Fostering Students’ Appraisals of the Relevance of History by Comparing Analogous Cases of an Enduring Human Issue: A Quasi-Experimental Study

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Fostering Students’ Appraisals of the Relevance of History by Comparing Analogous Cases of an Enduring Human Issue: A Quasi-Experimental Study

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ABSTRACT
Although history standards generally aim at developing historical consciousness among secondary school students, there is not much research-based knowledge to support making connections between the past, the present, and the future in history teaching. This study examines the effects of teaching analogous cases of an enduring human issue in 2 experimental conditions: 1 in which grade 10-12 students were actively encouraged to compare cases and to draw analogies with the present and 1 in which students studied cases without making comparisons or drawing analogies with the present. Set against the results of a group of students who followed the usual history curriculum, multilevel regression analyses on the collected data revealed that both experimental conditions positively affected students’ appraisals of the relevance of history, more so in the case-comparison condition than in the separate-case condition. Students in the case-comparison condition also deemed the lesson course more valuable and experienced less difficulty with the applied pedagogical approach than students in the separate-case condition. Case comparison did not negatively affect the acquisition of historical factual knowledge. Implications for further research are discussed.

Developing historical consciousness is an important rationale for history as a school subject in many Western countries (e.g., DFE, 2013; NCHS, 1996; SLO/Nationaal Expertisecentrum Leerplanontwikkeling, 2016; VGD, 2006). The concept of historical consciousness was elaborated in Germany in the 1960s and 1970s from the point of departure that there exists an interdependence between past, present, and future in human thinking (Jeismann, 1988). Related to the human aptitude to think back and forth in time, historical consciousness can be characterized as the complex relationship between interpretation of the past on the one hand and the perception of reality in the present and expectations for the future on the other. Without a future perspective, studying the past is rather pointless, and without relying on past experiences, conceiving a future becomes very difficult.

Developing historical consciousness in history education implies that by connecting the history of mankind to their own personal lives, students should obtain a deeper understanding of today’s and tomorrow’s world and get a sense of their own historicity. As a rule, history standards cover the history of mankind from prehistoric to modern times, usually outlined in chronologically ordered topics. However, when it comes to developing historical consciousness, standards offer little guidance.

There are reasons to assume that students do not use the past as a tool for orientation on the present and future of their own accord. In many Western countries, they have unarticulated views on the purposes and benefits of studying the past (e.g., Angvik & Von Borries, 1997;
Biddulph & Adey, 2003; Harris & Reynolds, 2014; Haydn & Harris, 2010; VanSledright, 1997; Zhao & Hoge, 2005). Students tend to see the past as fixed, as a closed entity of given dates and facts about a world out there that bears little relation with the real world; they have difficulty understanding that history is about constructing narratives about the past that serve contemporary needs and interests (e.g., Barton, 2008; Lee, 2005; Maggioni, Alexander, & VanSledright, 2004; Shemilt, 2009; Stoel, Logtenberg, Wansink, Huijgen, Van Boxtel, & Van Drie 2017). History curricula usually focus on historical topics as aims in themselves, without drawing analogies with the present or referring to big pictures, thus possibly thwarting students’ ability to discern patterns of change and continuity between past and present times (Blow, 2009; Carroll, 2016; Foster, Ashby, & Lee, 2008).

Given the fact that students are not inclined to make connections between the past, present, and future spontaneously, this disposition needs to be pedagogically cultivated. In earlier work, we distinguished three pedagogical approaches for this to be achieved: (a) teaching with longitudinal lines describing long-term political, socio-economical, or cultural developments, for example, the emergence of national states; (b) teaching with analogies between the past and the present, for example, an analogy between the Roman Empire and the European Union; and (c) teaching with enduring human issues (i.e., issues shared by humans of all times because they are essential to human existence, such as religious beliefs, government, trade, food and sickness; Van Straaten, Wilschut, & Oostdam, 2016).

This quasi-experimental study investigates the merits of history teaching that combines the second and third pedagogical approach by means of a lesson intervention conducted in Dutch senior secondary education. Our main assumption is that these approaches foster students’ abilities to use knowledge of the past in reflections about present-day affairs, thus positively affecting their appraisals of the relevance of history. In addition, as this type of teaching is an innovative practice in Dutch history education, we investigated students’ learning experiences and situational interest (SI).

**Theoretical framework**

**Learning through analogical reasoning**

The design of this study relies on cognitive psychological research on analogical reasoning and case-comparison learning. Through analogical reasoning, students decontextualize specific information into generally applicable principles and concepts, facilitating knowledge transfer to new cases that share underlying structural characteristics but differ in specific characteristics (Alfieri, Nokes-Malach, & Schunn, 2013; Gentner, Loewenstein, & Thompson, 2003; Salomon & Perkins, 1989). In general, analogical reasoning and case-comparison activities lead to better learning outcomes than more traditional forms of instruction, such as lecturing and reading (Alfieri et al., 2013). Comparing cases simultaneously appears to be more effective than studying cases sequentially (one after the other) without making comparisons (Alfieri et al., 2013; Gentner et al., 2003). In a sequential condition, students are not inclined to make comparisons (Gentner et al., 2003; Rittle-Johnson & Star, 2007), and if they do, they focus on surface feature similarity, whereas case comparison learners give much more weight to structural features, resulting in deeper conceptual understanding (Alfieri et al., 2013; Cummins, 1992).

Case-comparison activities need to be accompanied by supportive cues as students, especially novices, often fail to detect structural features underlying similar cases of their own accord. Highlighting analogous features in direct instruction is helpful to students and makes case comparison activities more effective (Gentner et al., 2003; Holyoak & Koh, 1987; Richland, Zur, & Holyoak, 2007). Other effective cues are (a) searching for similarities, instead of searching for both similarities and differences (Alfieri et al., 2013); (b) testing learners immediately after comparison activities (Alfieri et al., 2013); (c) using visual or schematic representations of key features
(Bulgren, Deshler, Schumaker, & Lenz, 2000; Richland, & McDonough, 2010); and (d) modeling or scaffolding case-comparison tasks into step-by-step learning activities (Richland et al., 2007). Scaffolding case comparison activities may be accomplished in several diverse modes. For this study, we used the first three stages of the guided analogy training model developed by Gentner et al. (2003): (a) introducing key principles and key concepts, (b) using a case to demonstrate the principles, and (c) applying the principles on unknown cases in a comparison with the first case.

**Analogical reasoning and the discipline of history**

Thus far, empirical studies on analogical reasoning and case-comparison learning have mainly been conducted in the fields of mathematics and natural sciences. In these subjects, the foundation of analogical reasoning is that similar actions in similar cases will have similar effects. This mechanism seems to apply to a lesser extent to the humanities, because human behavior is, to a certain extent, unpredictable. Furthermore, history tends to stress the notion that human actions are bound to time and place and, therefore, singular and unique. History is essentially concerned with the **otherness** of the past, emphasizing differences and not similarities with the present. The unpredictability and uniqueness of human behavior complicate the use of Hempel’s (1942) covering law model (CLM) for explaining historical events (Jonker, 2001; Lorenz, 1998; Munslow, 2006). The CLM implies that every scientific explanation should be based on a combination of concrete events with a generally applicable law explaining the occurrences (e.g., the event of a collapsing bridge when a heavy truck tries to cross it, is explained by the general law: “If a truck is too heavy for a bridge to support it, the bridge will collapse when the truck tries to cross it”). In the case of historical explanations, such laws are either trivial and, therefore meaningless (Louis XIV died unpopular, because rulers who do not serve the interests of their subjects become unpopular”), or so specific that they only apply to one situation (“Any prince pursuing the same policy of Louis XIV in the same conditions would die unpopular;” Van der Dussen, 1988). Because there seem to be no laws in history that students can use to explain the present or to predict the future, drawing analogies may turn out to be either false or impossible. Another objection to historical analogies is that they may turn out to be simplistic, politically biased, or anachronistic (Leira, 2017; Miller, 2016; Mumford, 2015).

In spite of all of this, it is also true that historians necessarily have to utilize generalizations in constructing their narratives, because they cannot meaningfully describe past events without resorting to generalizing concepts (e.g., feudalism, revolution, colonialism) and generalizing insights into human behavior, which, although perhaps not explicitly acknowledged as such, do represent an explanatory power in their narratives (Mink, 1966). The fact that people in diverse periods in the past were confronted with similar problems for which they found different solutions, may provide illuminating insights resulting from comparisons. Dressel (1996) points to examples of “elementary human experiences” (p. 77) like food, housing, religion or encounters with strangers; according to Dressel, taking cognizance of elementary human experiences in the past induces reflections on one’s own perspectivity (p. 180). It is exactly this aspect of historical analogies that may be illuminating, because it sheds a light on the diversity of human approaches to enduring human issues and may expand the repertoire of human possibilities beyond one’s own experience.

More fundamentally, Mink (1966) stresses the partial and provisional nature of any historical account of the past, based as it is on fragmentary pieces of evidence that necessitate the use of conjecture. In Mink’s view, there is therefore no logical distinction between explaining the past and predicting the future, which also takes place based on the assessment of logical probabilities that can be derived from available data. If we apply this kind of reasoning to events that we know to have taken place, they become a historical explanation; if we apply it to future events that have not taken place yet, they become a prediction. Stressing the diversity between explaining the past and predicting the future is due to the misconception that “the past consists of settled
While the future is yet indeterminate" (Mink, 1966, p. 30). Mink's line of reasoning is not without difficulty, taking into account the fundamental difference between using evidence to establish facts about the past and using evidence to predict potential effects in the future. However, Mink rightly emphasized that the past, itself, does not produce facts. Historians establish facts, using a mode of reasoning that, in a way, resembles the act of making predictions. There is therefore no fundamental objection to amalgamate reflections about the past, the present, and the future and combine them in potentially fruitful ways.

This study advocates the orienting function of historical analogies, acknowledging the fact that unique situations in the past can never be fully equated without ignoring certain specific details. Knowledge about specific details, however, cannot be an aim in itself for history education, because history in schools should prepare students for citizenship. The deeper insights into human nature and human society resulting from making comparisons and drawing analogies can play an important role in this context.

**Using analogies as a relevance tool**

The essence of education is preparing students for societal participation and developing their personal identity (Biesta, 2010). Studying the past should, therefore, be explicitly linked to students’ lives and the society of which they are part. In earlier work, we used the concept of relevance of history in this respect, which we defined as “allowing students to recognize and experience what history has to do with themselves, with today’s society and their general understanding of human existence” (Van Straaten et al., 2016, p. 482). We distinguished three objectives for relevant history teaching: (a) building a personal identity: seeing oneself as an individual with a personal past and developing one’s own values, opinions, and ideals vis-à-vis those of the historically shaped communities to which one belongs; (2) becoming a citizen: understanding the origins of contemporary affairs and developing well-substantiated views to function as a citizen in society; and (3) understanding the human condition: becoming aware of the temporal dimension of the human existence and supplementing one’s experiences with past approaches to human issues (Van Straaten et al., 2016).

Based on the merits of analogical and case-comparison reasoning, drawing analogies in the context of an enduring human issue may be a useful tool for pursuing these relevance objectives. It can help students acquire a more abstract understanding of lesson content as it involves higher order thinking skills, such as generalizing, categorizing, and inferring (Richland & Simms, 2015). All of this corresponds to research literature showing the benefits of conceptual frameworks and concept-based instruction for the teaching and learning of history (e.g., Lee, 2005; Stern, 2010; Thornton & Barton, 2010; Twyman, McCleery, & Tindal, 2006).

Using historical phenomena to reflect on analogous contemporary phenomena puts students into a position to generate insights that may have value beyond school. Recognizing the utility of classroom tasks in terms of applicability in real life is what encourages students to learn and what they find important in valuing the relevance of school subjects (Brophy, 1999; Eccles, 2004; Frymier & Shulman, 1995; Martin, 2003; Muddiman & Frymier, 2009; Pintrich, 2003). Meaning making and content relevance are also important stimuli for enhancing SI (i.e., the interest experienced in a particular moment emanating from environmental factors such as the clarity of tasks, the perceived value of information or the coherence and vividness of texts; Harackiewicz, Smith, & Priniski, 2016; Schraw, Flowerday, & Lehman, 2001).

**Analogical reasoning and enduring human issues in history teaching**

There are some inspiring classroom examples of the use of historical analogies in history teaching (e.g., Boix-Mansilla, 2000; Laffin & Wilson, 2005; Myson, 2006; Rollett, 2010). In many cases, something mundane from the present is being used to explain something similar
from the past, or historical events that bear strong similarities are being compared (Ata, 2009; McCarthy Young & Leinhardt, 2000). There are no data on the frequency of historical analogies being used to reflect on present-day affairs, but it seems plausible to assume this is not a regular practice, given the focus on memorizing facts in many history lessons.

There have been a number of proposals for designing history curricula organized around enduring human issues exemplified by analogous cases from different periods (e.g., Barton & Levstik, 2011; Brush & Saye, 2014; Carroll, 2016; Grant & Gradwell, 2010; Hunt, 2000; McTighe & Wiggins, 2013). In many designs, enduring issues are embedded in existing curricula by means of selecting topics that, incidentally, seem suitable to move beyond factual historical content. Obenchain, Orr, and Davis (2011), for example, applied the question “should liberty be limited to standard units such as the American Revolution (“Was it appropriate for the Sons of Liberty to use their power to destroy property in the Boston Tea Party?”), the American Civil War (“Was the North justified in limiting the liberties of Southern property owners?”), and the Vietnam War (“During the Vietnam War, should the liberties of press, speech, and protest have been limited?” p. 193). Because essential questions are assigned to topics appearing in the curriculum for their own sake, application may often take place in very specific and very diverse contexts, which must be well understood for students to be able to grasp and elaborate on the essence of the issues at stake. Moreover, as topics in existing curricula are being taught in different grades over a relatively long period of time, using analogies and abstracting generally applicable knowledge are less obvious.

For this study, therefore, we selected topics that were specifically suitable for addressing essential questions about an enduring human issue, instead of embedding questions in an extant curriculum. These topics were taught sequentially in a short time span to facilitate comparison activities and the drawing of analogies between past and present. The assumption here is that comparison activities allow students to study the past in meaningful ways and, consequently, have a positive effect on their appraisals of the relevance of history.

**This study**

A lesson unit was designed for two experimental conditions: the case-comparison condition, in which students discussed essential questions concerning an enduring human issue by means of comparing cases from different periods and drawing analogies with the present; and the separate-case condition, in which the same historical cases were taught sequentially (one at the time) without discussing essential questions, making mutual comparisons and drawing analogies with the present. We tested the extent to which case-based history teaching about an enduring human issue in both experimental conditions affected students’ (a) appraisals of the relevance of history, (b) SI, (c) opinions about the complexity of this type of history teaching, and (d) acquisition of subject matter knowledge. Relevance of history corresponds to the objectives of relevant history teaching as described (i.e., building a personal identity, becoming a citizen, and understanding the human condition). SI refers to the way students experienced the lesson unit in terms of attention, engagement, enjoyment, and value (Linnenbrink-Garcia et al., 2010).

**Hypotheses**

We expected that:

1. students’ appraisals of the relevance of history are positively affected to a greater extent in the case-comparison condition than in the separate-case condition.
2. students’ SI is positively affected to a greater extent in the case-comparison condition than in the separate-case condition.
3. students in the case-comparison condition considered the applied approach (i.e., studying cases from different periods in the context of an enduring human issue) less problematic than students in the separate-case condition.

4. there are no differences between the case-comparison and the separate-case condition in terms of acquisition of subject matter knowledge.

In accordance with our theoretical framework, we assumed that students in the case-comparison condition would generate generic knowledge applicable in real life, allowing them to experience the value of history (hypothesis 1). The case-comparison condition included stimuli for SI that were lacking in the separate-case condition, such as pursuing content relevance by seeking connections with the present (hypothesis 2). Making comparisons using essential questions would enable students to envisage the historical cases in a comprehensive framework, instead of seeing them as isolated events in particular historical contexts (hypothesis 3). The learning effectiveness of comparison activities gave reason to assume that students in the case-comparison condition would not underperform in terms of factual knowledge acquisition, even though a considerable part of their study time was spent on past-present analogies, whereas students in the separate-case condition focused exclusively on learning historical facts and practicing historical skills (hypothesis 4).

Method

Study design

A pre-/post-test design with a comparison group was used to evaluate effects of the case-comparison and separate-case conditions, as predicted by hypothesis 1 (see Table 1). To avoid confusion with the case-comparison group, we have called our comparison group nontreatment group. This group followed the regular history curriculum and completed the questionnaire concerned with a time interval between pre- and post-tests as long as the average duration between pre- and post-test in the experimental conditions (i.e., 5 weeks). Measures in the nontreatment group were only carried out for hypothesis 1, as the other hypotheses relate to the lesson intervention in which this group had not participated. The nontreatment group also took a historical knowledge test prior to the intervention to examine equivalence with the treatment groups.

The outcomes of the experimental groups were not mutually compared, but independently with the outcomes of the nontreatment group. Because the tested pedagogical approaches were innovative in Dutch history education, it seemed to make sense to examine their effects on students’ history relevance perceptions compared to effects of usual history teaching. The standard history curriculum is chronologically organized around historical periods and themes containing a relatively large quantity of historical content to be memorized in a traditional manner (see Educational context). Students in the nontreatment condition were taught various regular historical topics, ranging from the Neolithic Revolution to the Enlightenment and Cold War. Teacher instruction, history text books, and examinations were entirely focused on teaching students to

Table 1. Design and measures of the study.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Pre/Post</th>
<th>Case-Comparison Group</th>
<th>Separate-Case Group</th>
<th>Nontreatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention (6 lessons)</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Measures:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical knowledge</td>
<td>Pre</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>History relevance 1</td>
<td>Pre/post</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Situational interest 2</td>
<td>Post</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Pedagogical approach 3</td>
<td>Post</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lesson content knowledge 4</td>
<td>Post</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
understand what happened in the past. It was assumed that this usual history teaching in this group would not significantly affect students’ relevance views. This could have been the case if a specific topic or a specific teacher’s approach would have stirred students’ thinking about the benefits of history, but as there were many different topics and teachers, this could go either way, with regular teaching negatively affecting students’ relevance perceptions, as well. In this way, potential effects of lesson content or teachers’ approaches were considerably neutralized.

**Educational context**

The study was conducted in the two highest tracks of Dutch senior secondary education: middle-level general secondary education (HAVO) and pre-university secondary education (VWO). The history curriculum in these tracks is based on frame of reference knowledge organized around 10 eras and their characteristic features, starting with the “era of hunters and farmers” and ending with the “era of television and computer” (Wilschut, 2009, 2015, p. 91). The 10 eras are first introduced in junior secondary education and subsequently studied on a more profound level in senior secondary education. History is not a compulsory subject in senior secondary education, which means that this study’s participants had opted for a curriculum of which history was a part.

It is important to note that (a) the 10 eras and their features are taught as independent topics in chronological order without comparing them in the context of enduring issues, and (b) the use of history—a component of the Norwegian and Swedish curriculum (Nordgren, 2016)—does not appear in the Dutch curriculum. This means that, prior to our intervention, participants had not been taught any of the objectives of relevance of history underlying the constructs of the questionnaire we used to gauge students’ perceptions on this matter.

**Participants**

In the original sample, participants were 1,236 grade-10-to-12 senior secondary students from 24 secondary schools located in nine out of the 12 Dutch provinces. Students who did not complete both questionnaires of the pre- and post-test measurements were excluded (n = 214). This resulted in a final sample of 1,022 students, of whom 460 participated in the case-comparison group, 273 in the separate-case group and 289 in the nontreatment group. Table 2 shows the sample specifics.

An a priori power analysis showed adequate statistical power to test our hypotheses (β > .80) for small-to-medium, medium, and large effects with a one-sided test at the conventional alpha level of .05. We expected relatively modest effect sizes because (a) case-based history teaching focusing on enduring issues was new for both teachers and students and (b) experimental studies in the educational sciences and other social sciences often report effect sizes in the small-to-medium and medium range (see, for example, Lipsey & Wilson, 1993).

Thirty teachers participated: 22 in the experimental conditions and 8 in the nontreatment condition. As the nontreatment group was not involved in the intervention, no specifics are reported about the teachers, whose only job was to teach as usual and administer questionnaires. Teachers participating in

<table>
<thead>
<tr>
<th>Table 2. Participating students for each research condition and educational track.</th>
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<tbody>
<tr>
<td><strong>Case-Comparison Condition (n = 460)</strong></td>
</tr>
<tr>
<td>Middle-level general education (HAVO)</td>
</tr>
<tr>
<td>Pre-university education (VWO)</td>
</tr>
<tr>
<td>Mean age</td>
</tr>
<tr>
<td>Gender: Female</td>
</tr>
</tbody>
</table>
the two experimental conditions were recruited through an announcement in a Dutch history teaching journal and by soliciting MA-level teachers graduated from our own university. Eleven teachers took part in the case-comparison condition, 4 in the separate-case condition and 7 in both conditions. Out of the 22 teachers, 13 taught one class only, 6 taught two classes and 3 taught four classes. The ones that taught more than one class were, in most cases, teachers who participated in both the case-comparison and separate-case conditions. Teaching experience of the teachers in the case-comparison condition varied from 7 to 35 years ($M = 16.50; SD = 8.63$); 44% were men, 56% women. Teaching experience in the separate-case condition ranged from 5 to 30 ($M = 16.27; SD = 8.71$); 64% were men, 36% women. Hence, all teachers in both conditions had at least 5 years of teaching experience.

Initially, teachers and classes were randomly assigned to both treatment conditions. For practical reasons (mostly a lack of time), some teachers withdrew from the project before the lesson intervention had started, in particular, teachers assigned to the separate-case condition. This explains why the numbers of students and teachers in both treatment conditions are not equal. This attrition may have introduced some bias. We therefore conducted multilevel regression analyses on pretest outcomes for all participating students, which demonstrated equivalence of conditions at the start of the experiment (see also Data analysis).

**Lesson unit design**

The subject of the lesson unit was the enduring human issue of migration and integration. Five refugee groups from early modern times onwards were used as exemplary cases: (a) Protestants leaving the Catholic southern Netherlands for the Protestant north during the Dutch Revolt (16th century); (b) persecuted Jews seeking refuge in the Dutch Republic (17th century); (c) Belgians fleeing from First World War violence towards the neutral Netherlands; (d) German *Heimatvertriebene* being expelled from former German territory in Poland, Russia, and Czechoslovakia after the Second World War; and (d) Cubans leaving for the United States after the communist takeover by Fidel Castro in 1959. The unit contained six lessons: one introduction lesson and one lesson for each refugee case. Pre- and post-measurements required another two lessons. To ensure that all students were equally informed, two authors—both historians, history teacher educators, and history textbook writers—documented the refugee cases using the same texts and images in either condition. Lesson materials were bundled into a booklet in which students noted their answers.

Table 3 clarifies the differences between the courses in both experimental conditions. Learning activities in the case-comparison condition were supported by modeling according to the guided analogy training of Gentner et al. (2003) and by using a framework of key questions and concepts drawn from academic literature on migration and integration (e.g., Mavroudi & Nagel, 2016; Obdeijn & Schrover, 2008; see Appendix). In the introduction lesson, the framework was explained by the teachers and used by students for analyzing current refugee issues in the Netherlands. Students subsequently employed the framework for comparing the refugee cases and drawing analogies between these cases and present-day refugee issues. Each lesson ended with students discussing in pairs differences and similarities between the past and the present.

Students in the separate-case condition studied the historical refugee cases to deepen their knowledge about the Dutch Revolt, the Dutch Republic in the 17th century, the World Wars, and the Cold War, all of which belong to the prescribed characteristic features of the framework of 10 eras. In the introduction lesson, students contextualized sources related to these topics and practiced historical skills. These two assignment types—common in the history teaching students were familiar with—were consequently applied in the next five lessons about refugee groups in the past.

Each refugee case lesson lasted 50 min and had the same build-up in both conditions. The teacher introduced the topic using a digital presentation—identical for both conditions—displaying elementary facts and dates (10 min). Students then studied the documents and completed assignments (25 min). The lessons ended with a plenary exchange of students’ written answers (15 min).
Teacher preparation and treatment integrity

The teachers who participated in the experimental conditions were informed about the aims and methods of the lesson unit in a 3-hr meeting. Three absentees were personally instructed. The teachers received a guide describing goals and procedures, providing model answers and historical background information. All teachers received information about both the case-comparison and the separate-case lesson unit (even if they participated in one condition only) to ensure that they were well aware of the distinction between conditions. During the meeting, all teachers indicated that goals and methods of the lesson intervention were clear to them.

The first author observed six lessons (three in each experimental condition) and interviewed 6 teachers and 32 students (in dyads) to collect experiences and opinions. The teachers evaluated the lesson intervention by filling out an online questionnaire. They reported their satisfaction with the quality of course materials. Students had completed the questionnaires without irregularities; the lessons had proceeded according to plan and students’ work ethic had been as usual. All teachers had completed the lesson unit, with a number of them reporting tight time schedules. Data from the interviews, the teacher questionnaire and the lesson observations did not point at serious deviations from lesson protocols.

Measures

History relevance

The Relevance of History Measurement Scale (RHMS) was used to gauge students’ appraisals of the relevance of history. The RHMS is a validated closed-format questionnaire designed to

Table 3. Design of the lesson units in the experimental conditions.

<table>
<thead>
<tr>
<th>Case-Comparison Condition</th>
<th>Separate-Case Condition</th>
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<tbody>
<tr>
<td><strong>Aim</strong></td>
<td>Learning about refugee cases from the past to deepen knowledge of general topics related to these cases</td>
</tr>
<tr>
<td><strong>Lesson 1</strong></td>
<td>Contextualizing primary sources using knowledge of general topics related to the refugee cases</td>
</tr>
<tr>
<td>Demonstrating a key questions framework for case comparison and drawing analogies with the present</td>
<td>Practicing historical skills using the primary sources</td>
</tr>
<tr>
<td>Applying the framework to current refugee issues</td>
<td>Studying five historical refugee cases using the same documents and images as in the case-comparison condition</td>
</tr>
<tr>
<td><strong>Lesson 2-6</strong></td>
<td>Practicing historical skills using these primary sources</td>
</tr>
<tr>
<td>Studying five historical refugee cases using the same documents and images as in the separate-case condition</td>
<td>For example:</td>
</tr>
<tr>
<td>Assign-ment types</td>
<td>Assignments:</td>
</tr>
</tbody>
</table>
| 1. Analyzing and comparing refugee cases using the key questions framework. | [Source: Authorities in Miami issued an informative movie to reduce growing concerns among the population about the arrival of large quantities of Cuban refugees] Assignments:
| 2. Considering present-day refugee issues by drawing analogies with the past cases. | 1. Which questions and concepts from the key questions framework can you relate to the concerns of the people of Miami? Choose two. |
| For example: [Source: Authorities in Miami issued an informative movie to reduce growing concerns among the population about the arrival of large quantities of Cuban refugees] Assignments: | 2. The government appealed to American history to reassure the population. Nowadays, could the Dutch government refer to immigration in Dutch history for this purpose? Explain your opinion. |
| 1. A quote from the movie: “The whole world sees the fate of the Cuban refugees.” Why was it important for the US to treat the Cubans properly in the light of the Cold War? | 2. Did the movie emphasize change or continuity in American history? Explain why the authorities did this. What interest did they have? |
measure student beliefs about the value of history in view of building a personal identity, becoming a citizen and understanding the human condition (Van Straaten, Wilschut, & Oostdam, 2018). Item examples in the order of these relevance strands were: “History helps me to get to know myself better;” “History is of little use if you want to understand the news;” “History enables you to imagine what will happen in the future.” The RHMS comprises 24 items each with a 6-point Likert scale (1 = totally disagree; 2 = disagree; 3 = disagree a little; 4 = agree a little; 5 = agree; 6 = totally agree). The reliability of the RHMS subscales was good, with \( \alpha \)-values ranging from .80 to .90. For the full scale, \( \alpha \) was .92 for the pretest and .94 for the posttest.

**SI**

Students’ SI was measured by means of a 12-item questionnaire using a 5-point Likert scale (1 = totally disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = totally agree) based on an instrument designed by Linnenbrink-Garcia et al. (2010), measuring three aspects of SI in classroom settings: (a) the extent to which a course grabs students’ attention (triggered-SI); (b) the extent to which a course itself is pleasurable and engaging (maintained-SI-feeling); and (c) the extent to which a course is deemed important and valuable (maintained-SI-value). The original items were translated and in the lessons about refugees was added to each of them to avoid students having other history classes in mind. Sample items for the three SI-aspects were respectively: “In the lessons about refugees we did things that grabbed my attention;” “I’m excited about what we learned about refugees in history class;” and “What we have learned about refugees in history class can be applied to real life.” Reliability of the three SI subscales was good (respectively \( \alpha = .82, .89 \) and .80). Whole scale \( \alpha \) was .93.

**Pedagogical approach**

Students’ opinions about the complexity of the applied case-comparison approach were measured by means of a self-designed three-item questionnaire with a 5-point Likert scale (1 = totally disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = totally agree). Items were: “Lessons about topics from different times are confusing;” “Teaching a theme with topics from different times (like in the refugee lessons) is more difficult than the history teaching we are used to;” and “In the refugee lessons, there were so many different topics that it was difficult to understand them.” The pedagogical approach scale had sufficient reliability (\( \alpha = .71 \)).

**Lesson content knowledge**

Students’ knowledge of the five refugee cases was measured with a self-designed test comprising 30 true/false items (6 per case). Item examples are: “Cities in the Dutch Republic offered refugees from the Southern provinces favorable settlement conditions;” “About 1 million Belgian refugees arrived in the Netherlands in 1914;” and “Among the people of Florida there were hardly any concerns about the influx of Cuban refugees.” Reliability of the lesson content knowledge scale was sufficient (\( \alpha = .71 \)).

Six students’ background variables were used as covariates: educational level, grade, age, gender, history outside class, and historical knowledge. History outside class refers to the extent to which students talked about history at home or with other people, which was measured by one item with a 4-point Likert scale (1 = never, 2 = hardly ever, 3 = regularly, 4 = often). Historical knowledge refers to a general historical knowledge test all students took prior to the intervention to examine group equivalence and to control for effects of differences in knowledge levels on outcome measures. We designed a pencil-and-paper test with 40 true/false statements about general historical topics related to the five refugee examples (e.g., Dutch revolt, World Wars). Item examples were: “Luther was pardoned by the Holy Roman Emperor at the Diet of Worms,“
“Characteristic of 17th-century Dutch painting were scenes of military battles and royal life;” “Russia pulled out of the First World War after the Bolshevik revolution led by Lenin;” and “South and North Vietnam were reunited under a communist government in the 1970s.” Cronbach’s $z$ was .66.

Data analysis

Preliminary analyses revealed no serious violation of the assumption of normality. Levene’s tests showed equal variance across groups for all outcome measures except for SI-total, triggered-SI and lesson content knowledge. Three univariate outliers were detected. Removing them did not result in significant outcome differences, so all cases were retained; no transformations were applied.

The equivalence of the three groups at the start of the experiment was demonstrated through multilevel regression analyses on pretest outcomes for historical knowledge and history relevance. Regarding their general knowledge of history, no differences were detected between the case-comparison group and the nontreatment group, $z = 0.190$, $p$-value (two-sided) = .849. No differences were found either between the separate-case group and the nontreatment group, $z = 0.195$, $p$-value (two-sided) = .849. With regard to students’ appraisals of the relevance of history, there were no differences neither between the case-comparison and the nontreatment group, $z = -0.386$, $p$-value (two-sided) = .700, nor between the separate-case group and the nontreatment group, $z = -0.022$, $p$-value (two-sided) = .982. These results automatically rule out the possibility of historical knowledge and history relevance differences between the case-comparison and separate-case conditions.

To check for possible effects of (differential) attrition between conditions, a MANOVA was conducted with history relevance pretest scores as dependent variables and attrition as independent variable. No significant differences were found between students who discontinued between the pretest and posttest (these cases were removed from the sample) and students who completed all questionnaires, Wilks’ $\lambda = .981$, $F(20, 3862) = 1.14$, $p = .308$. No significant interaction effect between attrition and condition was found either, Wilks’ $\lambda = .997$, $F(4, 1168) = .896$, $p = .469$.

Taking into account the hierarchical data structure, with students (level 1) nested in classes (level 2), multilevel regression analysis was applied (Hox, 2010) using MLwiN 2.20 (Rasbash, Steele, Browne, & Goldstein, 2009). Intra-class correlations at class level for scale measures ranged from .07 to .20, calling for multilevel analysis (Snijders & Bosker, 2012). Intra-class correlations at school level ranged from zero to .02 with a mean score of .005. Given these small correlations (ICC-values $\leq .05$) and the relatively small number of participating schools, school level was not included in the analysis (Maas & Hox, 2005; Snijders & Bosker, 2012).

Multilevel analyses were conducted for each outcome measure: relevance (total), relevance-identity, relevance-citizenship, relevance-human condition; SI (total), maintained-SI-value, maintained-SI-feeling, triggered-SI; pedagogical approach; and lesson content knowledge. The two experimental conditions were dummy-coded independent variables, each of them contrasting with the nontreatment condition; all outcome measures were statistically adjusted for history relevance pretests and six students’ background variables as covariates: educational level, grade, age, gender, history outside class, and historical knowledge.

All tests were conducted at the conventional alpha level of .05 except for the lesson content knowledge test related to hypothesis 4. As we hypothesized, no differences between the two treatment groups regarding knowledge acquisition, this test was not aimed at rejecting the null hypothesis (i.e., this is referred to as ‘proving the null hypothesis’). We therefore adjusted the alpha level to $\alpha = .50$ with a critical range of .40-.60, meaning that $p$-values outside this range would indicate a rejection of hypothesis 4.
Model fit was evaluated with the log-likelihood test (differences between $-2LL$ of the intercept-only model and the final model) and explained variance. With regard to statistically significant effects related to the main hypotheses, two types of effect sizes were calculated: (a) standardized model-based effect sizes, expressing experimental differences after adjustment for the covariates from our statistical models, and (b) effect sizes based on observed scores ($d_{obs}$), expressing the experimental differences for the observed outcome measures. Both model-based and observed effect sizes were standardized using Cohen’s $d$ (Cohen, 1988).

**Results**

**Descriptive statistics**

Table 4 shows the descriptive statistics. Regarding the general historical knowledge test, mean score differences between groups were small and statistically insignificant, as mentioned earlier. Pretest mean scores for history-relevance-total were above average for all three groups, which can be attributed to the relatively high scores for relevance-citizenship and relevance-human condition. SI-total mean score was higher for the case-comparison group than for the separate-case group, which was mainly due to the relatively high scores for maintained-SI-value and triggered-SI. The case-comparison group had experienced less difficulty with the applied approach than the separate-case group as indicated by their pedagogical approach scores. Both groups correctly answered about 73% of the lesson content knowledge items.

**Students’ appraisals of the relevance of history**

Results of multilevel analyses conducted for history relevance are presented in Table 5. The case-comparison condition showed a statistically significant effect for relevance-total (i.e., a positive difference of .130 point in favor of the case-comparison group compared to the non-treatment group, with a corresponding standard error, SE, of .032). Effects were also significantly positive for identity, citizenship, and human condition. The model-based effect sizes were 0.09, 0.08, 0.08, and 0.06, respectively ($d_{obs} = 0.17, 0.13, 0.17$ and 0.12). The separate-case condition showed significant effects for relevance-total and citizenship with significant model-based effect sizes of 0.06 and 0.07 respectively ($d_{obs} = 0.15$ and 0.21). Acknowledging the small sizes of the effects, these

| Table 4. Mean scores and (standard deviations) for the measures for each group. |
|-------------|-------------|-------------|-------------|
|             | Case-Comparison Group | Separate-Case Group | Nontreatment Group |
| History relevance: pretest |           |           |           |
| Total       | 460         | 3.78 (0.70) | 273         | 3.79 (0.70) | 289        | 3.79 (0.72) |
| Identity    | 460         | 3.03 (0.90) | 273         | 2.98 (0.88) | 289        | 3.08 (0.92) |
| Citizenship | 460         | 4.06 (0.74) | 273         | 4.09 (0.74) | 289        | 4.08 (0.76) |
| Human condition | 460     | 4.14 (0.85) | 273         | 4.18 (0.87) | 289        | 4.13 (0.91) |
| History relevance: posttest |           |           |           |
| Total       | 460         | 3.85 (0.76) | 273         | 3.83 (0.70) | 289        | 3.72 (0.76) |
| Identity    | 460         | 3.22 (0.94) | 273         | 3.15 (0.87) | 289        | 3.10 (0.94) |
| Citizenship | 460         | 4.07 (0.81) | 273         | 4.09 (0.74) | 289        | 3.93 (0.80) |
| Human condition | 460     | 4.18 (0.84) | 273         | 4.15 (0.87) | 289        | 4.08 (0.89) |
| Situational interest (SI) |           |           |           |
| SI (total)  | 444         | 3.21 (0.76) | 264         | 3.12 (0.66) | –          | –          |
| Maintained-SI-value | 444     | 3.37 (0.76) | 264         | 3.24 (0.72) | –          | –          |
| Maintained-SI-feeling | 444    | 3.17 (0.91) | 264         | 3.12 (0.82) | –          | –          |
| Triggered-SI | 444       | 3.10 (0.83) | 264         | 3.00 (0.71) | –          | –          |
| Pedagogical approach | 444     | 2.50 (0.78) | 264         | 2.75 (0.77) | –          | –          |
| Lesson content knowledge | 444    | 22.18 (3.60)| 264         | 21.71 (4.27)| –          | –          |
| History outside class (covariate) | 460 | 2.43 (0.74) | 273         | 2.44 (0.70) | 289        | 2.40 (0.76) |
| Historical Knowledge (covariate) | 460    | 25.61 (5.03)| 273         | 25.49 (4.47)| 289        | 25.11 (4.73) |
Table 5. Multilevel models for history relevance ($N = 1022$).

<table>
<thead>
<tr>
<th></th>
<th>Relevance (Total)</th>
<th>Identity</th>
<th>Citizenship</th>
<th>Human Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed model</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>3.751 (.037)*</td>
<td>3.064 (.060)*</td>
<td>4.005 (.043)*</td>
<td>4.083 (.053)*</td>
</tr>
<tr>
<td>Case-comparison conditiona</td>
<td>.130 (.032)*</td>
<td>.121 (.052)*</td>
<td>.125 (.037)*</td>
<td>.097 (.046)*</td>
</tr>
<tr>
<td>Separate-case conditiona</td>
<td>.104 (.035)*</td>
<td>.068 (.057)</td>
<td>.117 (.041)*</td>
<td>.038 (.051)</td>
</tr>
<tr>
<td><strong>Covariates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational levelb</td>
<td>−.028 (.029)</td>
<td>−.078 (.046)</td>
<td>−.006 (.033)</td>
<td>.038 (.041)</td>
</tr>
<tr>
<td>Gradec</td>
<td>.016 (.035)</td>
<td>.042 (.057)</td>
<td>−.011 (.041)</td>
<td>.042 (.050)</td>
</tr>
<tr>
<td>Age (centered)</td>
<td>.023 (.016)</td>
<td>.036 (.026)</td>
<td>.025 (.019)</td>
<td>.011 (.023)</td>
</tr>
<tr>
<td>Genderd</td>
<td>−.058 (.027)*</td>
<td>.051 (.044)</td>
<td>−.109 (.031)*</td>
<td>−.057 (.039)</td>
</tr>
<tr>
<td>History outside class</td>
<td>.046 (.021)*</td>
<td>.100 (.033)*</td>
<td>.099 (.024)*</td>
<td>.080 (.028)*</td>
</tr>
<tr>
<td>History knowledge</td>
<td>−.001 (.003)</td>
<td>.001 (.005)</td>
<td>.000 (.004)</td>
<td>.000 (.005)</td>
</tr>
<tr>
<td>Corresponding relevance pretest</td>
<td>.855 (.023)*</td>
<td>.732 (.027)*</td>
<td>.778 (.024)*</td>
<td>.691 (.023)*</td>
</tr>
<tr>
<td><strong>Random model</strong></td>
<td>Variance (SE)</td>
<td>Variance (SE)</td>
<td>Variance (SE)</td>
<td>Variance (SE)</td>
</tr>
<tr>
<td>Class level</td>
<td>.040 (.016)*−.000 (.000)</td>
<td>.034 (.017)*−.000 (.000)</td>
<td>.053 (.020)*−.000 (.000)</td>
<td>.031 (.014)*−.000 (.000)</td>
</tr>
<tr>
<td>Student level</td>
<td>.520 (.023)<em>−.168 (.007)</em></td>
<td>.904 (.040)<em>−.440 (.019)</em></td>
<td>.583 (.026)<em>−.227 (.010)</em></td>
<td>.713 (.032)<em>−.344 (.015)</em></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.70</td>
<td>.53</td>
<td>.64</td>
<td>.54</td>
</tr>
<tr>
<td>$-2$ LL for null model and final model and $\Delta -2$ LL ($\Delta df = 9$)</td>
<td>2264.420 − 1075.946 (1188.474*)</td>
<td>2818.950 − 2060.851 (758.099*)</td>
<td>2384.131 − 1385.881 (998.250*)</td>
<td>2577.920 − 1809.776 (768.144*)</td>
</tr>
</tbody>
</table>

Note. $R^2 = (\sigma_{\text{null model}} - \sigma_{\text{estimated model}})/\sigma_{\text{null model}}$.  

*aCompared to the non-treatment group.  
*bReference category = pre-university level.  
*cReference category = grade 10.  
*dReference category = male.  
* $p < .05$.  

q Corresponding relevance.
outcomes are in line with our hypothesis that students’ appraisals of the relevance of history were positively affected to a greater extent in the case-comparison condition than in the separate-case condition.

As expected, history relevance pretest scores proved to be robust predictors of history relevance posttest scores. There were no significant correlations between history relevance posttest scores and educational level, grade, age and historical knowledge. Male students found history less relevant than female students. History outside class significantly predicted all history relevance outcomes, implying that the extent to which students talk about history in extracurricular contexts was positively related to their views on the relevance of history.

Log-likelihood tests showed significant fit for all four history relevance outcomes measures. The explained variance ranged from $R^2 = .53$ to .70, indicating strong explanatory power of the models.

**Students’ SI**

Multilevel models for SI are shown in Table 6. The separate-case condition was not significantly related to any of the SI outcomes, whereas the case-comparison condition showed a small but significant effect on maintained-SI-value (model-based effect size: 0.08, $d_{obs} = 0.18$). This means that the SI of both groups did not differ in terms of attention, engagement, and enjoyment. However, the case-comparison group deemed the lessons more valuable than the separate-case group.

History relevance pretest substantially predicted SI posttest-scores, indicating a strong positive correlation between students’ views on the relevance of history and their interest regarding the lesson unit. No significant relationships were found for educational level, gender, and history outside class. Grade positively correlated with maintained-SI-feelings, implying that grade 10 students considered the course materials more enjoyable and engaging than grade 11 and 12 students. Historical knowledge negatively related to triggered-SI, implying that the lesson unit grabbed less attention from students with a lower knowledge level.

Log-likelihood tests showed significant fit for all four SI-models with explained variance ranging from $R^2 = .11$ to .21.

**Students’ experiences with the pedagogical approach (PA)**

In line with hypothesis 3, the case-comparison condition had a significant negative effect on PA outcome, implying that students in this condition considered the applied pedagogical approach less difficult than students in the separate-case condition (see Table 6); model-based effect size was 0.15 ($d_{obs} = 0.32$, corresponding to a small-to-medium effect). There were also significant correlations for gender (male students experiencing less difficulty with the approach than female students), historical knowledge, and history relevance pretest scores, whereas educational level, grade, age and history outside class were not significantly related to PA. A log-likelihood test showed adequate model fit with an explained variance of $R^2 = .14$.

**Acquiring lesson content knowledge (LCK)**

In line with hypothesis 4, there were no meaningful differences between the case-comparison and separate-case group in terms of knowledge acquisition (see Table 6) as condition had no significant effect on LCK ($t = -0.250, p = .422$). Educational level, grade, gender, historical knowledge, and history relevance pretest scores were significant covariates, meaning, for example, that pre-university students (VWO) performed better than middle-level general secondary students (HAVO) and students with a relatively high level of general historical knowledge performed
### Table 6. Multilevel models for situational interest, pedagogical approach and lesson content knowledge (N = 708).

<table>
<thead>
<tr>
<th></th>
<th>Situational Interest (SI; scale)</th>
<th>Maintained-SI-Value (subscale)</th>
<th>Maintained-SI-Feeling (subscale)</th>
<th>Triggered-SI (subscale)</th>
<th>Pedagogical Approach</th>
<th>Lesson Content Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed model</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>3.026 (.080)*</td>
<td>3.170 (.081)*</td>
<td>3.007 (.096)*</td>
<td>2.903 (.084)*</td>
<td>2.916 (.084)*</td>
<td>20.445 (486)*</td>
</tr>
<tr>
<td>Case-comparison cond</td>
<td>.117 (.074)</td>
<td>.159 (.075)*</td>
<td>.091 (.088)</td>
<td>.094 (.076)</td>
<td>-.219 (.077)*</td>
<td>-.115 (459)</td>
</tr>
<tr>
<td><strong>Covariates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational level</td>
<td>.081 (.079)</td>
<td>.067 (.080)</td>
<td>.094 (.094)</td>
<td>.088 (.083)</td>
<td>-.139 (.083)</td>
<td>1.956 (478)*</td>
</tr>
<tr>
<td>Grade</td>
<td>.152 (.083)</td>
<td>.121 (.083)</td>
<td>.239 (.100)*</td>
<td>.108 (.089)</td>
<td>-.121 (.088)</td>
<td>-.1.152 (467)*</td>
</tr>
<tr>
<td>Age (centered)</td>
<td>-.054 (.052)</td>
<td>-.066 (.053)</td>
<td>-.120 (.065)</td>
<td>.019 (.059)</td>
<td>-.165 (.058)*</td>
<td>.575 (261)*</td>
</tr>
<tr>
<td>Gender</td>
<td>.033 (.042)</td>
<td>.023 (.043)</td>
<td>-.048 (.052)</td>
<td>-.028 (.048)</td>
<td>-.037 (.047)</td>
<td>.232 (210)</td>
</tr>
<tr>
<td>History outside class</td>
<td>-.009 (.006)</td>
<td>-.001 (.006)</td>
<td>-.009 (.008)</td>
<td>-.017 (.007)*</td>
<td>-.023 (.007)*</td>
<td>.205 (032)*</td>
</tr>
<tr>
<td>History knowledge</td>
<td>.441 (.045)*</td>
<td>.505 (.045)*</td>
<td>.454 (.055)*</td>
<td>.346 (.050)*</td>
<td>-.193 (.049)*</td>
<td>.788 (223)*</td>
</tr>
<tr>
<td>Relevance (total pretest)</td>
<td>.491 (.027)*</td>
<td>.527 (.029)*</td>
<td>.723 (.039)*</td>
<td>.589 (.032)*</td>
<td>.555 (.030)*</td>
<td>11.942</td>
</tr>
<tr>
<td><strong>Random model</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class level</td>
<td>.042 (.017)*</td>
<td>.043 (.017)*</td>
<td>.049 (.021)*</td>
<td>.040 (.017)*</td>
<td>.064 (.023)*</td>
<td>3.016 (.915)*</td>
</tr>
<tr>
<td>Student level</td>
<td>.026 (.012)*</td>
<td>.012*</td>
<td>.016*</td>
<td>.012*</td>
<td>.012*</td>
<td>(.529)*</td>
</tr>
<tr>
<td></td>
<td>(.023)*</td>
<td>(.035)*</td>
<td>(.029)*</td>
<td>(.028)*</td>
<td>(.651)*</td>
<td></td>
</tr>
<tr>
<td><strong>R²</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2 LL for null model and final model and Δ -2LL (df = 8)</td>
<td>1538.526–1416.796 (121.730*)</td>
<td>1587.687–1425.544 (162.143*)</td>
<td>1807.939–1720.460 (87.479*)</td>
<td>1662.643–1592.170 (70.473*)</td>
<td>1632.108–1556.167 (75.941*)</td>
<td>3818.513–3692.769 (125.744*)</td>
</tr>
</tbody>
</table>

**Note.** $R^2 = (\sigma_{\text{null model}}^2 - \sigma_{\text{estimated model}}^2)/\sigma_{\text{null model}}^2$.

*Compared to the separate-case condition.

Reference category = pre-university level.

Reference category = grade 10.

Reference category = male.

*$p < .05.$
better than students with a relatively low knowledge level. Male students outperformed female students and grade 10 students underperformed grade 11 and 12 students. A log-likelihood test showed adequate model fit with an explained variance of $R^2 = .21$.

**Conclusion and discussion**

In this study, we examined the efficacy of history teaching about an enduring human issue by means of studying analogous cases from different periods. In both experimental conditions, this way of teaching had a positive effect on students’ appraisals of the relevance of history compared to the relevance perceptions of students who followed the regular history curriculum. As we hypothesized, students’ relevance appraisals were positively affected to a greater extent in the case-comparison condition than in the separate-case condition. The case-comparison group also considered the lesson unit more valuable and had less difficulty with the applied pedagogical approach, which contrasted strongly with the history curriculum students were accustomed to. They did not underperform in terms of knowledge acquisition, even though the focus was on comparison activities and drawing analogies between past and present, whereas learning activities in the separate-case condition aimed at gaining historical knowledge and practicing historical thinking skills. These results are in line with cognitive psychology research literature evincing positive effects of case-based comparison activities and meaningful contexts on learning performances and subject matter value perceptions (e.g., Alfieri et al., 2013; Gentner et al., 2003).

Three limitations of this study should be borne in mind. First, not all classes were randomly assigned to the experimental conditions and operating in a natural educational setting may have been influenced by potential differences between groups. We have reduced selection bias by (a) using multilevel analysis controlling for several background characteristics, (b) determining equivalence between all groups at the pretest, and (c) using a relatively large sample size (Shadish, Cook, & Campbell, 2002; Slavin, 2008). Second, although students in the separate-case group were not actively encouraged to compare cases, it cannot be ruled out that they did make comparisons, even though in educational contexts people are not inclined to compare analogous situations spontaneously (Gentner et al., 2003). Two out of 11 teachers participating in the separate-case condition reported that students occasionally referred to current refugee issues, but, according to instructions, these teachers did not respond and summoned the students to focus on lesson contents. Relatedly, some teachers from the separate-case group were also active in the case-comparison group, and, hence, diffusion of treatments may not be excluded (Shadish et al., 2002). Third, the topic of the lesson unit—migration and integration—referred to current affairs in the Netherlands during the lesson intervention due to Syrian refugees seeking asylum in Europe. This may have affected the outcomes—either in a positive way by triggering students’ engagement or in a negative way by evoking feelings of aversion or saturation. We selected this topic to stimulate engagement and meaning making as students (a) tend to relate the past to the present when they are personally involved (Grant, 2003; Seixas, 1994) and (b) show interest in topics that involve human agency, emotions and morality and allow for personal identification (e.g., Barton, 2008; Den Heyer, 2003). Further research should, however, deploy various enduring human issues—including less morally laden—to test the generalizability of the observed effects in this study.

Four issues concerning the findings of this study need to be discussed. Although the lesson intervention yielded statistically significant effects on students’ appraisals of the relevance of history, effects sizes were small. There are some obvious explanations. The intervention was targeted at making connections between past, present, and future (assuming this would affect students’ relevance perceptions) and not at teaching students about the relevance of history. More direct, explicit teaching about the purposes and functions of history may well sort out larger effects, as indicated by a survey conducted by Haydn and Harris (2010). This explicit relevance approach
seems attractive and deserves further investigation. Furthermore, consistent with other empirical findings (Van der Kaap & Folmer, 2016; Van Straaten et al., 2018), students in the treatment groups, as well as in the nontreatment group, deemed history considerably relevant at the start of the experiment, leaving limited room for improvement; the fact that students had opted for a curriculum including history has probably been of influence. Although the intervention was spread over several weeks and involved pedagogical approaches students were unfamiliar with, its duration was actually relatively short, reducing the chance of generating impact and change in the classroom (Slavin, 2008). Last, measuring interventional effects on students’ history relevance appraisals presupposes a change of opinions and attitudes. Attitude change depends on a complex interplay of multiple factors, such as a person’s need for social acceptance, motivation, the complexity of knowledge underlying existing beliefs or the ability for processing information that might influence those beliefs (Fabrigar, Petty, Smith, & Crites, 2006; Mason, 2001; Petty & Wegener, 1998; Wood, 2000). As both cognitive and affective factors play a role here, focusing on cognitive learning activities—like in this study—does not guarantee attitude modification. Moreover, research has indicated greater stability in attitudes for older than younger individuals (e.g., Alwin & Krosnick, 1991). Therefore, it would be worthwhile to further experiment with this study’s pedagogical approaches in junior secondary education, not only because junior secondary students are presumably more susceptible to attitude change, but also because studies have shown that junior students have lower history relevance appraisals than their senior peers (Haeberli, 2005; Haydn & Harris, 2010; Van Straaten et al., 2018; Wilschut, 2013).

Overall, students in both treatment groups, as well as in the nontreatment group, associated the relevance of history with becoming a citizen and understanding the human condition, rather than with building a personal identity. These results comply with findings from a large-scale European survey on students’ attitudes towards historical consciousness (Angvik & Von Borries, 1997), revealing that, on average, students see more relevance in history for orienting on the present and future than for guiding their individual lives. The results also comply with a Dutch school history experience survey conducted among grade 11 and 12 middle-level general secondary and pre-university secondary students, according to which a large majority believed that history is irrelevant for learning more about the self (Van der Kaap & Folmer, 2016). Given the mean age of participants (about 16 years), our findings are also in line with claims that identity building processes occur late in adolescence and sometimes not even until young adulthood (e.g., Steinberg & Morris, 2001). However, it has been demonstrated in this study that students’ attitudes toward the relevance of history in terms of building a personal identity can be influenced, even when controlling for students’ background characteristics. Given the design and content of the lesson intervention, it seems plausible that the case-comparison teaching approach allowed students to use knowledge of the past to calibrate their views on a current societal issue (migration), thus experiencing ways in which history may affect their personal beliefs. Caution is required here, because the extent to which students used historical knowledge was not measured. Further research should focus on the interdependence between the case-comparison teaching and ways in which students use knowledge about the past to substantiate personal opinions.

It has not been the aim of this study to teach students to make qualitatively sound comparisons between past and present examples of an enduring human issue. It would be interesting to investigate the depth of students’ analogic reasoning, especially to see if they only have an eye for similarities or also take into account differences between the past and the present. Based on literature in the domain of historical thinking and reasoning, educating disciplinary skills and concepts may probably foster student abilities to elaborate academically valid analogies between past and present (e.g., Blow, 2009; Seixas & Morton, 2013; Van Drie & Van Boxtel, 2008). Vice versa, applying the case-comparison approach in history teaching provides ample opportunities for strengthening students’ historical thinking, because comparing past and present events involves
thinking about change and continuity, cause and effect and other so-called meta-concepts that
heuristically underpin the historical discipline (Van Drie & Van Boxtel, 2008).

**Implications for the educational practice**

This study has yielded tools that practitioners and researchers can use to design curricula that
allow students to use knowledge of the past to orientate on the present and the future. Pursuing
this orienting function of history may help students on their path to citizenship; it may also help
tackling the difficulties students have in articulating the benefits of studying the past.

Applying the design principles this study has provided is no sinecure. It requires a reconsider-
ation of goals and methods of traditional teaching history focusing on learning about the past.
A more traditional approach to teaching feudalism, for example, would focus on the replacement
of Roman rule based on public institutions and values by a system of government based on per-
sonal loyalty of a vassal to a lord. Typically, the lessons would deal with the fall of Rome in 476,
the rise and development of the Frankish empire, the coronation of Charlemagne in Rome in
800, and the division of the Carolingian empire between the three sons of Louis the Pious accord-
ing to the Treaty of Verdun in 843. A case-comparison teaching approach would focus on general
mechanisms and concepts underpinning the phenomena of feudalism and vassalage, such as the
personal allegiance in exchange for the protection of someone stronger, a phenomenon still
occurring today in parts of the world where there is insufficient functioning public authority
(e.g., warlords in countries like Somalia and Afghanistan). In such an approach, making compari-
sions would be a core teaching activity to increase students’ understanding of social and political
phenomena. The findings of this study indicate that this type of teaching may potentially affect
students’ perceptions of the relevance of history in a positive way, which is important because
school-subject value awareness has a favorable effect on student motivation and engagement
(Brophy, 1999; Eccles, 2004; Martin, 2003; Pintrich, 2003). To realize this kind of history teach-
ing, more time should be devoted to comparative historical themes and working with conceptual
frameworks. In school assessments and national examinations, students should be tested on their
ability to draw analogies and make comparisons between a range of historical situations. All of
this would open up perspectives on a new type of history education, not only appropriate for the
shaping of responsible citizens of 21st-century democracies, but also solving the problems of
teachers struggling to explain their students why they should learn things from a distant past
seemingly dead and gone.

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### Appendix

Key questions framework for analyzing and comparing refugee cases in past and present times.

<table>
<thead>
<tr>
<th>General</th>
<th>Politics</th>
<th>Economy</th>
<th>Sociocultural</th>
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<tbody>
<tr>
<td>G1) Are the refugee numbers large or small in proportion to the size of the population of the host country?</td>
<td>P1) What kind of conflict forces people to flee?</td>
<td>E1) Are people (also) fleeing for economic reasons (employment opportunities, welfare, future perspectives)</td>
<td>S1) Do religious differences or similarities between refugees and the population in the host country play a role?</td>
</tr>
<tr>
<td>G2) Are the refugees planning to settle permanently in the host country?</td>
<td>P2) Do human rights or humanity play a role in the reception of refugees?</td>
<td>E1) Do refugees provide economic benefits to the host country?</td>
<td>S2) Do differences in habits and behavior play a role?</td>
</tr>
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<td></td>
<td></td>
<td>E3) Does the population in the host country feel economically disadvantaged?</td>
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