Historical enquiry with archaeological artefacts in primary school

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Abstract: The article contributes with knowledge of primary school pupils’ learning of historical enquiry with an intercultural perspective on the Viking age and investigates what it means for pupils to learn to interpret archaeological artefacts. Research was conducted as a Learning study with 10 and 11-year-old pupils and lessons were performed as historical enquiry with archaeological artefacts. Three questions are posed: (1) how were the pupils’ historical consciousness activated by the archaeological artefacts, (2) how did the pupils experience the task of interpreting archaeological artefacts with an intercultural perspective, and (3) what are critical aspects for this learning? Three variation patterns that activated pupils’ historical consciousness are identified, including (a) material, (b) cultural and (c) normative contrasts. Four perception categories for historical interpretation of archaeological artefacts and three critical aspects are also identified. It is suggested that it is critical for the pupils to discern (i) historicity, (ii) historical representativeness and (iii) intercultural interaction in relation to artefacts and historical narratives. The study suggests that teachers could start from archaeological artefacts to activate pupils’ historical consciousness, rather than from textbook narratives and that pupils’ perceptions should be seen as a resource in enabling historical learning. Also, historical enquiry appears to be a reasonable approach to teaching intercultural perspectives on a historical content. These findings can be valuable for history educators and researchers who engage in teaching historical enquiry with an intercultural perspective from material culture.

KEYWORDS: HISTORY TEACHING, INTERCULTURAL LEARNING, HISTORICAL ENQUIRY, SOURCING, ARCHAEOLOGICAL ARTEFACTS, PRIMARY SCHOOL, PHENOMENOGRAPHY, VARIATION THEORY, HISTORICAL CONSCIOUSNESS

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Introduction

The article addresses the question of how archaeological artefacts can contribute to pupils’ intercultural historical learning in terms of enabling the experience of history and learning historical source interpretation. Intercultural and world history education is gaining support in many parts of the world and policy-makers have argued that intercultural learning is required in order to prepare for life in multicultural societies (e.g. Byram, Barrett, Ipgrave, Jackson, & Mendez Garcia, 2009; UNESCO, 2006). Therefore, pupils should develop intercultural competencies including knowledge of cultural processes and the ability to interpret representations from other cultures (Nordgren & Johansson, 2014; Nordgren, 2017). The problem from a history teaching point of view, is that strong ethnocentric and nation-based narratives tend to stand in the way for intercultural historical learning (Rüsen, 2004a). Ethnocentric history conceives identity as master-narratives that define togetherness and, consequently, otherness, which may reinforce the idea that intercultural relations naturally result in power struggles. History teaching in primary school revolves much around its textbook narratives which tend to reproduce traditional narratives. The power of attractive narratives in teaching should not be underestimated - “a good story can mask bad history and blind pupils to alternative interpretations” - as Levstik & Barton (2015) put it. As a consequence, traditional and nation-based narratives may limit the pupils’ understandings of the dynamics of history in terms of migration and cultural encounters. The challenge of intercultural learning lies in combining historical knowledge with the normative aspect of being able to decentre, which involves lifeworld experiences, for individuals to be able to orient themselves in multicultural societies.

One way of opening up traditional narratives and create motivation for younger children can be to study history through material culture, e.g. archaeological artefacts (Arias-Ferrer & Egea-Vivancos, 2017; Levstik, Henderson, & Lee, 2014). Often source work is focused on qualifying pupils’ methodological historical thinking in terms of using sources as evidence (e.g. Wineburg, 2016) but in this study the archaeological artefacts were primarily used to enable intercultural historical learning through historical enquiry. According to Rüsen (2005), historical learning requires that pupils’ historical consciousness is activated and this study investigates how that can achieved through archaeological artefacts. Historical learning in this respect, involves historical knowledge and thinking as well as the process of relating to contemporary experiences for historical orientation. Research in history education has shown that effective teaching relies on active pupil learning of the reading, writing and thinking skills involved in historical enquiry. The assumption is that by actively investigating the past, rather than passively memorizing facts, pupils strengthen critical thinking skills and improve their ability to handle and retain content information (e.g. Reisman & McGrew, 2018). In addition, historical enquiry offers an alternative approach to the traditional textbook in history teaching (e.g. Grant, 2018).

Teaching in this study focused on the Viking age, which is an appropriate historical period as it is strongly associated with the national narrative. In Sweden, the Viking narrative is prominent (Stolare, 2017) and still influenced by the national romantic ideas.
of the 19th century (Svanberg, 2003). In primary school, the narrative is sometimes mixed with mythological or fictional representations, e.g. characters like a Viking age child or a mix of Norse mythology and historical facts. This may leave pupils without a clear idea of the differences between fiction and history. In order to design effective teaching, we need to understand how pupils can experience intercultural perspectives through artefacts and how historical interpretation can be learnt through artefacts. The article is based on data from a Learning study (Lo, 2012) and explores primary school children’s intercultural historical learning in a historical enquiry with archaeological artefacts and an intercultural perspective on the Viking age. The article is part of a larger research project and focuses on understanding the qualitative aspects of the pupils’ learning which means that it does not investigate all possible aspects of the Learning study.

Previous research

There is an international drive to expand national and regional histories through intercultural and world history education, but there is little empirical research on the implications of teaching and learning intercultural perspectives in history education (Girard & McArthur Harris, 2018, p. 272). Research confirms the persistence of Eurocentrism in courses and textbooks and this fact may hamper intercultural historical perspectives and learning (e.g. Araújo and Rodriguez Maeso, 2011; Bolgatz and Marino, 2014; Noboa, 2012; Rüsen, 2004b). On the other hand, some studies suggest that pupils may prefer global and world history perspectives over regional and national histories. Nygren (2011) found that Swedish pupils’ global orientation did not change despite the introduction of a more Eurocentric curriculum in the 1990s, and points to Sweden’s long tradition of using UNESCO standards to globalize the history curriculum and the country’s small size and international dependence as an explanation. Surprisingly in relation to Nygren’s results, Eliasson and Nordgren (2016) surveyed conditions for the intercultural aspects of history in compulsory school in Sweden and found that the historical canon is mainly ethnocentric and Eurocentric, although teachers perceive multiculturalism and diversity issues as important. Research suggests that Eurocentrism in the history classroom can be countered if anticipated. For example, Bain (2006) has shown how pupils who learned about the medieval plague through the analysis of primary sources from different regions could identify a Eurocentric bias in textbook descriptions of the Black Death. In addition, Johansson (2012) has shown how teaching strategies of pluralism, deconstruction and counter-narratives can open closed ethnocentric narratives and that the use of disciplinary tools can qualify the pupils’ ability to make interpretations in intercultural history teaching. However, Johansson concludes that applying an intercultural content of cultural encounters and migration in itself, does not guarantee that pupils experience cultural diversity, as any overarching narrative or perspective run the risk of simplifying or silencing.

Several scholars, including Ashby, Lee and Shemilt (2005), Wineburg (2016), VanSledright (2012) and Seixas (Seixas & Morton, 2012) have argued for the importance of teaching disciplinary historical thinking – i.e. to critically reflect on
historical primary sources and use these as evidence for inferences - to pupils. Results from attempts to design teaching around evidential reasoning have been mixed (e.g. Afflerbach & VanSledright, 2001; Hynd, 1999; Rouet, Britt, Mason & Perfetti, 1996; Stahl, Britton, McNish & Bosquet, 1996) but there is evidence to support the view that practicing well-structured disciplinary enquiry has a positive impact on high school and college students’ historical thinking (Reisman 2012a, 2012b; Wineburg & Reisman, 2015). It is sometimes assumed that primary school children are too young to engage in disciplined enquiry, but studies suggest that they are capable of learning historical thinking with historical evidence when appropriately supported by teaching (Barton, 1997; Foster & Yeager, 1999; Levstik & Smith, 1996; VanSledright, 2002; VanSledright & Kelly, 1998). It can be a challenge to find appropriate historical sources accessible for younger pupils. Hence, to minimize readability issues many teachers and researchers opt for images of artefacts, or occasionally, physical items like archaeological items. Research suggests that even young pupils can learn to be remarkably adept at interpreting images and physical artefacts when sources are historically contextualized and related to enquiries that the students find engaging and relevant (e.g. Arias-Ferrer & Egea-Vivancos, 2017; Davis, 2005; Levstik, Henderson, & Lee, 2014) Still, research has shown that children tend to disregard historical sources and evidence in order to maintain cohesion when constructing historical narratives (e.g. Barton, 1997; Foster & Yeager, 1999; Levstik & Smith, 1996; VanSledright & Kelly, 1998; VanSledright, 2002). Furthermore, there are recurring problems in pupils’ interpretations of historical sources. For instance, pupils tend to read sources of sensitive issues more critically whereas sources that conform with previous conceptions are not read critically (Levstik, 2001; VanSledright, 2002). Also, pupils tend to not acknowledge the need for interpretation of sources (e.g. Ashby, 2004) and often explain differences in interpretations in terms of personal bias of witnesses or incomplete information (e.g. Afflerbach & VanSledright, 2001). However, these limitations to students’ understandings of historical interpretation can be rectified in teaching if anticipated (e.g. Heyking, 2004; Levstik & Henderson, 2016).

The research referred to in the previous section represents a disciplinary approach to history which is conducted in an empirical and cognitive research tradition. In addition, there is a historical philosophical tradition which puts more focus on the concept of historical consciousness and historical meaning. Several Scandinavian researchers (e.g. Johansson, 2012; Johansson, 2014; Olofsson, 2011) have attempted to synthesize the two approaches in research on history teaching and this article should be read in the light of this ambition. The reason is that in describing and understanding the qualitative dimensions of the pupils’ intercultural historical learning both the disciplinary and the historical philosophical approaches contribute with valuable insights. Both the cognitive aspects of historical thinking and the aspects of historical meaning of
historical consciousness are important to understand the qualitative dimensions of pupils’ learning of intercultural historical perspectives through artefacts.¹

**Purpose and questions**

The purpose of the article is to empirically and qualitatively investigate 10 to 11-year-old pupils’ intercultural historical learning in terms of experiencing history and learning historical source interpretation in relation to the Viking age. The teaching design as a whole engaged the pupils in historical enquiry with archaeological artefacts and an intercultural perspective on the Viking age. This article does not cover all aspects of the Learning study. Rather, two aspect of intercultural historical learning are focused. Firstly, the learning of experiencing intercultural aspects of Viking age history, which involves the activation of the pupils’ historical consciousness through artefacts. And secondly, the learning of interpreting artefacts in a historical enquiry to gain knowledge of the Viking age with an intercultural perspective. In relation to this purpose, three research questions are posed:

1. How were the pupils’ historical consciousness activated by the archaeological artefacts?
2. How do the pupils experience the task of interpreting archaeological artefacts in a historical enquiry with an intercultural perspective?
3. What is critical to discern when interpreting archaeological artefacts in a historical enquiry with an intercultural perspective?

The first question puts the focus on the pupils’ learning of historical experience with an intercultural perspective through the artefacts, which, according to Rüsen (2005), involves the activation of historical consciousness. The second question puts the focus on the qualitative variation of pupils’ perceptions of interpreting the artefacts. The question investigates qualitatively different ways of understanding historical interpretation of archaeological artefacts. The third question puts the focus on obstacles in qualifying the pupils’ understanding of historical interpretation and investigates what the pupils need to discern to progress in learning.

**Theoretical framework**

The teaching design was informed by relevant research in history education, including Barton (1997) who identified difficulties in pupils’ learning of historical enquiry, Reisman (2012a, 2012b) who emphasized the need for proper scaffolding and Levstik, Henderson, & Lee (2014) who pointed to the possibilities in using material culture as a starting point for teaching. E.g. Arabic coin replicas provided pupils with a

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¹ The Swedish history curriculum explicitly combines these aspects of historical consciousness: “The pupils’ historical consciousness develops as they learn about the past, while they gain insight into scientific methods and can reflect on how their interpretations are coloured by their own experiences and values” (Skolverket, 2017, p. 6).
tactile and physical experience in relation to archaeological artefacts (cf. Pye, 2008). Teaching built on established classroom practices like reading activities, group-work, whole-class discussion and work-sheets in order to establish a predictable and repeatable sequence (Stodolsky, 1998). Nordgren & Johansson’s (2014) framework for intercultural historical learning guided the design of the research lessons. A number of aspects of intercultural competence were chosen as aims for the enquiry, including knowledge of social and cultural processes in terms of cultural encounters and migration in the Viking age, and the ability to interpret material representations in the form of archaeological artefacts from different cultures.

In addition to research in disciplinary history teaching and learning, Rüsen’s (2005) theoretical paradigm of narrative competence has been used as a theoretical and analytical framework. Rüsen’s view of historical learning as attaining narrative competence firstly involves to experience history, i.e. to perceive specific temporal phenomena, secondly to interpret history, i.e. to connect perceived phenomena narratively using temporal tools and thirdly orientation in relation to history, i.e. to develop temporal perspectives to guide actions and contribute identity formation in diachronic contexts. This research focuses on two of these aspects, namely to experience history and to interpret history.

Historical experience, according to Rüsen (2005), puts the focus on the impulse to create historical meaning and this desire is often pre-narrative, i.e. it is initiated in a non-narrative form as an experience of a disruption or discontinuity between the past and the present. The rupture makes the individual turn to the past with, implicit or explicit, historical questions in a desire to understand, and hence the individual’s historical consciousness is activated. This sparks the intention to historicize the past, as experienced in the present, through the process of historical interpretation. Thus, for historical learning to occur the pupils’ historical consciousness need to be activated and it is important to practice their ability to experience history. The concept of historical consciousness commonly refers to human beings’ natural need for temporal orientation (Rüsen, 2004b; Seixas, 2006) and the awareness that human beings and all our institutions and forms exist in time, that we have an origin and a future (Jeismann, 1992). In an often used formulation, which is reverberated in the Swedish history curriculum, historical consciousness comprises the connection between the past, the present and future prospects. In this research, the concept of historical consciousness functions as the link between historical knowledge and the normative aspects of intercultural learning, which involve lifeworld experiences. Intercultural historical perspectives include knowledge of the past, but also experiences that enable individuals to orient themselves in multicultural societies.

In keeping with Rüsen (2005), historical interpretation marks the transition between the pre-narrative and the narrative function in historical learning. Interpretative work on individual artefacts can be non-narrative and function as an aid in historical narrative construction. The interpretation of artefacts can be seen as an exercise in dealing rationally with historical experience. Historical interpretation includes explanations, i.e. to order and connect facts over a course of time. It is a matter of connecting events in sensible narratives where actors’ actions get a rational orientation.
As a final component in the theoretical framework, variation theory (Marton, 2015) was used to identify variation patterns in teaching and critical aspects for the pupils’ learning (see figure 2). Variation theory assumes that human experience consists of the simultaneous discernment of necessary aspects of a phenomenon and that this act of discernment requires variation. Phenomena are discerned when certain aspects vary against a background of invariant aspects. Thus, all human experience requires variation. Each learning object consists of a set of aspects that need to be discerned if learning is to occur (Marton & Pong, 2005). Some aspects are considered critical for an object to be experienced in a certain way. These are referred to as critical aspects (CA) and point to specific difficulties for the pupils. The degree to which pupils are able to discern CA can be used to estimate the degree of proficiency in relation to the learning object.

**Methodology**

This research is framed as educational design-research (Plomp, 2013) and was conducted as a Learning study (LS). LS is a theory-informed, interventionist, iterative and collaborative research approach that focuses on learning objects - how they are constituted and how they can be taught, in order to improve teaching practices (Lo, 2012; Marton, 2015). The methodology section describes circumstances for the whole Learning study, although the article only deals with parts of the data that was collected in relation to the stated purpose.

**Setting**

Three schools in Stockholm, Sweden, were involved in the research; Alfa, Bravo and Charlie. School Alfa was located in the suburbs, considered to have a low socioeconomic status, a large proportion of immigrant pupils and challenges when it comes to the pupils’ language skills. School Bravo was on the other side of the spectrum in the centre of the city, considered to have a high socioeconomic status, few immigrant pupils and high levels of language skills. School Charlie was positioned in between the other two and could be considered to represent a large, average city school with a great variation of pupils. The research project was conducted over a full school year with weekly two-hour-meetings to plan and evaluate the project. Comparing pupils’ performance between the schools is not on the agenda for this article, but the broad spectrum represented by the schools provides an empirical width suitable for a phenomenographic study.

**Participants**

56 pupils from three classes (one class from each school; Alfa n=20, Bravo n=10, Charlie n=26), in grades 4 and 5 (10 and 11-year-old children) were involved in the project. The pupils represented a convenience sample (e.g. Denscombe, 2014) as classes were selected and taught by the involved teachers. The pupils had studied history for a
school year or less with a focus on prehistorical times and antiquity and had mainly worked with history textbooks. The research project was designed and carried out by a group consisting of one researcher (the author) and three experienced teachers. The three teachers were in service at each of the three schools at the time of the project and were asked by the author to participate in the study after having taken a professional development course in history teaching. The research group collaborated in designing, performing and evaluating a series of enquiry-based history lessons. The role of the teachers was primarily to contribute with the practitioners’ perspectives and design and perform teaching, whereas the primary role of the researcher was to contribute with relevant research, theory and analytical tools.

**Procedures**

The research group defined the learning object and staged a pre-test to explore the pupils’ pre-conceptions. Based on prior knowledge, the pupils were asked why large quantities of Viking age Arabic coins have been found around the island of Gotland. Pupils were provided with photos of archaeological artefacts that were used to construct an answer. Based on the analysis of the pre-test research lessons and tasks were designed. The project was conducted as a historical enquiry (e.g. Levstik & Thornton, 2018; Reisman & McGrew, 2018) and lessons were documented and analysed in terms of pupils’ perceptions of the task and learning. In the enquiry, the pupils addressed the question from the pre-test. Pupils practiced historical interpretation and used Arabic coin replicas and photos of other Viking age artefacts as evidence for explanations and inferences. A post-test, separate from the research lessons, was devised with a similar, but different, enquiry question: how come Chinese silk has been found in the Viking town of Birka?

**Data collection**

Data was collected in pre- and post-tests where pupils responded to a historical enquiry question and provided answers in a combination of written answers and references to photos of artefacts that they could choose from. The decision to use photos was made in relation to the children’s young age and the fact that it would be hard for them to provide extensive written answers (cf. Barton, 2015). The tests focused on a central content in the history course and the enquiry question was chosen as it represents a current, unresolved and intercultural issue. The pupils’ answers included text sections, sketches, connecting lines etc. in combination. The main body of data, however, was collected during the research lessons. Teachers’ talk and pupils’ responses and conversations were audio recorded and transcribed. Transcriptions include the pupils’ group work with the archaeological artefacts. Finally, pupils’ notes on worksheets used to document their analysis of the artefacts were used as data. Episodes in the transcribed data that were found relevant in relation to the research questions were identified and selected for further analysis.
Data analysis

Phenomenography was used to categorize pupils’ perceptions of the enquiry task and to create a sample space (figure 1) which consists of four qualitatively different perception categories. Phenomenography is an abductive, empirical and qualitative research approach that aims to explore and describe people’s ways of perceiving the world (Marton, 2015). The aim is to survey the variation of perceptions for a certain phenomenon for a certain group of individuals. The analytical procedure included the following steps (Dahlgren & Johansson, 2015): a) condensation – to identify significant sections of the data, b) comparison – identifying similarities and differences in the data, c) categorization – data is grouped into categories based on differences and similarities d) contrasting – compare and test categories in relation to each other and the data.

Ideally, the descriptive categories are exclusive, i.e. not overlapping with other categories and exhaustive in relation to the data. The phenomenographic analysis was performed by the author and the perception categories were tested individually by each participating teacher on class data to verify the validity of the sample space.

Phenomenography has been theorized into a learning theory in the form of variation theory (Lo, 2012; Marton & Booth, 1997; Marton, 2015) which was used to identify variation patterns in terms of contrasts and to identify critical aspects (CA) from the sample space. The analytical process of identifying perception categories with phenomenography was empirical whereas the process of identifying critical aspects with variation theory was mainly theoretical. The CA were deduced from the sample space and identified and described as the theoretical difference between the four perception categories. Thus, denoting that which has to be discerned in order to experience a phenomenon in a more complex manner. Consequently, CA are not found explicitly in the empirical data but deduced from the empirically based categories of perceptions.

In the findings section the analysis will be presented in three steps. Firstly, variation patterns in terms of contrasts will be presented to investigate how pupils experience history through artefacts. Secondly, based on the phenomenographic analysis a sample space of pupils’ perceptions of historical interpretation will be presented with the purpose of describing the variation of perceptions among pupils. The full analytical process cannot be referred in the article, but excerpts from the data will be provided to support the findings. And thirdly, based on the theoretical analysis of the sample space of perceptions of historical interpretation three tentative CA will be presented. The first step covers the aspect of experiencing history in Rüsen’s narrative competence (2005) and the second and third steps cover the aspect interpreting history.

Findings

Experiencing history through archaeological artefacts

This section addresses the question of how the pupils’ historical consciousness were activated by the archaeological artefacts, in the sense that exploring the artefact made
the pupils turn to the past with implicit or explicit historical questions. In accordance with Rüsen’s (2005) narrative competence paradigm, pupils must experience history, i.e. perceive a phenomenon as historical, before they can start to learn to interpret history. To experience a phenomenon as historical involves the activation of an individual’s historical consciousness, i.e. the mental process that involves temporal orientation (Rüsen, 2004b; Seixas 2006). Hence, for historical learning to begin, the pupils’ historical consciousness need to be engaged. Episodes where pupils explored artefacts were investigated with variation theory to identify variation patterns in relation to the artefacts that engaged the pupils’ temporal orientation. Three variation patterns, based on contrasts between the past and the present, have been found. These patterns can be described as (a) material, (b) cultural and (c) normative contrasts.

The material contrast pattern (a) occurred when the pupils explored the physical artefacts like coin replicas, but also in relation to photos of artefacts. Material contrasts put the focus on physical differences and similarities between historical and contemporary artefacts. The enquiry was introduced by showing modern Swedish coins and the pupils discussed how they were made, what materials they were made from, how they are used, stored etc. These were intentionally contrasted to Arabic coins dating from the Viking age. Pupils were attentive to differences in appearance, materials, signs and symbols, and questions were raised over writings, materials, values, methods for manufacturing and so on. The pupils explored modern replicas of Arabic coins so they could compare them physically to their modern Swedish equivalents. Interestingly, pupils were observant to differences between the replica and the original and asked what the replicas could tell us about the past. Signs of an activated historical consciousness in relation to material differences can be seen in utterances like: “They are really thin, but they probably didn’t have machines to make them”, “Are there silver in our coins today” or “There are numbers on the Swedish coins, but not on these, maybe they spelled the numbers out”. Material contrasts appear to have been particularly powerful in relation to artefacts that have modern equivalents like coins, ships or manuscripts.

The pattern of cultural contrasts (b) contains both intra- and intercultural differences. The pattern puts the focus on perceived differences in terms of language, writing, cultural contexts etc. For instance, pupils reflected over differences in the Swedish language: “Didn’t he become dead”, “That’s old-Swedish and it means that he wasn’t killed but died from an illness”. However, most differences were noted as contrasts between Scandinavian and Arabic contexts: “Yes, I suppose it is written in Arabic, maybe the Arabs don’t write like this anymore” or (to an Arabic speaking friend) “Can you read this”? “No, but it is in Arabic and this sign means Allah”. Arabic coins were intentionally selected as the starting point to enable intercultural historical learning, but they also served as igniters for some of the immigrant pupils: “This tells me that there were Arabic coins buried here, and that is important to me because I’m from Iraq”.

The normative contrasts pattern (c) puts the focus on differences in terms of norms and values. Sometimes these differences appeared as presentist judgments or anachronistic conclusions but most often they appeared as mere reflections. One artefact that evoked this contrast was a ring with an Arabic inscription found in Scandinavia, probably because a finger ring has personal and normative connotations to many pupils.
For instance, the pupils discussed the ring in normative terms as: “A sign of affection”, “To show love”, “As a token of peace and goodness” or “As a sign of marriage”. Normative contrasts were mixed with cultural contrasts for example in discussing who started wars or were more violent: “I think they started the war in the Arabic countries; or they probably stole the money and went home”. Pupils also noted aesthetic contrasts: “My theory is that Baghdad was so nice, but it was really boring up here” or “They seem to have been more well-developed than us because they had nicer houses”.

The assumption that archaeological artefacts would be powerful in activating the pupils’ historical consciousness, and thereby initiating historical learning, finds support in the data. Numerous instances from the continued work throughout the enquiry show how the pupils’ historical consciousness were re-activated by the artefacts. Needless to say, there were instances where the artefacts only engaged the pupils’ fictitious imagination for instance, which did not conduce to historical interpretations. In those instances, it was clear that the pupils did not yet perceive the experienced phenomenon as historical. For example, initially several pupils perceived the Arabic coins as a treasure - associated with pirates, adventures, heroes etc. When this perception remained, pupils were hampered in their historical interpretations. However, the artefact helped the pupils verbalize their experiences which made ahistorical interpretations visible for the teachers, who in turn could address those perceptions.

**Interpreting history through archaeological artefacts**

Using phenomenography, the following section addresses the question of how the pupils experienced the task of interpreting archaeological artefacts in the historical enquiry with an intercultural perspective. The analysis shows that pupils’ perceptions can be grouped into four qualitatively different categories (figure 1). Note that utterances were separated from individual pupils in the analytical process, so the categories are not comprised of individual pupils. Rather, the categories represent the qualitative range and variation of experiences among all pupils. The phenomenon that pupils experienced is assumed to be the task of using archaeological artefacts as sources in a historical enquiry with an intercultural perspective, so the sample space relates to this. The perception categories are ordered in a hierarchic manner starting from less complex categories at the bottom to categories of increasing complexity at the top indicating a progression in complexity of perceptions.
Category 1: Literal interpretations in fictitious narratives

In the least complex category utterances reflect the experience of the task as the literal interpretation of sources in a fictitious or imaginary narrative. Narratives might include mythological element like monsters, supernatural creatures or heroes. Perception categories contain two elements; (a) artefact interpretation and (b) narrative quality. In category 1, artefact interpretation was literal, i.e. portrayed persons, ships etc. represented specific and identifiable historical persons or items. When studying a rune stone depicting a ship the pupils’ understanding could be that the rune master carved the ship on the stone in real time as it sailed past. E.g.: “In this image they are on their way to hide the coins in Gotland." In terms of quality, narratives were fictitious, i.e. fairy tales rather than history. E.g. one pupil made the literal interpretation of a sea monster on a reproduced map and gave it a role in sinking the seafarers’ ship:

Now they are walking with their camels in the desert, they have no ships because they had run into a sea monster and it ate the ships.

Not all pupils went this far but it was common to make up stories where the bits and pieces fell into place conveniently. This required some degree of fictionalization. Typically, literal interpretation of artefacts and fictitious narratives coincided in pupils’ perceptions. The following excerpt from a pupil’s pre-test reflects a perception in this category:
They were going to take a lot of coins and sell in what is now called Lithuania. So, they transported the coins there on their camels. But when they arrived the camels escaped with the coins that they carried on their backs, and the camels shook off the bags with the coins in the water. There all coins were transported by the current to Gotland where they were washed ashore.

The pupil made up a story containing the ingredients that were available - a number of images of historical artefacts including Arabic coins and a historical depiction of a caravan of camels. Perceptions in this category also appeared in pupils’ conversations, especially when pushed to conclude they relapsed to fictitious narratives to maintain cohesion. They put the focus on identified individuals and items and cooked up a story that made sense. In the following excerpt the pupils had worked with Arabic coins, a ring with an Arabic inscription and a tale from a rune stone about Thorsten, a Viking:

Teacher: This is your final writing for today so you will have to finish your work tomorrow.

Pupil (P)1: The hypothesis was that Allah... she was on a trading trip to Sweden.

P2: Yes.

P1: Allah died during a trading trip and... was buried with her ring and her money.

P3: So, maybe Thorsten was her husband?

P4: But what about Gunnar and Bjorn?

P4: But he could have been married to her and then they fell in love during the trip when he got there?

The pupils reverted to literal interpretations of the artefacts to make the pieces fit, and the literal and the fictitious aspects coincided in the same perception.

Category 2: Literal interpretations in historical narratives about events

In the second category utterances reflect the experience as literal source interpretation in a historical narrative about one or several, but separated, events. In terms of narrative quality experiences reflect the discernment of historicity of constructed narratives in relation to artefacts, but interpretations of individual artefacts are still mainly literal. Hence, the literal interpretation of artefacts remains, while the narrative quality, the historicity of the narrative, changes. Many pupils’ narratives were largely historical i.e. reasonably realistic in relation to the period and general human conditions. Focus was on individual, and mainly separated, events that were connected in a linear fashion. E.g. “First, the Arabs came to the boat to go on a journey. Then, the Arabic people went to look for the coins. Finally, they arrived in an island.” The tendency to build narratives around specific and disconnected events is sometimes referred to as eventification. A common perception among the pupils was that silver coins found in a specific site came there in connection to one event like a treasure being buried. The following excerpt from a pupil’s pre-test reflects a perception in the second category:
In the Viking age, there were pirates or traders who travelled across Europe to Baghdad. They got hold of the coins and returned to Sweden. They lived in Gotland. They divided the treasure between them and went back to their families. A few hundred years later the most horrific event in the history of Gotland occurred. The Danish invaded. When they plundered the villages, someone hid the coins by burying them in the ground. Since then, they have been buried until someone dug and found them.

The narrative above connects a number of literal interpretations of artefacts, referring to a specific group of people and the coins as one treasure, and a series of reasonably realistic events in a narrative which is largely historical. Literal interpretation of artefacts and eventification of historical narratives can be seen in pupils’ conversations as well. In the following excerpt the pupils had worked with a written Arabic source where traveller Ibn Fadlan reports from an encounter with Scandinavians on the shores of the Volga:

Pupil (P)1: (Reads) Around 920 Arab traveller Ibn Fadlan described how he encountered Scandinavians by the Volga river in Russia. In Iran, a manuscript from the 13th century was found that contains Ibn Fadlan’s travelling account.

P2: He met with Scandinavians. It was there (pointing to map).

P3: But maybe they met others as well? They should have stopped too.

P4: But then they must have met somewhere else.

P2: Maybe the Vikings went to Gotland and then...

P3: But maybe they should have stopped about here (pointing). Maybe they cooked.

P1: Maybe they met here (pointing).

P2: Yes, maybe they met here (pointing).

P4: Well, they did use boats!

P3: But then they met here. They were the Vikings.

The pupils made the literal interpretation that one historical person, Ibn Fadlan, met with a certain group Vikings and then the pupils tried to track their movements across the map. In conversations like these, history was reduced to events and the pupils failed to identify the continuity of cultural encounters. Although pupils’ narratives were based on sensible historical interpretations they were characterized by disconnected events, one occurring after the other. Perceptions in the second category were the most common perceptions in the pre-test.

**Category 3: Representative interpretations in continuous narratives**

In the third category utterances reflect the experience as the representative interpretation of sources in a continuous and cohesive historical narrative. In terms of artefact interpretation single artefacts can represent more than themselves - even large historical phenomena. In terms of narrative quality, the perception reflects an understanding that history is made up of parallel processes of continuous change. E.g.
pupils’ narratives connected and explained the occurrence of Arabic coins in Scandinavia with continuous trading activities. A ship on a rune stone did not just represent a specific ship but the phenomenon of shipbuilding and maritime transportation. E.g.: “The Vikings traded using ships and they could also travel with them”. The following excerpt from a pupil’s post-test reflected a perception in the third category:

“The Vikings traded and exchanged many things like clothes, jewellery, weapons and so on. The Vikings had strong ships but they could not go all the way to China to plunder because it was too far and too difficult. The silk had been traded several times before it ended up in Birka.

The perception reflects the understanding that trade was a continuous process of change and that artefacts can represent more than a specific object. A set of scales was not just an item that belonged to a specific individual but could represent the phenomenon of trade using noble metals like silver. The excerpt reflects the insight that trade is not a long journey made by one group of tradesmen but rather a chain of continuous and interconnected transactions and exchanges between people. The representative interpretation of artefacts enabled the perception of history as a continuous process which is reflected in the pupils’ conversations where they helped each other discern the representativeness of artefacts and the continuity of trade. In the following excerpt pupils discussed the nature of local trade in relation to regional trade based on the inscriptions on a rune stone:

Pupil (P)1: Let’s think like this. Because [the coins] were found fairly close to each other, maybe they traded something within the country as well? Because not all trade is done abroad.

P2: It may also be that they came together. Stockholm exchanged silver coins with Upland.

P3: It may also be that Upland and Stockholm travelled far away to Upland and payed with these coins? [...]  

P1: Maybe you mean that the people from Stockholm received goods from Baghdad and then went to Uppsala?

P3: Yes [...]  

P4: And then they made a rune stone on the way?  

P1: No, they’ve found silver coins in Upland and in Gotland and in various places around Sweden. It may be that they went there to trade their coins, and then the other places traded with each other as well.

Although the pupils had not come far in constructing a historical narrative, they did not make a literal interpretation of the inscription but considered trade as a recurring phenomenon. Pupils could discern historical actors based on sources but they often had a one-sided perspective, e.g. that Vikings were active traders whereas Arabs were passive.
**Category 4: Representative interpretations in intercultural narratives with rational actors**

In the most complex category utterances reflect the experience as the representative interpretation of sources in an intercultural narrative with rational actors. Narratives include the intercultural perspective on activities with several rational actors who interacted in trading activities. Archaeological artefacts had the potential of making historical actors visible to younger pupils, as an artefact had to be made and used by a specific person. Pupils also realized that the manufacturing of an object was connected to specific intentions or motives. E.g. pupils connected the manufacturing of coins with the desire to trade. The intercultural aspect added to these understandings the insight that historical processes require several rational actors who had their motives and interacted in a dynamic process that resulted in cultural encounters. The following excerpt from a pupil’s post-test reflects a narrative perception in the most complex category:

*I think people from China went by boat/hiked some distance and sold silk. Then Arabs bought silk and then the silk came to Sweden through trade with other countries. They might have travelled like this (referring to map). They probably did this to earn money, because silk was fairly expensive. The reason why people bought silk, I think, was because it was smooth and because they thought it was beautiful. I think this because we have learned that they hiked/went by boat to other countries. Historical evidence: Boats and rune stones have been found where you can see this.*

This brief narrative includes three identified groups of actors and at least two rational motives for their actions; economy and aesthetics. Also, the extract includes a direct reference to evidence. The process of discerning the intercultural perspective with rational historical actors can be seen in pupils’ conversations as well. In the following excerpt, historical actors became visible when pupils discussed the motives for trade and cultural encounters based on their analysis of a tradesman’s bronze scale and additional weights with Arabic inscriptions (previously they had worked with a rune stone):

*Pupil (P)1: In Scandinavia, you traded goods against other goods, but in the Arabic regions they bought and sold with silver coins.*

*P2: Yes, they probably bought from Sweden.*

*P3: Yes, Arabs bought things from Sweden.*

*P1: Or maybe, we bought things from them?*

*P3: But we did come to the conclusion that they travelled over the Russian rivers.*

*P2: But that might just as well have been the Swedes. [...]*

*P3: The chance was probably bigger that the Arabs came to us. Because it was so nice there, so I think there were some Arabs. [...]*

*P1: But listen, I’m still a bit suspicious about what is going on. I think the rune stone the Vikings and Baghdad are connected in some way.*
P2: *Yes, we are almost certain about that, but it still strange if Swedes went to Baghdad because we were not as well developed.*

In the conversation the pupils identified historical actors through the artefacts used in the task; Arabic coins, a set of scales, a weight and a rune stone. They had connected the objects to trade and at this point they understood that trading activities required a buyer and a seller, goods and motives to trade. The pupils had some knowledge of cultural differences between the Scandinavian and Arabic regions and this contrast was explored as they looked for reasonable motives. Later in the conversation, they identified the range of different goods, using a map with symbols for various commodities, in the different regions as a reason to trade.

**Critical aspects of source interpretation**

According to variation theory learning is a matter of discernment. Consequently, a learner must be able to discern and consider certain aspects of an object of learning simultaneously, in order to have knowledge about it. The aspects that the learner must be able to discern, but is not yet able to, are critical for his/her learning and these are referred to as critical aspects (CA) (Marton, 2015). CA are made up of a number of critical features, some of which are relevant for the object of learning whereas others are irrelevant. Hence, some features should be discerned and regarded, whereas others should be discerned and intentionally disregarded. CA and critical features point to certain difficulties and these are specific for a particular group of pupils. CA are not found explicitly in the empirical data but are deduced from the sample space of perceptions. Hence, the process of identifying CA with variation theory is mainly theoretical. Still, they are empirically grounded and must be searched for (Marton, 2015). Critical aspects are identified as the theoretical difference between perception categories, accordingly denoting what has to be discerned in order to experience a phenomenon in a more complex manner. To have knowledge about CA is decidedly an advantage in order to design effective teaching, but they can also function to estimate pupils’ proficiency in relation to the object of learning. In this study, three CA (figure 2) have been identified. These can be termed as (1) historicity, (2) historical representativeness, and (3) intercultural interaction, in ascending order.
HISTORICAL ENQUIRY WITH ARCHAEOLOGICAL ARTEFACTS IN PRIMARY SCHOOL
Patrik Johansson

FIGURE 2.
Aspects of the learning object that are critical for pupils to discern to be able to interpret archaeological artefacts in a historical enquiry with an intercultural perspective.

CA 1: Discerning historicity

The qualitative difference between categories 1 and 2 in the sample space regards the discernment of historicity, i.e. the historical actuality of persons and events. The CA has two critical features, one pertaining to artefact historicity and the other to narrative quality in relation to the enquiry question. The artefact historicity feature has two dichotomic values. The first value is the idea of mythical artefacts - artefacts with otherworldly qualities that were not man-made – that should be disregarded. An artefact with a religious connotation could be understood to have been created by some deity or a sword by some wizard. The second value, that must be discerned, is that all artefacts were created by humans in a particular context for particular reasons. The second narrative quality feature in relation to the enquiry question also has two dichotomic values. The value that should be disregarded is the idea of fictitious or mythological narratives and the value that must be discerned is that narratives reflect events that happened in the real world. The two features of this critical aspects are relational, but the enquiry started from the artefacts so the common trajectory was to move from discerning the proper value of artefact interpretation to discerning the relevant value of narrative quality.

CA 2: Discerning historical representativeness and continuity

The qualitative difference between categories 2 and 3 in the sample space regards the discernment of representativeness and continuity, i.e. that historical artefacts and narratives can represent more than themselves and extend beyond their own particularity. Again, the CA has two critical features deriving from artefact interpretation and narrative quality. The artefact interpretation feature has two values.
Firstly, literal interpretation of artefacts and secondly, representative interpretation of artefacts. Here, both values should be separated and considered. An artefact like the rune stone could represent itself, e.g. specific individuals or events that are represented in the stone carvings, as well as wider historical phenomena like migration, beliefs or trade. The other feature concerns narrative quality and the representativeness of historical narratives and phenomena understood as continuous change. Pupils often understand history as a series of events disregarding the continuity of change. The narrative quality feature contains two values. The first value is the understanding of history as separate events and the other of history as continuous change. Both values should be separated and regarded. Sometimes it is relevant to describe history in terms of events, whereas other phenomena, like migration or trade, are continuous phenomena.

CA 3: Discerning intercultural interaction between rational actors

The qualitative difference between categories 3 and 4 in the sample space regards the discernment of intercultural agency, i.e. historical actors’, from different cultures, power to act and interact rationally - each with their motives. The CA has two critical features deriving from artefact interpretation and narrative quality but here they tend to fuse. Both features share two values. Firstly, the identification of rational motives in relation to the manufacturing of material objects and secondly, the intercultural aspect of the artefact as an understanding that it was encapsulated in a cultural context containing rational actors with different motives. In terms of rational motives, an Arabic coin was made in Baghdad for trading purposes as well as for religious purposes as the Islamic creed is engraved. In terms of the intercultural aspect, an Arabic coin could be used and eventually buried for other purposes in Scandinavia, like silver value. Arabic coins in Scandinavian soil is the result of historical cultural encounters. These features apply both on the level of individual artefacts and the level of narratives referring to wider historical phenomena.

Summary and discussion

Material culture, in the form of archaeological artefacts, was used as the starting point for teaching historical enquiry with an intercultural perspective on the Viking age. The assumption was that material artefacts could be effective in activating the pupils’ historical consciousness (Rüsen, 2005) and provide an alternative approach to the textbook and open traditionally ethnocentric narratives to intercultural perspectives (Nordgren & Johansson, 2015). The design built on the assumption that material culture could have a particular power in creating engaged understanding in history and support intercultural and disciplinary learning simultaneously (Arias-Ferrer & Egea-Vivancos, 2017; Levstik, Henderson & Lee, 2014).

The first research question relates to the learning of historical experience and it investigates how the pupils’ historical consciousness were activated by the archaeological artefacts. This is important because, according to Rüsen (2005), the
learner has to perceive phenomena as historical in order for historical learning to commence. The concept of historical consciousness helps us understand the link between historical knowledge and the normative aspects of intercultural learning. The analysis with variation theory revealed three variation patterns based on contrasts between the past and the present that engaged the pupils’ temporal awareness: (a) material, (b) cultural and (c) normative contrasts. This is consistent with Rüsen (2005), who points to contrasts between the past and the present in terms of discontinuities or disruptions in the temporal web as the starting point of historical learning. The data indicates that archaeological artefacts could be effective in activating the pupils’ historical consciousness, which occurred as differences between the past and the present were experienced. Material and cultural contrasts were equally effective in this sense and the pupils’ attention to detail enhanced the experience. Artefacts that had modern equivalents were chosen specifically to enable pupils to use prior experience in interpretations. Cultural contrasts appear to have been particularly powerful in relation to intercultural perspectives.

The second research question investigates how the pupils experienced the task of interpreting archaeological artefacts in a historical enquiry with an intercultural perspective, and the analysis revealed four perception categories (figure 1). In addition, the third research question investigates what was critical for the pupils to discern in order to progress between the perception categories and the analysis identified three critical aspects (CA) (figure 2). The least complex perception category reflects an unclear understanding of history as artefact interpretations were literal and narratives fictitious, i.e. ahistorical. Therefore, it was critical for the pupils to discern the historicity of artefacts and connected narratives, i.e. to be able to understand narratives as historical in relation to available sources and separate these from fictitious interpretations. This discernment was about thinking of the sources and people as belonging to the real world and narratives as realistic. To enable pupils to separate mythical and fictitious narratives from history is an important aim for history teaching for the age group. The question can be raised if the separation of these aspects could be hampered by the fact that Norse mythology is sometimes mixed with the history of the Vikings in primary school in Sweden.

The second perception category reflects an understanding where historicity was discerned and the task was experienced as the literal interpretation of sources in a historical narrative about one or several events. The move in progression from fictitious to historical narratives appears to have been levered by the artefacts as they helped the pupils to discern the historical aspect of the narratives. Although artefacts were still mainly interpreted literally it was easier for the pupils to historicize the material objects than the narratives. Pupils could discern the historicity of artefacts and narratives but perceptions still reflected an incomplete understanding that artefacts can represent larger phenomena. Therefore, it was critical to discern the representativeness of sources and narratives, i.e. that historical artefacts and narratives can extend beyond their own particularity. Representativeness in relation to historical narratives, refers to the continuity of historical phenomena. This was an abstract realization for the pupils, but crucial to move beyond the eventification of history.
The third perception category reflects an understanding where representativeness was discerned and the task was experienced as the representative interpretation of sources in a largely continuous and cohesive historical narrative. Representative artefact interpretation enabled the perception of history as a continuous process of activities and changes. Yet, perceptions of historical actors’ motives were still unclear and the intercultural quality of the narrative was still missing. If present, human actions were mainly unidirectional but most of the time “things just happened”. Therefore, it was critical to discern historical agency and intercultural rationality, i.e. that historical actors from different cultures interacted, each with their motives, resulting in cultural encounters. In relation to the Viking age, this involved the intercultural aspect of seeing both Scandinavian and Arabs as active and rational in trading activities.

The fourth and most complex perception category reflects an understanding where intercultural agency is discerned and the task was experienced as the representative interpretation of sources in an intercultural narrative with rational actors. Archaeological artefacts that originated from different cultural contexts but related to the same historical phenomena helped in making visible agency and the artefacts enabled the pupils to identify Scandinavians and Arabs as active in the trade - each with their motives. This supports previous research (e.g. Dulberg, 2005; Levstik, Henderson, & Lee, 2014) which suggests that primary source materials and material culture can be particularly powerful in promoting the discernment of historical agency. Two primary aspects of intercultural learning were considered in the teaching design - knowledge of cultural encounters and migration, and the ability to interpret archaeological artefacts from different cultures. These aspects were primarily established in the final perception category and represent the relatively most qualified level of historical interpretation. Presumably, this relatively complex perception which connects historical knowledge with the normative aspects of the intercultural perspective would be a good starting point for developing the abilities associated with being able to orient oneself in a multicultural society.

These findings confirm that young pupils are capable of engaging in historical enquiry and learn historical interpretation with sufficient scaffolding (Barton, 1997; Fillpot, 2012; Foster & Yeager, 1999; Levstik & Smith, 1996; Nokes, 2014; VanSledright & Kelly, 1998; VanSledright, 2002). Also, material culture can help pupils in discerning historical agency with an intercultural perspective (Levstik, Henderson & Lee, 2014). By the end of the enquiry, pupils were quite competent in interpreting individual archaeological artefacts, spotting details, paying attention to factual information and connecting facts to artefacts. As expected, they were initially hindered by the lack of contextual historical and geographical knowledge, but the pupils’ frame of reference expanded as they proceeded through the enquiry.

The theoretical perspectives of historical consciousness and variation theory adds to the understanding of the learning of source interpretation. Drawing on these theories, higher categories of perceptions in the sample space do not necessarily replace lower categories in terms of perceptions, which is often the case with some hierarchies of historical understanding (cf. Lee & Shemilt, 2004; Shemilt, 1987). Rather, learning is a matter of a more differentiated seeing. To be able to perceive the phenomenon in the
fourth and most complex category means that the pupils can discern and separate all aspects in the previous categories – but it does not mean that they forget previous perceptions. Instead, the pupils use the perceptions in the lower categories as a contrast in order to discern the more complex features of the higher categories. In relation to previous research in the field of history education, the categories of perceptions, and the difficulties that the pupils experience, may not be very surprising (cf. Lee, 2005). However, the concept of historical consciousness helps us understand how the pupils’ knowing in relation to interpreting history through artefacts can be qualified. The sample space informs us how less complex perceptions are necessary to progress to more complex understandings. Hence, the simpler perceptions can be seen as a resource for learning and teaching, rather than as a problem that should be overcome and forgotten. For instance, mythical or fictitious narratives can be contrasted to historical narratives to enable historical learning. Hence, the pupils’ intuitive perceptions of an archaeological artefact as being mythological can be used as a resource for historical learning, by contrasting it to a historical interpretation.

The ability to refer explicitly to historical evidence is not part of the Swedish curriculum for years 4 and 5 and it is probably unreasonable to expect 10 and 11-year-old primary school children to fully grasp the connection between enquiry, evidence and historical explanations and be able to independently construct coherent historical narratives. However, these findings suggest that it is reasonable to expect pupils to grasp the idea of historical continuity in relation to the more intuitive identification of separate events and to identify and consider agency in history, including the intercultural aspect of agency. The study suggests that teachers could consider starting from historical artefacts to activate pupils’ historical consciousness, rather than from textbook narratives and that pupils’ perceptions should be seen as a resource in enabling historical learning. Finally, historical enquiry appears to be a reasonable approach to teaching intercultural perspectives on a historical content, even in primary school.

References


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