literature, who might evaluate texts against criteria of *narrative ethics* in order to determine if stories expand the readers capacity for perspective-awareness, sense of the possible, or personal and cultural self-understanding (Meretoja, 2018). Like the previous positions, the deconstructionist position may also value coherence and sensibility of historians’ narrative products. Other key epistemic ideals against which historical works may be evaluated include questions such as:

> How can we readily differentiate truth-effect plausibility from fact? How may we disentangle social theory arguments from low-level descriptions of events? How can we unpick ideologically inspired gaps and silences or unravel the collapsed signifier–referent? … As to what constitutes good history, then, it is that which is self-reflexive enough to acknowledge its limits (Munslow, 2006a, p. 74).

Importantly, as historians’ aims are to a degree non-epistemic, also political, ethical, and aesthetic ideals may be applied to historians’ products and their consequences in the society.

The **reliable processes** of historians adopting the deconstructionist position include many of the processes of the two other positions, because they take an open-minded approach to many methodological tools. In addition, their writing processes are also more likely to consider the anticipated social impact of their writing. Also, their processes for constructing high level histories—in narrative form or not—from the low level inferences based on evidence are very different from the other two approaches. As the case of Gumbrecht above shows, deconstructionists might choose to experiment with literary forms. Historians might thus mix elements from different genres (e.g., scientific reports, screenplays, poetry), explore the subjectivity of the historian as an author, or arrange textual performances that “mix the past and the present, subject and object, the speaker and the spoken", diverting "the single authorial voice – the 'true story' – in favour of an interminable multiplicity" (Jenkins & Munslow, 2004, p. 117). Ermarth (2011) discusses fifteen "new methodological options" for historians. These might also be read as possibilities of reliable processes for the deconstructionist conception of history. Among them, one may find heuristics such as "[t]he development of themes based on iterative details and patterning rather than on plot-and-character", "[e]mphasis on *rhythm* or *rhyme* or *the phrase*, rather than on causal and motivational structure", "[a] narrative line constituted by a *process of digression and return*", and "[a]llowance for a personal voice and expression of purpose" (p. 111-112, italics in original). Runia (Runia & Tamm, 2019) discusses using "form as a heuristic and epistemological tool", stating that "form has brought me to places I wouldn't have visited when I had just 'written things down'" (p.5). Moreover, Runia's description of producing one of his publications is another example of the creative use of form:

> In Het Srebrenicasyndroom ('The Syndrome of Srebrenica'), for example, I dramatize my own role as a historian .... The book is not a result (that is, a description of what I found out) but a kind of detective-story in which I gradually discover the astonishing truth of how the Dutch Srebrenica researchers re-enacted their subject. Rather naively, I have always cherished the illusion that a hybrid work like Het Srebrenicasyndroom would be accepted as a specimen of bona fide of historical (or philosophical, or whatever) research. It was not." (p. 4)

5. Conceptual change in history in light of the epistemological framework

Above we described how currently in the fields of historiography, historical theory, and philosophy of history, the concept of history is put into practice in different ways. Thus, choosing one position over others based on, for example expert opinion, is difficult. From a conceptual change perspective, we recognize several possibilities also *within* the epistemological framework. First, one can learn new aims, ideals, and reliable processes from another position, thus contributing either to regular integration of new knowledge into the previous one or to a minor revision of some parts of the concept. Second, one can undergo conceptual change with *history* from one epistemological position to another, for example from a constructionist to a deconstructionist one. This would be considered a considerable revision of one's previous concept. However, what we highlight here is a need for another kind of change, one where there exists no singular concept as the goal for learning and development but instead, *conceptual adaptivity* among concepts as the aim.

The different conceptions of history presented above share only parts of their practices and the reasons for engaging in them, and the aims are held and valued varyingly by different experts and their communities. As many models of conceptual change (see, Vosniadou, 2013) and epistemic cognition (see, Greene, Sandoval, & Bråten, 2016) commonly rely on singular normative goals, this proposes a new challenge for researchers in these fields. Individuals can surely develop a high level of competence and expertise even within very specialized topics and methods and singular ways of conceptualizing their history. However, the domain of history is home to many ways of conceptualizing itself that differ radically in some ways (e.g., aims related to truth) while overlapping in others (e.g., ideal of coherence). Considering aims for degree-level students' learning of history, Donnelly and Norton (2011) suggest arriving at "an understanding of the different ways in which the subject is currently conceptualized", and indicated that "if you want to read historical accounts critically, rather than simply mine them for information, it helps if you can identify which approach is being used." (p. 6)

Most of the conceptualizations of history present in contemporary historical research are not completely incommensurable. However, operating with each requires one to recognize their characteristic aims, ideals, processes, limitations, and possibilities. All this suggests that developing historians might profit from what Hatano and Oura (2003) call *adaptive expertise* in the sense of having flexibility in contextual variations of conceptualizing history itself as well as crossing these boundaries in one's practice. This should not be an unsurmountable effort. For example, in many disciplines—including educational sciences—it is typical for students to learn both quantitative and qualitative research traditions, with the aim of achieving adaptivity among them. While both traditions share similarities, they typically aim at answering different kinds of questions, use different ideals to determine success in answering these questions, and employ somewhat different methods in collecting and analyzing data (Creswell & Miller, 2000; Yilmaz, 2013).

6. Connecting the domain and content levels of history concepts

So far, we have proposed that the target of conceptual change in history is not a single position but a choice of one among different conceptions of history or, alternatively, the ability to grasp (understand and use) multiple positions. Epistemologically, these positions differ according to their entailed epistemic aims, ideals, and reliable processes, and we have articulated key aims, ideals, and processes for each of the three positions. However, among educational researchers of conceptual change, the common level of analysis has been a bit different than what we describe above. This body of research has focused on concepts *within* a domain such as history. In contrast to the domain level described above, one might call this the *content level*. At this level, the interest lies in concepts relevant for a topic within the domain or for the domain more generally. The domain level differs from this by operating on another level of analysis: it assumes the domain itself as the concept of focus, that is, focuses on conceptual change in learners' understanding of the concept of history itself.

In history education, the content level refers to the concepts and knowledge that are taught and learned in and out of schools and universities. To build on what we have described above, we propose that acknowledging the multiple expert conceptions of history should also be recognized on this content level. In order to demonstrate this, we briefly outline a common framework[6], the *two-order framework*, that exemplifies the content level, and we exemplify through the concept of *power* how the epistemological framework and the two-order framework are interdependent in history education.

6.1. The two-order framework

One common framework used to both study students' ideas and to guide instructional and curricular planning is the so called *two-order framework* (Carretero et al., 2013; Carretero & Lee, 2014; Lee, 1983; Lee & Ashby, 2000; Lee, Dickinson, & Ashby, 1998; Lee & Shemilt, 2003; Lévesque, 2005; Limón, 2002; Rodríquez-Moneo & Lopez, 2017; Van Boxtel & Van Drie, 2018; Van Drie & Van Boxtel, 2008; VanSledright & Limón, 2006). The two-order framework builds on a differentiation between *first*- and *second-order concepts*. Researchers have used both types of concepts productively as units of analysis in studies of children and adolescents' development.

---

[6] This framework is not the only possible one for the content level, but in this paper we limit the discussion to it. For other frameworks, see, Seixas, 2017; Lévesque & Clark, 2018

First-order concepts (also known as *substantive concepts)* involve the substance of the past in historical works.[7] They "explicitly figure in historical accounts of the past" (Lee & Shemilt, 2003, p. 14) and commonly respond to the "who", "what", "when", "where" and "how" in historical works (Rodríquez-Moneo & Lopez, 2017). They are what history is "about" (Lee & Ashby, 2000). Concepts about events, structures, and themes are commonly regarded as first-order (Van Boxtel & Van Drie, 2018). Examples of concepts categorized as first-order in the above studies include *names*, *dates*, *democracy*, *socialism*, *stories of nation building*, *Civil Rights Movement*, *evolution of capitalism*, *industrialization*, *immigration*, *modern imperialism*, *entrepreneur*, *power*, *empire*, *politician*, *president*, and *plague*.

Second-order concepts are meta-concepts (Limón, 2002), which refer to concepts that historians use to study the past. They are not considered as the content of history but instead, something on a higher level than first-order concepts. According to this framework, second-order concepts are necessary for engaging in historical investigations and they that help shape the structure and discipline of history (Lee & Shemilt, 2003; Levesque, 2005; Van Boxtel & Van Drie, 2018). Examples of concepts categorized as second-order in the above studies include *evidence*, *empathy*, *change*, *cause*, *time*, *space*, *fact*, *description*, *narration*, *testimony*, *historical significance*, *progress and decline*, *historical context*, *human agency*, *reliability*, *colligation*, and *historical perspectives*.

Some observations can be made from the framework. First, there seems to be considerable variation in the kinds of concepts considered and some ambiguity about the criteria for inclusion in these orders. For example, first-order concepts such as *names*, *industrialization*, and *plague* do not appear to be equally inherent properties of the past.[8] Also, these second-order concepts span at least such broad categories as metaphysics (time, space, cause), epistemology (testimony, evidence, reliability), emotion (empathy), and ideology (progress). Second, the categorization of individual concepts is not always shared by different researchers.[9] Third, authors do not always clarify if the framework is used in a normative or descriptive way. Early researchers used the two-order framework to "understand the conceptual basis of students' historical understanding" (Lee, in Silva, 2012, p. 218). Later work, however, has implied also normative purposes, drawing from historians' practices. For example, Stoel and colleagues (2017) wrote about how "students need to develop their knowledge of the second-order concepts, which historians use to construct causal narratives about the past" (p. 322).

Regardless of these limitations, researchers have found the framework useful. We do not delve into the discussion of whether or not the two-order framework should be used as a normative or a descriptive framework but instead, merely observe that, at the moment, it is used in both ways. Therefore, if, and when, concepts are arranged into first- and second-order for the needs of history education, we propose that one might do well to consider that concepts *as such* are in no natural way neither first- or second-order. Instead, a single concept can be either one, and the "order" of a single concept can change across historians, historical works, and readings of these works. Different conceptions of history influence which concepts are allowed to be which "order", and how central a concept may become. Thus, the three epistemological positions of the domain level can be connected to the first- and second-order of the content level. An additional contribution of our analysis to prior work on the two-order framework is that we emphasize that the specifics of which concepts are first order and which are second order are dependent on which of the three epistemic modes one is working with. Furthermore, the influences are bidirectional. Not only does the choice of historical practice or epistemic mode (reconstructionist, constructionist, deconstructionist) affect choices of first- and second-order concepts, the chosen concepts also shape the way in which history is understood. We exemplify this in through the concept *power*.[10]

---

[7] As an exception to most accounts, VanSledright & Limón (2006) count both first-order and second-order concepts as substantive knowledge types. Also, while many takes on the this framework (e.g. Lee & Ashby, 2000) take procedural knowledge as second-order, Limón & Vansledright propose that the second-order act as a link to historians' procedural techniques and strategies, such as the heuristics of *sourcing*, *corroboration*, and *contextualization* (Wineburg, 1991).

[8] Within philosophy of history, Ankersmit (2012) has defended the thesis that differentiates subjects like Caesar and Napoleon from concepts such as the Middle Ages and French Revolution for the reason that the former presuppose unity and continuity whereas the latter create it.

[9] For example, *primary and secondary sources* are labeled as second-order concepts by Rodríquez-Moneo and Lopez (2017) but as first-order concepts by Lee (1983). Lee and Shemilt (2003) also indicated how confusion might arise with concepts such as *change*.

6.2. The concept of *power* as an example

Power—i.e. social power—is understood as a substantive first-order concept by VanSledright and Limón (2006). One can surely imagine power as part of an event, agent, or phenomenon of the past. However, considering the enormous influence of scholars such as Michel Foucault—for whom power was a key concept—on historians (Eley, 1996; Spiegel, 2005), one can easily imagine another position. Foucault conceptualized power as a kind of networked interplay of force and resistance that is present in all social interactions, such as discursive practices (Falzon, 2013, Lynch, 2014). Foucault also maintained "that there is no unmediated access for the human mind to a genuinely knowable original and truthful reality. Our only door to experience (past, present or future) is through the primary medium of language as a signifying process normally constituted within a framework for the exercise of power, legitimacy and illegitimacy" (Munslow, 2006a, p. 129).

Historians acknowledging this or other similar social theories of power cannot simply consider power as something that occurs in the "substance" of what they are writing about, but instead, they have to utilize the concept of power as one of the core theoretical concepts of their research approach. It thus figures into the aspects of historians' research practices, including the choice of sources and things to look for in them, as well as how epistemic output is synthesized and abstracted from research material into the literary products of historians. For example, a historian following Foucault's ideas or other similar lines of thought on might try to seek out power relations from the kind of things in source material that indicate generally recognized truths, unquestioned knowledge, silences, or common sense (Feder, 2014; Trouillot, 2015).

Taking the concept of power further, it is evident that similar questions are relevant also for historians acting in society. Historians might consider the kinds of power relations they themselves are involved in, and the effects their work might have for different discourse practices. As discussed above, different conceptions of history value such aspects to varying degrees. This is relevant for determining both the category and emphasis of concepts like power. In addition, this relation should also be considered the other way around

Finally, in addition to the subcategory level differences, concepts may need to be labeled in different categories of the two-order framework depending on the topics chosen by historians. Normally, concepts such as *evidence* and *objectivity* might be considered second-order. However, historians might also turn their investigative gaze toward the production and organization of archival evidence (Stoler, 2009); or the development of practices related to the epistemic ideal of objectivity (Daston & Galison, 2007). In such cases, one would be inclined to count these concepts also as first-order. [11]

---

[10] One might expect similar issues to arise also with many other concepts that have high relevance to several levels of history, such as *ideology*, *politics*, *representation*, *space*, etc.

7. Conclusion

Writing about understanding history, Murphy and Alexander (2013) called attention to how "broad and pervasive notions *about* a field can potentially have far more serious consequences to students' learning and development than the misconstrued ideas about any particular concept *within* a field" (p. 608, italics in original). In this text, we have grasped this issue by detailing possible differences and changes on the level of the domain itself, and considering their relevance for learning and development in professional historiography as well as history education more broadly.

The domain level was described through two frameworks, an ontological and an epistemological one. By calling the former ontological, we imply that at its core is an investigation at the level of the fundamental categories of "being" (e.g., Valore, 2016). By calling the latter epistemological, we imply that at its core is an investigation at the level of knowledge[12] and its practices (e.g. Chinn & Rinehart, 2016)—an investigation within a single ontic category of production or action. On the domain level, the concept involved is the domain itself, in this case *history*. The ontological framework targets the fundamental categories of the domain concept, whereas the epistemological framework targets a subcategory level of conceptions in one category of the ontological framework, namely, that of history-as-human-production. Even though concepts of history differ as it comes to their fundamental categories of being, the change needed is not necessarily a simple ontological shift. The epistemological framework was exemplified through Munslow's three epistemological positions towards history, read through the AIR model of epistemic cognition.

Overall, this paper provides two main conclusions. First, developed through the presentation of multiple expert conceptions of *history*, we argued that such a situation calls for conceptual change research in history—and perhaps also in other domains—to consider adaptivity with several concepts as a possible goal of conceptual change. In a "confession of a postmodernist historian", Rosenstone (2013) articulated a call for such adaptivity:

> Let me be clear: this is not meant as a call against empiricism in historical studies. It is an attempt, rather, to say that important aspects of the past lie outside the empirical circle. The past is vast and multifaceted. Our writing about it should be the same. Personally I can read with pleasure and learn from a traditional work, even if I must keep in mind the limitations on its truth claims.

---

[11] The issue here bears resemblance to the distinction between *primary* and *secondary sources*: no material is either one or the other as such but, instead, it gains its status only upon being summoned by some specific research interest. For example, while many historians commonly use other historians' accounts as secondary sources, an intellectual historian studying how historians have written about certain topics over time commonly uses these accounts as primary sources (Donnelly & Norton, 2011). Likewise, concepts such as power can be operationalized or presented as part of either one or many of the following: substance/content, method, and form.

[12] And building on epistemic pluralism (see above), we wish to include, we wish to also include other epistemic "commodities" in addition to knowledge, such as *understanding*.

> Other limitations on their truth claims have to be kept in mind when seeing a film or reading historical fiction. But why be limited to a single kind of work about the past? (p. 140–141)

Philosophers of science have raised the issue that an *epistemically just* evaluation of a scientific work in one discipline cannot be unproblematically conducted through the values, ideals, or explanatory scope of another discipline (Lõhkivi, Velbaum, & Eigi, 2012; Rolin, 2018). We propose to extend this argument towards the various conceptualizations of history-as-human-production outlined above. Work within one epistemological position can—and should—be read on the terms of other positions, but an epistemically just treatment of a work does not rely *only* on criteria external to the position which the work stems from. This is something both habitual readers as well as (more or less) expert historians should consider.

Second, we proposed that in history education the domain and content levels of concepts are interdependent. This implies a view of networked conceptual ecology where changes are required on different levels, and changes on one level determine constraints and possibilities for other levels. The proposed connections between the content level and the domain level can be summarized in the following three points: 1) studying concepts within a domain that itself is conceptualized as a human activity of production provides a more fruitful setting for learning of—and about—concepts and knowledge about the practice of history; 2) The first- or second-order status of a concept is determined situationally, depending at least on a) the epistemic mode and b) the topic of investigation; and 3) the kinds of concepts that get to be second-order influence the possibilities of learning the different epistemic modes of history.

Rodríquez-Moneo and Lopez (2017) proposed that the relationship between first- and second-order concepts is *bidirectional*, meaning that conceptual change in one can generate changes in the other and that they "feed into each other" (p. 479). Taking a step further, we propose, rather, that concepts can only be utilized for such categories situationally, according to the ways historians conceptualize history itself and the topics and methods that historians choose. A shift from a reconstructionist conception of history to a constructionist one goes together with the use of creative, expansive, and interdisciplinary use of theories and concepts, thus challenging simple generalizing categorizations of concepts to first-/second-order. Furthermore, a shift to a deconstructionist conceptualization of history takes this step even further and goes together with undermined role of certain concepts considered essential and primary in reconstructionist and/or constructionist conceptualizations. We suggest that history educators consider this before settling on a consensus on the type of concepts to be emphasized in curricula (see, Van Boxtel & Van Drie, 2018). Furthermore, in order to define which concepts historians utilize most often and most importantly, we need interdisciplinary research on the products and situated practices of past, present, and future historians (Virta, Puurtinen, & Pihlainen, 2016).

Finally, the ideas presented in this paper relate also to the discussion about if/how/when ideas related to postmodernism, philosophical skepticism, narrativism, or the like, should be included in history education (Parkes, 2009, 2014; Seixas, 2000; Yilmaz, 2007). Seixas (2000) warned educators about "show[ing] [students] what Foucault, [Hayden] White, and others have unleashed on the discipline" (p. 33), opting instead for a "disciplinary" approach to history—an approach that "provides students with standards for inquiry, investigation, and debate" (p. 24). Often, disciplinary approaches of education build heavily on some understanding of domain-specific expert practices

(Clark & Nye, 2018; Goldman et al., 2016). Hence, two observations challenge Seixas' (2000) suggestion. First, for some decades now, many philosophers of history have challenged the idea of there being any disciplinary center or common aims, standards, and purposes of doing history (see, Zammito, 2009). Second, if such a core were to exist in the current academia, works of theoreticians such as Foucault and White might very well find their place somewhere not too far from it. Historians have, already for a few decades, highlighted the popularity of theoreticians such as Foucault and White among their kind (Eley, 1996; Spiegel, 2005). Furthermore, recent philosophical and theoretical accounts of history as an empirical effort build substantially on the insights of the likes of Foucault and White (Kuukkanen, 2015; Spiegel, 2019). Therefore, even though a simplified version of historical practice is relevant for history education in the early years, history education in the later years would do well in preparing students to recognize and use different conceptions of the practice of history.

References

Ankersmit, F. (2012). *Meaning, truth, and reference in historical representation*. Ithaca, NY: Cornell University Press.

Aurell, J. (2015). Rethinking historical genres in the twenty-first century. *Rethinking History*, *19*(2), 145–157.

Barton, K. C. (2008). Research on students' ideas about history. In L. S. Levstik, & C. A. Tyson (Eds.), *Hanbook of research in social studies education* (pp. 239–258). New York, NY & Abingdon: Routledge.

Bloch, M. (1953). *The historian's craft (*Trans. P. Putnam). New York, NY: Vintage Books.

Booth, D. (2006). Sport historians: What do we do? How do we do it? In M. G. Phillips (Ed.), *Deconstructing sport history: A postmodern analysis* (pp. 27–54). Albany, NY: State University of New York Press.

Caravita, S., & Halldén, O. (1994). Re-framing the problem of conceptual change. *Learning and Instruction*, *4*(1), 89–111.

Carr, E. H. (1961). *What is history?*. New York, NY: Vintage Books.

Carrard, P. (2017). *History as a kind of writing: Textual strategies in contemporary French historiography* (Trans. A. Colin). Chicago, IL & London: The University of Chicago Press.

Carretero, M., Castorina, J.A., & Levinas, L. (2013). Conceptual change and historical narratives about the nation: A theoretical and empirical approach. In S. Vosniadou (Ed.), *International handbook of research on conceptual change* (2nd ed.), (pp. 269–287). New York, NY: Routledge.

Carretero, M., & Lee, P. (2014). Learning historical concepts. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (2nd ed.), (pp. 587–604). New York, NY: Cambridge University Press.

Chi, M. T. H. (1997). Creativity: Shifting across ontological categories flexibly. In T. B. Ward, S. M. Smith, & J. Vaid (Eds.), *Creative thought: An investigation of conceptual structures and processes* (pp. 209–234). Washington: American Psychological Association.

Chi, M. T. H. (2013). Three types of conceptual change: Belief revision, mental model transformation, and categorical shift. In S. Vosniadou (Ed.), *International handbook of research on conceptual change* (2nd ed.), (pp. 49–70). New York, NY: Routledge.

Chi, M. T. H., Slotta, J. D., & De Leeuw, N. (1994). From things to processes: A theory of conceptual change for learning science concepts. *Learning and Instruction*, *4*(1), 27–43.

Chinn, C. A., Rinehart, R. W., & Buckland, L. A. (2014). Epistemic cognition and evaluating information: Applying the AIR model of epistemic cognition. In D. N. Rapp, & J. L. G. Braasch (Eds.), *Processing inaccurate information: Theoretical and applied perspectives from cognitive science and the educational sciences* (pp. 425–453). Cambridge, MA & London: MIT Press.

Chinn, C. A., & Rinehart, R. W. (2016). Epistemic cognition and philosophy: Developing a new framework for epistemic cognition. In J. A. Greene, W.A. Sandoval, & I. Bråten (Eds.), *Handbook of epistemic cognition* (pp. 460–478). New York, NY: Routledge.

Chinn, C. A., & Samarapungavan, A. (2009). Conceptual change—multiple routes, multiple mechanisms: A commentary on Ohlsson (2009). *Educational Psychologist*, *44*(1), 48–57.

Clark, J., & Nye, A. (Eds.), (2018). *Teaching the discipline of history in an age of standards*. Singapore: Springer.

Coliva, A., & Pedersen, N. J. L. L. (Eds.), (2017). *Epistemic pluralism*. Cham: Palgrave Macmillan.

Coraiola, D. M., Foster, W. M., & Suddaby, R. (2015). Varieties of history in organization studies. In P. G. McLaren, A. J. Mills, & T. G. Weatherbee (Eds.), *The Routledge companion to management and organizational history* (pp. 206–221). London & New York, NY: Routledge.

Creswell, J. W., & Miller, D. L. (2000) Determining validity in qualitative inquiry. *Theory into Practice*, *39*(3), 124–130.

Daston, L., & Galison, P. (2007). *Objectivity*. Brooklyn, NY: Zone Books.

Díaz, A., Middendorf, J., Pace, D., & Shopkow, L. (2008). The history learning project. A department “decodes” its students. *Journal of American history*, *94*(4), 1211–1224.

diSessa, A. A. (1993). Towards an epistemology of physics. *Cognition and Instruction*, *10*, 105–225.

Donnelly, M., & Norton, C. (2011). *Doing history*. London & New York, NY: Routledge.

Eley, G. (1996). Is all the world a text? From social history to the history of society two decades later. In T. J. McDonald (Ed.), *The historic turn in the human sciences* (pp. 193–243). Ann Arbor, MI: University of Michigan Press.

Ermarth, E. D. (2011). *History in the discursive condition: Reconsidering the tools of thought*. London & New York, NY: Routledge.

Falzon, C. (2013). Making history. In C. Falzon, T. O'Leary, & J. Sawicki (Eds.), *A companion to Foucault* (pp. 282–298). Chichester: Wiley-Blackwell.

Feder, E. K. (2014). Power/knowledge. In D. Taylor (Ed.), *Michel Foucault: Key concepts* (p. 55–68). London & New York, NY: Routledge.

Gaddis, J. L. (2002). *The landscape of history. How historians map the past*. New York, NY: Oxford University Press.

Goldman, S. R., Britt, M. A., Brown, W., Cribb, G., George, M., Greenleaf, C., … & Project READI. (2016). Disciplinary literacies and learning to read for understanding: A conceptual framework for disciplinary literacy. *Educational Psychologist*, *51*(2), 219–246.

Grajner, M., & Schmechtig, P. (2016). Introduction: Epistemic reasons, norms and goals. In M. Grajner, & P. Schmechtig (Eds.), *Epistemic reasons, norms and goals* (pp. 1–30). Berlin & Boston, MA: De Gruyter.

Greene, J. A., Sandoval, W. A., & Bråten I. (Eds.), (2016). *Handbook of epistemic cognition*. New York, NY: Routledge.

Gumbrecht, H-U. (1997). *In 1926: Living on the edge of time*. Cambridge, MA & London: Harvard University Press.

Halldén, O. (1986). Learning history. *Oxford Review of Education*, *12*(1), 53–66.

Hammer, D., & Elby, A. (2002). On the form of personal epistemology. In B. K. Hofer, & P. R. Pintrich (Eds.), *Personal epistemology: The psychology of beliefs about knowledge and knowing* (pp. 169–190). Mahwah, NJ: Lawrence Erlbaum.

Hatano, G., & Oura, Y. (2003). Commentary: Reconceptualizing school learning using insight from expertise research. *Educational Researcher*, *32*(8), 26–29.

Hughes-Warrington, M. (2008). *Fifty key thinkers on history* (2nd ed.). London & New York, NY: Routledge.

Iggers, G. G., Wang, Q. E., & Mukherjee, S. (2017). *A global history of modern historiography* (2nd ed.). London & New York, NY: Routledge.

Jenkins, K. (1991). *Re-thinking history*. London & New York, NY: Routledge.

Jenkins, K., & Munslow, A. (Eds.), (2004). *The nature of history reader*. London & New York, NY: Routledge.

Koselleck, R. (1997). The temporalisation of concepts (Trans. K. Sondermann). *Redescriptions: Political Thought, Conceptual History and Feminist Theory*, *1*(1), 16–24.

Kuukkanen, J-M. (2015). *Postnarrativist philosophy of historiography*. Basingstoke & New York, NY: Palgrave Macmillan.

Latour, B. (1999). *Pandora's hope. Essays on the reality of science studies*. Cambridge, MA & London: Harvard University Press.

Lee, P. (1983). History teaching and philosophy of history. *History and Theory*, *22*(4), 19-49.

Lee, P., & 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* (pp. 199–222). New York, NY & London: New York University Press.

Lee, P., Dickinson, A., & Ashby, R. (1998). Researching children's ideas about history. In J.F. Voss, & M. Carretero (Eds.), *International review of history education. Volume 2: Learning and reasoning in history* (pp. 227–251). London & New York, NY: RoutledgeFalmer.

Lee, P., & Shemilt, D. (2003). A scaffold, not a cage: progression and progression models in history. *Teaching History*, *113*, 13–23.

Leinhardt, G., & Ravi, A. (2013). Changing historical conceptions of history. In S. Vosniadou (Ed.), *International handbook of research on conceptual change* (2nd ed.), (pp. 253–268). New York, NY: Routledge.

Lévesque, S. (2005). Teaching second-order concepts in Canadian history: The importance of "historical significance". *Canadian Social Studies*, *39*(2). Retrieved (April 17, 2019) from: https://files.eric.ed.gov/fulltext/EJ1073987.pdf

Lévesque, S., & Clark, P. (2018).Historical thinking: Definitions and educational applications. In S. A. Metzger & L. M. Harris (Eds.), *The Wiley international handbook of history teaching and learning* (pp. 119–148). Hoboken, NJ: Wiley-Blackwell.

Limón, M. (2002). Conceptual change in history. In M. Limón, & L. Mason (Eds.), *Reconsidering conceptual change: Issues in theory and practice* (pp. 259–289). Dordrecht: Kluwer.

Lynch, R. A. (2014). Foucault's theory of power. In D. Taylor (Ed.), *Michel Foucault: Key concepts* (p. 13–26). London & New York, NY: Routledge.

Lõhkivi, E., Velbaum, K., & Eigi, J. (2012). Epistemic injustice in research evaluation: A cultural analysis of the humanities and physics in Estonia. *Studia Philosophica Estonica*, *5*(2) 108–132.

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

Marwick, A. (1989). *The nature of history* (3rd ed.). Basingstoke & London: Macmillan.

Maza, S. (2017). Thinking about history. Chicago, IL & London: The University of Chicago Press.

McCrum, E. (2013). History teachers' thinking about the nature of their subject. *Teaching and Teacher Education*, *35*, 73–80.

Meretoja, H. (2018). *The ethics of storytelling. Narrative hermeneutics, history, and the possible*. New York, NY: Oxford University Press.

Mortimer, E. F. (1995). Conceptual change or conceptual profile change?. *Science & Education*, *4*(3), 267–285.

Munslow, A. (2003). *The new history*. London & New York, NY: Routledge.

Munslow, A. (2006a). *Deconstructing history* (2nd ed.). London & New York, NY: Routledge.

Munslow, A. (2006b). *The Routledge companion to historical studies* (2nd ed.). London & New York, NY: Routledge

Munslow, A. (2010). *The future of history*. London: Palgrave Macmillan.

Munslow, A. (2015). Genre and history/historying. *Rethinking History*, *19*(2), 158–176.

Murphy, P. K., & Alexander, P. A. (2013). Situating text, talk, and transfer in conceptual change: Concluding thoughts. In S. Vosniadou (Ed.), *International handbook of research on conceptual change* (pp. 603–621). (2nd ed.). New York, NY & London: Routledge.

Nye, A., Hughes-Warrington, M., Roe, J., Russell, P., Deacon, D., & Kiem, P. (2011). Exploring historical thinking and agency with undergraduate history students. *Studies in Higher Education*, *36*(7), 763–780.

Parkes, R. J. (2009). Teaching History as historiography: engaging narrative diversity in the curriculum. *History Education Research Journal*, *8*(2), 118–132.

Parkes, R. J. (2014). No outside history: Reconsidering postmodernism. *Agora*, *49*(3), 4–10.

Partner, N. (2013). Foundations: Theoretical frameworks for knowledge of the past. In N. Partner, & S. Foot (Eds.), *The Sage handbook of historical theory* (p. 1–8). London: Sage Publications.

Paul, H. (2015). *Key issues in historical theory*. New York, NY & London: Routledge.

Pihlainen, K. (2017). *The work of history. Constructivism and a politics of the past*. New York, NY & London: Routledge.

Pinto, P. R., & Taithe, B. (2015). Doing history in public? Historians in the age of impact. In P. R. Pinto, & B. Taithe (Eds.), *The Impact of history? Histories at the beginning of the twenty-first century* (pp. 1–20). London & New York; NY: Routledge.

Reed, I. A. (2011). *Interpretation and social knowledge. On the use of theory in the human sciences*. Chicago, IL & London: The University of Chicago Press.

Rodríguez-Moneo, M., & Lopez, C. (2017). Concept acquisition and conceptual change in history. In, M. Carretero, S. Berger, & M. Grever (Eds.), *Palgrave handbook of research in historical culture and education* (pp. 469–490). London: Palgrave Macmillan.

Rolin, K. (2018). Scientific imperialism and epistemic injustice. In U. Mäki, A. Walsh, & M. F. Pinto (Eds.), *Scientific imperialism: Exploring the boundaries of interdisciplinarity* (pp. 51–68). London & New York, NY: Routledge.

Rosenstone, R. (2013). Confessions of a postmodern (?) historian. In A. Munslow (Ed.), *Authoring the past: Writing and rethinking history* (p. 127–141). London & New York, NY: Routledge.

Runia, E., & Tamm, M. (2019). The past is not a foreign country: A conversation. *Rethinking History*. doi.org/10.1080/13642529.2019.1587250

Schiffman, Z. S. (2011). *The birth of the past*. Baltimore, MD: Johns Hopkins University Press.

Seixas, P. (2000). Schweigen! Die Kinder! or, Does postmodern history have a place in the schools?. In P. N. Stearns, P. Seixas, & S. Wineburg (Eds.), *Knowing, teaching, and learning history: National and international perspectives* (pp. 19-37). New York, NY & London: New York University Press.

Seixas, P. (2017) A model of historical thinking. *Educational Philosophy and Theory*, *49*(6), 593–605.

Shtulman, A., & Valcarcel, J. (2012). Scientific knowledge suppresses but does not supplant earlier intuitions. *Cognition*, *124*(2), 209–215.

Silva, C. B. d. (2012). History education – Some thoughts from the UK: Interviews Peter J. Lee. *Tempo e Argumento*, *3*(2), 217–250.

Sinatra, G. M., & Chinn, C. A. (2012). Thinking and reasoning in science: Promoting epistemic conceptual change. In K. Harris, C.B. McCormick, G.M. Sinatra, & J. Sweller (Eds.), *Critical theories and models of learning and development relevant to learning and teaching*, Volume 1 (pp. 257–282). In K. Harris, & S. Graham (Eds.), APA Educational Psychology Handbook Series. APA Publications.

Spiegel, G. M. (2005). Introduction. In G. M. Spiegel (Ed.), *Practicing history. New directions in historical writing after the linguistic turn* (pp. 1–30). New York, NY & London: Routledge.

Spiegel, G. M. (2019). The limits of empiricism: The utility of theory in historical thought and writing. *The Medieval History Journal*, *22*(1), 1–22.

Stoler, A. L. (2009). *Along the archival grain. Epistemic anxieties and colonial common sense.* Princeton, NJ & Oxford: Princeton University Press.

Stoel, G. L., Van Drie, J. P., & Van Boxtel, C. A. (2017). The effects of explicit teaching of strategies, second-order concepts, and epistemological underpinnings on students' ability to reason causally in history. *Journal of Educational Psychology*, *109*(3), 321–337.

Torstendahl, R. (2015). *The rise and propagation of historical professionalism*. New York, NY & London: Routledge.

Trouillot, M-R. (2015). *Silencing the past: Power and the production of history*. Boston, MA: Beacon Press.

Valore, P. (2016). *Fundamentals of ontological commitment*. Berlin & Boston, MA: De Gruyter.

Van Drie, J., & Van Boxtel, C. (2008). Historical reasoning: Towards a framework for analyzing students' reasoning about the past. *Educational Psychology Review*, *20*(2), 87–110.

Van Boxtel, C., & Van Drie, J. (2018). Historical reasoning: Conceptualizations and educational applications. In S. A. Metzger & L. M. Harris (Eds.), *The Wiley international handbook of history teaching and learning* (pp. 149–176). Hoboken, NJ: Wiley-Blackwell.

VanSledright, B., & Limón, M. (2006). Learning and teaching social studies. In P. Alexander and P. Winne (Eds.), The handbook of educational psychology (2nd Ed.), (pp. 545–570). Mahwah, NJ: Lawrence Erlbaum Associates.

VanSledright, B., & Reddy, K. (2014). Changing epistemic beliefs? An exploratory study of cognition among prospective history teacher. *Tempo e Argumento*, *6*(11), 28–68.

Virta, A. (2001). Student teachers' conceptions of history. *International Journal of Historical Learning, Teaching and Research*, *2*(1), 53–64.

Virta, A. (2011) Harrastuksesta ammatiksi: Historian opettajaksi opiskelevien suhde historiaan [From a hobby into a profession: History teacher students' relation to history]. *Kasvatus & Aika*, *5*(3), 68–81.

Virta, A., Puurtinen, M., & Pihlainen, K. (2016). Monitieteinen näkökulma historian asiantuntijuuteen [Multidisciplinary approach to expertise in history]. *Historiallinen Aikakauskirja*, *3*, 306–315.

Vosniadou, S. (Ed.), (2013). *International handbook of research on conceptual change* (2nd ed.). New York, NY: Routledge.

Vörös, L. (2017). Social demand and the social purpose of history: What is missing from Alun Munslow's classification of historiography?. *The Hungarian Historical Review*, *6*(4), 776–803.

Wansink, B., Akkerman, S., & Wubbels, T. (2016). The certainty paradox of student history teachers: Balancing between historical facts and interpretation. *Teaching and Teacher Education*, *56*, *94–105*.

White, H. (2014). *The practical past*. Evanston, IL: Northwestern University Press.

Wineburg, S.S. (1991). Historical problem solving: A study of the cognitive processes used in the evaluation of documentary and pictorial evidence. *Journal of Educational Psychology*, *83*(1), 73–87.

Yilmaz, K. (2007). Introducing the 'linguistic turn' to history education. *International Education Journal*, *8*(1), 270–278.

Yilmaz, K. (2008) Social studies teachers' conceptions of history: Calling on historiography. *The Journal of Educational Research*, *101*(3), 158–176.

Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, *48*(2), 311–325.

Zammito, J. (2009). Historians and philosophy of historiography. In A. Tucker (Ed.), *A companion to the philosophy of history and historiography* (pp. 63–84). Chichester: Wiley-Blackwell.

Zeleňák, E. (2011). Modifying Alun Munslow's classification of approaches to history. *Rethinking History*, *15*(4), 523–537.