Learning historical concepts

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R. Keith Sawyer

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29 Learning Historical Concepts

Mario Carretero and Peter Lee

History is about what people have done and what has happened to them, but it can also be about the shape of society or institutions at particular times in the past. History seems to be about everyday, commonsense things – decisions that people make, actions that people take. We all make decisions and take actions every day, so many people believe that history can be understood simply by applying commonsense understandings. In history we learn about *presidents*, *entrepreneurs*, *constitutions*, and *trade*, and although most of us have never met a president, we can easily think of the president's actions and decisions as variants of actions and decisions that we ourselves engage in. And although sometimes we read about things that are never encountered in modern life (like *pharaoh*, *serf*, *puritan*, or *musket*), we can easily conceive of these as quaint versions of what we know already. The task of learning history, then, is often portrayed as being less about mastering strange and esoteric conceptual tools than about acquiring information about ordinary life, as it was and as it unfolded. In short, history seems to be commonsense and cumulative.

In this chapter, we argue that this simplistic view of history learning is a mistake. Four decades of research suggests that thinking historically is counterintuitive (Lee, 2005). History requires understanding concepts that differ from everyday conceptions and explanations. Some everyday ideas are completely incompatible with history; many students, for example, believe that we can only really know anything by directly experiencing it. Many more students believe that because there was only one past series of events that actually occurred, there can only be one true description of the past. It is likely that children often learn how to "tell the truth" by appeal to a fixed past against which we can measure truth claims. Such an idea is useful in day-to-day affairs where conventions of relevance may be shared, but in history it fails completely. There may be differing views about what questions to ask, and contested conventions of relevance. Moreover, what is asserted may not be something that could have been witnessed by anyone; changes in values, birth rates, or the environment could not be directly witnessed like births or battles: they must be inferred, not observed.

We know from misconceptions research in science education (see diSessa, Chapter 5, this volume) that science learners have to abandon commonsense concepts (like *weight* or *speed*) and struggle with very different tools

for handling the world (like *mass* or *velocity*) or even ideas that appear – sometimes despite their labels – to have no analog in common sense (like *entanglement* or *neutron*). We argue that successful learning in history involves similar challenges to learning physics – they both require learners to overcome misconceptions.

If we examine, for example, how the French Revolution is presented to students in many regions, we see that the students are presented with abstract concepts and arguments – such as the structure of French society at that time or the emergence of free-thinking ideas and their connection with economic and sociopolitical factors. This example demonstrates that history shares many of the complexities of the social sciences. For example, numerous investigations indicate that an answer to a question like "Why has poverty existed and why does it still exist in the world?" involves political, economic, social, cultural, and other causes, forming a multicausal structure whose understanding requires complex and abstract thinking. In contrast, many affluent and middle-class students are likely to believe that this question has a simple answer: poverty continues to exist only because certain individuals do not have the will to overcome it (see Barton, 2008, for extended review).

The example of poverty hints at the complexities of substantive history, but does not touch on a more fundamental problem that students face: How can we know anything about the past? Given the fact that no one alive today was present to witness most of the human past, the stories and explanations that history purports to offer seem to many students to be at best a matter of opinion. For students who think like this, history does not seem to be common sense, but rather, it seems to be subjective opinion – which is odd for a field that purports to be scholarly.

The content of historians' stories and explanations are populated with first-order elements, for example *peasants*, *generals*, *laws*, and *priests*, but always behind (or above) any account of these first-order elements are implicit second-order concepts of, for example *historical evidence*, *change*, *significance*, and *accounts*. Professional historians make assumptions about the nature of historical evidence, explanations, and accounts, and these lie behind any substantive claims about the past (Lee, 2005). In this chapter, we consider "learning history" in two sections: how students learn the substantive knowledge of the past – the first-order content, and how they learn the second-order understanding that helps organize and underpin that substantive knowledge.

Understanding Substantive Historical Concepts

Research indicates that students' understanding of events and processes can vary greatly in complexity throughout adolescence and adulthood (Barrett & Barrow, 2005; Furnham, 1994). For example, some students

understand revolutions as simple confrontations between groups of people rather than as structural changes affecting all aspects of society. These students also understand monarchy only in terms of the actions of an individual king; they may have difficulty understanding that a modern nation-state is not simply a territory and its inhabitants, but a complex social system that could only have emerged relatively recently in human history because of economic, intellectual, and technological developments (Carretero, Castorina, & Levinas, 2013).

Understanding the conceptual framework that is involved in the processes of societal change – examples include the Neolithic revolution and the transition from feudalism to capitalism – requires a mastery of concepts that have no direct manifestation in empirical reality; rather, they are theoretical elaborations by social scientists and historians. These historical concepts and theories have an intrinsically changing nature. As history teachers know, any historical concept, for example *democracy*, did not mean the same thing in classical Greece as it means now. This is a very well-known teaching issue, and it is also a central and unresolved issue among professional historians.

Historical concepts possess many diverse meanings. Concepts can be used in different ways, not only because of the passing of time, but also in the same historical moment, by different groups and interests. This is extremely important not only from a theoretical point of view, but also when it comes to teaching history, where complex concepts – such as *independence*, *emancipation*, *liberty*, *people*, *nation*, *state*, *patriotism*, *citizenship*, and so forth – need to be introduced. Such concepts change their meaning through time and have different connotations for individuals and groups. History teaching must therefore take into account how students use such historical concepts and how the student (and the class) could represent different features of the same concept, generating different meanings according to their prior knowledge and cultural experience. Failure to do so means teachers may not be addressing the ideas they intend, leaving students to assimilate what is being taught to existing preconceptions.

According to recent research, the ability to understand historical concepts progresses along with the development of conceptual thinking more generally (Barton, 2008; Limón, 2002). *Conceptual development* refers to both the type of characteristics or attributes with which concepts are defined and the connections that are established between them. Conceptual development takes two forms. First, a student progresses from understanding concepts through their more concrete dimensions to assigning more abstract qualities to the concepts (see Figure 29.1). This development is reflected in (for example) a typical student's conception of social institutions. Younger pupils have a more concrete understanding of institutions and social realities: they are embodied by the people who represent them or by specific events. For example, the French Revolution is associated with Napoleon, or the Industrial Revolution is associated with the invention of the steam

Change	Concepts		
		Initial understanding	Final understanding
From concrete to abstract	Facts	Reduction to superficial aspects (directly perceptible)	Definition by deep features (dependent theoretical elements)
	Institutions	Personalization	Institutionalization
From static to dynamic	Simultaneous realities	The different fields of social and historical reality (e.g., political, economic) appear separate	Integration of the various fields of social and historical reality
	Successive realities	Conception of social reality as immutable (naturalization of social and historical beliefs)	Understanding of social change and consideration of social and historical objects and phenomena as processes and in a distanced manner

Figure 29.1. *Development of the understanding of substantive historical concepts.*

engine. In this naïve understanding, history is composed of a succession of people and events, such as Napoleon or the invention of the steam engine. With increasing understanding, a student begins to understand social and historical concepts better, but in a static and isolated manner. Finally, the student comes to understand history as an increasingly complex conceptual network in which different elements are interconnected and in which every social and historical reality is dynamically defined by its relationship with other aspects of reality.

In their comprehension of the social world at any given time in history, adolescents generally believe that the various elements of the social world are disconnected, seldom establishing any connections between the different aspects of a social reality (e.g., political, economic, social, cultural, military). For example, they think that cultural progress is caused by purely cultural factors, and that it has no connection with any political or economic factors. Voss and Carretero (2000) asked a group of college students to explain the dissolution of the Soviet Union in 1991. Some students provided more complex explanations than others, but any mention of interactions between the factors (e.g., economic problems, nationalism, international context) was rare.

In their comprehension of changes across time, teenagers generally tend to think that things continue as they are, with little change possible (see Figure 29.1). Representations of historical and social phenomena in children

and even some adolescents and adults have proven rather static. Students tend to think that different social situations are immutable. And as a result, social change is difficult for them to understand, and a proper learning of history is quite difficult.

We argue that school history should do more than simply teach "first-order" facts and concepts; it should also teach students to "think historically," what we have called "second-order" understanding – the ability to use evidence, to give and assess explanations, and to construct and evaluate narratives of the past. Curriculum and teaching that is designed to develop historical thinking must move beyond asking students to copy, sort, and drill for memory of facts. The most influential and large-scale example of such an approach was the Schools Council History Project in the United Kingdom in the 1980s, and perhaps the most significant current example is the Historical Thinking Project in Canada (Seixas, 2010; Shemilt, 1980).

To develop these new approaches in this educational area, one must know how students of different ages conceive of history. Do students believe that history is an exact reflection of past reality? Or do they understand that history emerges from a reasoning process and therefore from human interpretation? These questions were addressed by Shemilt (1983), who demonstrated that the comprehension of students between 13 and 16 years of age evolves from a realistic conception of historical inquiry – in which they believe that historians simply find written historical data – to a more negotiated conception through which they understand the significant difference between hypotheses and supporting evidence. In a study primarily involving students from 10 to 11 years of age, Brophy, VanSledright, and Bredin (1992) also found that students of this age believed history to be an exact science consisting of unambiguous facts, and that a historian resembles the popular stereotype of the archaeologist who objectively examines remnants of the past. When students move past this misconception to a more negotiated conception, they begin to understand the function of primary sources and the importance of understanding the historical and social context in which those sources were generated.

There is considerable agreement that thinking historically requires at least the following:

a) Being able to use evidence to confirm or disconfirm singular factual statements about the past.
b) Understanding that historical accounts are constructions in answer to questions, and are neither copies of the past nor simply aggregations of singular factual statements.
c) Imagining situations that one cannot experience, and entertaining values and beliefs about the world that one does not share (sometimes employing concepts that are strange and even repugnant, and which no longer have equivalents nowadays).

d) Defining abstract concepts with precision and demonstrating how the meanings of these concepts, as they are used and defined by others, have changed over time.
e) Developing hypotheses regarding the causes and effects of past events by considering that a cause can be remote both in time and in the analysis of its effects. This type of thinking implies the added complexity of the need to account for different levels of analysis (for example, some political effects of an event may originate from religious causes), which are sometimes combined with a temporal dimension.
f) Examining the extent to which the developed hypotheses conform to the facts, while understanding that reality is complex and that one can always find and consider counterarguments.
g) Analyzing change (and continuity) over time, as indicated by (c), (d), and (e). This also involves understanding ideas related to time, like duration, sequence, and temporal conventions.

The following review focuses on (a) through (e), but the research mentioned often has implications for (f) and (g).

A. Evidence

Historians select and evaluate *evidence* from the past, which often entails using written documents to construct accounts and explanations of past events. Wineburg (1991a, 1991b) demonstrated that historians use three heuristics or strategies known as *corroboration*, *sourcing*, and *contextualization* that are not used by college students lacking specific knowledge of history. According to the first of these heuristics, a historian always looks to find important details from different sources before accepting them as probable or plausible. The sourcing heuristic means that through the evaluation of evidence, historians pay attention to their original source. Finally, the contextualization heuristic refers to the general tendency of historians to place events in historical space and time within a chronological sequence.

An empirical study on the expulsion of the Moors from Spain during the 17th century confirmed that participants with a high level of expertise (university professors who are specialists in modern history) use the contextualization heuristic (Limón & Carretero, 1999, 2000; see also VanSledright & Limón, 2006 for a review). Their interpretations differed significantly from those of fifth-year university students majoring in history (the other group participating in the study), particularly in two aspects:

i) The professors accounted for and interrelated various levels of analysis (economic, political, social, and ideological); a difficult task for children and teenagers (Carretero, López-Manjón, & Jacott, 1997).

Figure 29.2. *Christopher Columbus receives presents from the Cacique Quacanagari on Hispaniola (what is now modern Haiti). Theodore de, Bry (1528–1598). Engraving.*

ii) The professors considered the "time" dimension by distinguishing between the analysis and assessment of the problem in the short, medium, and long term, whereas fifth-year history majors do not make such a distinction. This also sheds light on (g), analyzing change over time.

To think historically, students have to abandon the assumption that we rely on *reports* for our knowledge of the past, and develop a genuine concept of *evidence*. Evidence ceases to be a special category of objects: anything can be evidence for appropriate questions, and in this sense evidence is created by questions.

Historians often use images as a method of solving historical problems. In several inquiries, research participants of different ages were shown a historical picture, Figure 29.2, that commonly appears in textbooks, and asked to provide a historical narrative for the picture. Figure 29.2 is an engraving by T. De Bry and it was the focus of our inquiry in a comparative study of textbooks (Carretero, Jacott, & López-Manjon, 2002). Results for adolescents and adults from three different countries (Argentina, Chile, and

Spain) indicate that 12- and 14-year-old students range from considering the image in a "realistic" manner (i.e., almost as a copy of the reality that supposedly occurred) to considering the picture itself as a historiographic product that does not copy the past reality but is a product of history and thus requires distanced and theoretical interpretation and analysis. In some adults and 16-year-old subjects, we found only the last conception. After comparing students from different countries and finding the same developmental sequence, the study concluded that the evolution of this heuristic in the interpretation of historical images does not appear to depend on cultural influences but rather responds to a pattern that is determined by cognitive development. This pattern of change in the representation of historical images demonstrates the transition from a concrete and realistic to an abstract and complex way of considering historical "objects," as shown in the research of the development and change of historical and social concepts.

B. Historical Accounts

Students undergo a developmental trajectory in their understanding of historical *accounts*. These understandings tend to progress from less to more powerful, as shown in Figure 29.3. This model seems to accurately represent student development in several different cultures (Lee & Ashby, 2000). Later in this chapter, we further explore a particularly common form of historical account, the *narrative*.

C and D. Empathy

Empathy has been defined as the ability to understand others' actions in the past and to recognize that other people and other societies had beliefs, values, and goals that differed from our own. Students tend to assume that people in the past had the same beliefs and values as they do (Ashby & Lee, 1987; Shemilt, 1984). Wineburg (2001) described this as a "default" position. Indeed, there is considerable evidence to suggest that many students assume that because people in the past acted in ways we would not, and accepted institutions that would be unacceptable today, they were defective in both intelligence and ethical judgment, compared with us (Lee & Ashby, 2001). In contrast, professional historians understand that beliefs and values are different in different historical periods and different societies; an important element of historical thinking is the ability to imagine oneself in a very different time with a different worldview. Again, it is possible to produce a progression model of ideas likely to be held by students in connection with empathy (see Figure 29.4), allowing teachers to anticipate possible prior conceptions to be addressed in the classroom (Lee & Shemilt, 2011).

1. **Accounts are just (given) stories**
   Accounts are stories that are just 'there', Competing stories are just different ways of saying the same thing, rather like the school task of telling the same story 'in our own words'.
2. **Accounts fail to be copies of a past we cannot witness**
   Accounts cannot be 'accurate' because we were not there to see the past and therefore cannot know it; they differ because they are just 'opinion', that is, a substitute for knowledge we can never have.
3. **Accounts are accurate copies of the past, except for mistakes or gaps**
   If we know the facts, there is a one-to-one correspondence between the past and accounts. (This is the positive correlate of the previous position.) 'Opinion' is a result of gaps in information and mistakes.
4. **Accounts may be distorted for ulterior motives**
   Accounts are distorted copies of the past. Differing accounts derive not simply from lack of knowledge, but from authors who necessarily distort the past. 'Opinion' is bias, exaggeration and lies stemming from partisan positions. Ideally a story should be written from no position.
5. **Accounts are organized from a personal viewpoint**
   Accounts are arrangements of significant parts of the past chosen by historians. Students who think like this have made a major break with previous ideas by abandoning the idea that accounts should be copies of the past. 'Opinion' re-appears as personal choice in the selection historians make, but this does not make it partisan. A viewpoint and selection are legitimate features of accounts. Historians may be interested in answering different questions.
6. **Accounts must answer questions and fit criteria**
   Differences in accounts are not just a matter of authors' choices; accounts are necessarily selective, and constructed for particular themes and timescales. There can be no complete account. It is in the nature of accounts to differ — legitimately — from one another: they (re-) construct the past in answer to questions. Accounts are assessed against criteria in order to determine their admissibility and relative worth. Rival accounts of the same topics may be accepted because they address equally worthwhile questions about that topic. Disciplinary criteria exclude many possible accounts of the past, but do not prescribe a fixed number of admissible accounts.

Figure 29.3. *A provisional progression model of students' ideas about historical accounts.*

1. **A Deficit Past**
   Past action is unintelligible because people in the past were stupid, not as clever as we are, inept, morally defective, or "didn't know any better".
2. **Generalized Stereotypes**
   Past action explained in terms of conventional stereotypes of roles, institutions etc. Ascription of very generalized dispositions. "They would do that, wouldn't they."
3. **Everyday Empathy**
   Past action explained in terms of the specific situation in which agents found themselves, but this is seen in modern terms. No consistent distinction between what the agent could know and what we now know, or between past beliefs and values and ours.
4. **Restricted Historical Empathy**
   Recognition that the agent's knowledge, beliefs and values may have differed from ours, and that intentions and purposes may be complex, qualified and ramified.
5. **Contextual Historical Empathy**
   Action set in a wider context of beliefs and values, and a recognition that it may require to be understood as having implicit goals related to matters outside its overt concerns.

Figure 29.4. *A highly simplified progression model of students' ideas about historical empathy.*

E. Cause

Another central area of study involves examining the evolution in the understanding of historical *causality* during the school years and the type of explanations participants provide when required to give an account of a specific historical and social event. In one study, students were asked to link boxes to explain an event (Lee, Dickinson, & Ashby, 2001). This study identified three strategies for the formulation of causal explanations: the *additive strategy*, according to which causes are established in a linear and isolated manner; the *narrative strategy*, in which linear chains of cause united by "and then" or "therefore" are formed; and the *analytical strategy*, in which connection nodes are set between causes. Shemilt (1983) analyzed students' ideas to produce a developmental model of causal explanation. In this model, learners gradually transition from the idea that causes are immanent in past events, to the idea that "cause" is a property of persons (a causal power), and finally to a notion of causal chains or networks. As students become more sophisticated in their understanding of historical causality, they begin to realize the possibilities opened up or constrained by prevailing social, economic, and political conditions. At the most advanced level, conditions are understood to be contingent on the contexts in which they operate, and causal explanations are understood to be more like theories than things to be found in the world.

A key component of causal understanding is the understanding of *necessary* and *sufficient conditions*. In one study, university students were asked to explain the collapse of the former Soviet Union. This study found that the students had "a reasonable intuitive sense of the concepts of sufficiency and necessity" (Voss, Ciarrocchi, & Carretero, 2000). Participants with an interest in history and current events tended to have more confidence in their judgments, and receiving training in the meaning of the concepts of sufficiency and necessity increased this confidence.

Another key component of causal understanding is students' ideas about how to test causal explanations. Scholars have conducted very little research on this, but one study indicated considerable differences (probably age-related) in the assumptions and conceptual tools available to 10- and 14-year-olds for deciding whether one explanation is better than another (Lee, 2001).

Carretero and colleagues (1997) conducted a study in which they asked high school students and university students in their fifth year of the history and psychology programs to grade a series of "causes" related to the so-called discovery of America. The primary goal of this work was to study the characteristics and types of explanations offered by participants with little domain-specific knowledge. The results indicate that students with a higher level of domain-specific knowledge (fifth-year history students) attached significantly more importance to "causes" that enabled the contextualization of the event in a broader sociopolitical context, whereas the remaining students (adolescents from 12 to 16 years old and even adult psychology students)

gave significantly more prominence to intentional agents who participated in the event (recall the findings that children have more "concrete" understandings of historical change, associating changes with specific individuals rather than with macrosocial forces). Other authors, such as Halldén (2000), have also emphasized the importance of personal agents in the historical explanations of students.

Younger children appear less likely than adolescents to make any distinction between causal and descriptive statements, and are less likely to distinguish between the reasons leading to an action and the conditions and causal antecedents explaining the result of the action. (Actions can lead to unintended outcomes, so explaining why someone did something is not automatically explaining why the outcome event occurred.) There is also evidence that the reasons students give for an *action* and their ideas about giving causal explanations of *events* are decoupled: development in these two aspects of explanation does not necessarily go hand in hand (Lee et al., 2001).

Construction of Historical Narratives

Humans interpret their own actions and behaviors, and those of others, through narrative. Narrative thought is a widespread, and possibly innate, way of understanding social and historical reality; this makes it of particular importance in learning history (Rüsen, 2005; Straub, 2005). Several authors in the philosophy of history (e.g., Ricoeur, 1990; White, 1987) have emphasized that narratives are a powerful cultural tool for understanding history, even though the explicative and logical structure of history does not always conform to psychologically conventional narrative structure.

Narratives are not a sequence of random events; rather, they are used in an attempt to shed light on how one event causes another and the factors that affect these relationships. Nevertheless, the intuitive psychological structure of narrative tends to be more simple than reality; it does not include all of the causes that contribute to an outcome or all of the actors that participated in an event. When it comes to history, many students treat historical narratives as if they were complete and accurate copies of a fixed past. And yet professional historians think of history in very different ways; first, because the past may be described in an indefinite number of ways, and second, because our understanding of the past is dynamic, changing with subsequent events. It could not be said in 1920 that "the 1919 Treaty of Versailles sowed the seeds for Nazi rule in Germany," whereas in 1940 this description was a possible one. If they are to learn history, students must therefore understand that narratives simplify history, they tell some stories and omit others, and they mention some central characters while neglecting others who are lesser known and more anonymous (occasionally entire social groups). In short,

narratives are tools for understanding history, but are not history itself (see Figure 29.3).

Historical narratives acquire special importance in the educational context where they are often falsely equated with history itself (Halldén, 1998, 2000). Two types of concrete narratives frequently appear in the realm of education: individual narratives and national narratives (Barton & Levstik, 2004; VanSledright, 2008). Alridge (2006), in an exhaustive analysis of American textbooks, revealed that narratives regarding the great men and events that guided America toward an ideal of progress and civilization continue to be the prototypical way many historians and textbooks disseminate knowledge.

Individual narratives center on the personal lives of relevant historic figures, in comparison with narratives that focus on more abstract entities and events such as nations, economic systems, social change, civilizations, and other impersonal concepts. Examples of individual narratives are easily recalled from our own experiences in school: stories of Columbus, Julius Caesar, and Napoleon are classic examples. The classroom use of individual narrative is justified, in part, on the ground that more abstract accounts are more difficult to understand and less motivating for students. As several authors have indicated (Alridge, 2006; Barton, 2008; Lopez & Carretero, 2012), individual narratives have the power to humanize history. Students may identify with the central characters, they may imagine the thoughts and feelings that guided them, and even try to imagine how they (the student) might have acted in those situations. Through these narratives, students also learn to value the role that one individual can play in a society and contemplate the possible impact of a particular individual, but these representations do not necessarily imply historical disciplinary understanding. In some cases they could be rather simplistic and even unhistorical.

Nevertheless, although individual narratives can be highly motivating and more easily understood by students, they can also produce a series of characteristic biases that complicate the development of historical thinking. For example, they may lack causal explanations of a structural nature based on social, political, or economic factors. The impact produced by collective action is ignored. They almost unavoidably propagate the misconception that long-term processes of change can be identified with deliberate acts carried out by individuals (Barton, 1996). Often, standard histories associate a historic event with a specific historic figure (who is then seen as the cause and the principal actor of the event), thus emphasizing that individuals are causes of historical events (Rivière et al., 1998). Prominent examples in U.S. history include the association of the "discovery of America" with Christopher Columbus or the association of Abraham Lincoln with the end of slavery in the United States.

Another type of narrative found in both education and daily life is the *national narrative* (Carretero, Asensio, & Rodriguez-Moneo, 2012; Symcox & Wilschut, 2009). These narratives are found in history classrooms in

practically all countries (Barton & McCully, 2005; Carretero, 2011). This is because history education, beginning at the end of the 19th century, was intended to serve the function of consolidating national identity and building nation-states (Grever & Stuurman, 2008). This type of narrative substantially influences the way students understand and analyze information about the past. National narratives, for example, make it difficult to consider another nation's point of view, or the perspective of nondominant groups. And this interferes with the development of historical thinking, because a fundamental component of historical literacy is the ability to take into account different versions of history. Classes in national history rarely explain conflicts between interpretations; most reproduce the official version of history almost without nuance. Thus, in national history classes, students are likely to encounter an approach to history as closed, unique, and true (VanSledright, 2008).

These national narratives may become socially shared *schematic templates*. For example, in the case of the United States, two have been identified: the concept of progress and the idea of liberty (Barton & Levstik, 2004). When one possesses these schematic templates, the resistance of Native Americans to the encroaching settlements of European colonists is seen as an obstacle to achieving progress; the Vietnam War is explained as a righteous attempt to bring liberty and freedom to that country. Students are typically presented in class with a very conventional version of these national narratives; they rarely are presented with the most controversial aspects of history, and this complicates the development of more advanced historical thinking (Alridge, 2006; Grever & Stuurman, 2008).

Carretero and Bermudez (2012) have presented a theoretical analysis of the interactive processes of production-consumption of school historical narratives. Usually production processes are related to the way cultural artifacts, in this case history textbooks, include specific historical narratives (Foster & Crawford, 2006). Consumption processes have to do with the way students and people in general make sense of and appropriate those produced contents (Bermudez, 2012). Produced and consumed historical narratives do not necessarily share exactly the same features and elements, but some kind of significant interaction is expected. We identify six common features of school historical narratives, present in both the production and consumption process.

a) The establishment of the historical subject through a logical operation of exclusion-inclusion. This is to say, historical narratives are always presented in terms of a national positive "we" as opposed to a negative "they." This logical operation is critical because it determines both the main voice and the logical actions for that national subject.

b) Identification processes as a cognitive but also an affective anchor. It is likely that the national distinction "we-they" is already mastered by

children between six and eight years of age. It is very probable that this emotional feature will facilitate the formation of the nation as a concept, through a strong identification process at a very early age.

c) Frequent presence of mythical and heroic characters and motives. Myths and mythical figures, as expressed through narratives, are usually beyond time restrictions. When time and its constraints are introduced, history, as a discipline, is making its appearance. Often in the school context students cannot properly understand historical narratives because they tend to consider historical figures as almost mythical ones.

d) Search for freedom or territory as a main and common narrative theme. Students consider the process by which their own nation gained independence as a historical master narrative, emplotted as the search for freedom, independently of the multiple and complex causes that produced such a process of independence.

e) Historical school narratives contain basic moral orientations. Historical master narratives always present the nation as a moral and justified actor, providing legitimization for the nation's main acts.

f) A romantic and essentialist concept of both the nation and its nationals. This feature implies the view of the nation and its nationals as preexisting political entities, having a kind of eternal and "ontological" nature.

Teaching Implications

Caution is required here: talk of "implications of research for teaching" may be misleading, because changes in teaching and research both stemmed from the same context of changing conceptions of what is involved in "learning history." Nevertheless, the research we review in this chapter has important consequences for teaching, and the three principles set out by the U.S. *How People Learn* (HPL) project – summarizing the robust findings of cognitive research over the previous three decades – indicate why. HPL pointed first to the necessity of addressing students' prior conceptions (to avoid assimilation of what is taught to existing ideas). Second, it emphasized that cognitive competence in any area depends on a deep foundation of factual knowledge, understood and organized in a conceptual framework specific to the relevant discipline, facilitating retrieval and application. Third, it insisted on a metacognitive approach to allow students to take control of their own learning.

As we have seen, research into students' second-order ideas about the nature and status of historical knowledge suggests that learning history is not a matter of extending commonsense factual knowledge to include more past facts, or even stories and explanations. It warns teachers that history is not so simple, and gives them some guidance as to what to expect as students come to grips with specific second-order concepts, and how these concepts are likely to develop. It also offers the beginnings of a picture of how

second-order concepts can provide a metacognitive apparatus for students, so that they can ask themselves if a statement they want to make is justified by the evidence, how far their attempted explanation accounts for the facts, or whether the narrative they have constructed answers the question they have posed as well as competing stories do.

If learning history is as complex as research suggests, there is little doubt that teaching history in many schools across the world must continue to change. But this is not something that empirical studies of learning and understanding can determine on their own. Wider conceptions of the place and aims of history in society are also at stake. The research we review in this chapter has increased the tensions between policy makers, politicians, and many citizens – who see history education as a matter of strengthening the social cement – and those who, in developing more sophisticated understanding of "thinking historically," see learning history as acquiring a centrally important way of seeing the world.

If history is indeed an "unnatural act," then how students learn it and how it is taught is a serious matter, and perhaps one where only formal education can be expected to make a difference.

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30 Learning to Be Literate

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Among the defining features of an advanced modern society is widespread literacy in a print medium. And yet human beings invented writing systems only about 5,500 years ago, well after the human mind had fully evolved, suggesting that the human cognitive architecture could not have evolved specifically to enable reading and writing. Instead, the ability to read and write is based on general cognitive abilities that evolved to satisfy other purposes. For this reason, studies of literacy learning have general implications for all studies of cognition and learning. In this chapter, we review the large body of learning sciences research that examines the fundamental cognitive and social processes whereby people learn to read and write. We conclude by identifying several general implications for learning scientists.

The word *literacy* evolved from the Latin term *litteratus*, which means "being marked with letters." Thus a "literate person" is a person who can read and write text using letters. More recently, a broader and more expansive notion of a *literate performance* has been applied to fields and areas traditionally not focused solely on printed verbal texts: information literacy, media literacy (or mediacy), multimedia literacy, technological literacy, functional literacy, critical literacy, rhetorical literacy, arts literacy, ecological literacy, health literacy, statistical literacy, emotional literacy, computer literacy (or cyberacy), science literacy, mathematical literacy (or numeracy), visual literacy, digital literacy, infomedia literacy, moral literacy, dance literacy, ancient literacy, and countless other notions that refer to one's capabilities within a specific area (Tuominen, Savolainen, & Talja, 2005). This more expansive conception of literacy further posits the need for *intermediality*, the synthesis of various literacies needed to navigate the complex 21st-century world (Elleström, 2010).

In this chapter, we confine our attention to what follows from literacy's etymological origins, considering what is involved in learning how to read and write alphabetic texts. Most cognitive psychological and learning sciences research on literacy has focused on this traditional conception of literacy. Still, we hope that scholars who have extended the scope of reference to these other forms of literacy may find this research useful as well.

Writing can be defined as a one-to-one correspondence between text and speech (Woods, 2010a). This distinction is particularly helpful in drawing a distinction between writing and new definitions of literacy that describe