

Compatibility between History Textbooks and Historian's Historiography in terms of Historical Reasoning: The Example of Halil İnalçık and Establishment of Ottoman State in Turkish History Education

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To answer the question of how to think historically, the best and most common examples of historical reasoning can be found in historians' historiography. Textbooks, as the most and sometimes even the only used materials by students and teachers in history education, should be in parallel with the writing of history. From this point of view, the research aimed to find out the compatibility of the Turkish history textbooks with historiography in terms of historical reasoning. In the study, Halil İnalçık's article and the relevant parts of the second unit of the 10th grade history textbook were examined on the subject of the establishment of the Ottoman State. Historical reasoning/argumentation is divided into three categories: approaches of reasoning (inductive, deductive), techniques of reasoning (formal, informal) and reasoning procedures (analogical, reasoning for differences, pros-cons, proportional, criterion, modality). The two texts were compared according to these categories. As a result of the research, it was determined that the textbook was compatible with İnalçık's article in terms of reasoning approaches and techniques, but incompatible in terms of reasoning procedures. In addition, it has been determined that the textbook contains less reasoning but more knowledge than the article. In line with this finding, it can be concluded that history textbooks are incomplete in terms of supporting historical reasoning. In this respect, history textbooks need to be examined and improved more comprehensively

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INTRODUCTION

Historical thinking is essential in history teaching and has a unique thinking process, different from other fields (Meier, 2009). Coltham and Fines (as cited in Safran, 1994) state that, students are expected to develop logical judgment via history learning. Drake and Brown (2003) also confirm that students who want to understand history must learn to think historically. Many researchers (Demircioğlu, 2009; Dilek., 2000; 2002; Diriöz, 2006; Köksal, 2007; Langlois & Seignobos, 1937; Shemilt, 1983; Stobart, 1994; Van Drie & Van Boxtel, 2008) emphasize the necessity of reasoning in the field of history while learning the past. During such a process, the relationship between "the events on which the past is based on is passed through a logical filter" (Demircioğlu, 2009, p. 228), and thus historical reasoning is emerged.

Then, how is historical thinking possible with reasoning? Which reasoning skills are necessary for historical thinking? Historical thinking is considered as a subcategory of higher-order thinking skills such as reasoning, conceptualizing, evaluating, and making decisions. Historical reasoning, on the other hand, refers to the purpose of history education and the actions that students exhibit while learning history (Van Boxtel & Van Drie, 2018).

In the relevant literature, the most comprehensive and structured studies conducted by Van Drie and Van Boxtel in 2004 through 2008 demonstrated a six-trait-framework (Van Drie & Van Boxtel, 2004; 2008). Furthermore, Van Boxtel and Van Drie (2018) revised their framework and keeping it same presented with some extensions. The scholars (Van Drie & Van Boxtel, 2008; Van Boxtel & Van Drie, 2018) put forward that their framework, as they stated specifically, is a culture-specific conceptualization and a holistic, social-based activity based on studies conducted in Europe. It is also associated with historical thinking and historical reasoning (Van Boxtel & Van Drie, 2018). On the other hand, Gültekin (2013) introduced and extended their prior studies and re-developed a five-trait framework in the Turkish context; she reduced two traits into one by combining substantive concepts and meta-concepts and converting them under the category of *using concepts*. As a result, she listed the frame of the historical reasoning as asking questions, using concepts, contextualization, using documents, and argumentation. In Turkish language, reasoning expresses a more logical content. When its components are examined, the historical reasoning defined by the researchers, however, meets the concepts of the historical thinking and methodology for Turkish. In this respect, the expression of historical reasoning in Turkish should be perceived as logical reasoning. Therefore, this study accepts the concept in this way.

The studies related to but not specifically on historical reasoning conducted in Türkiye can be categorized under three; from the perspectives of philosophy (Türker, 2004), historical methodology (Erdoğan, 2021), and logical fallacies in the historical texts (Gültekin, 2021). Additionally, there are such

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research studies (Er, 2008; Erdoğan, 2021; Erol Şahin, 2014; Uzun, 2006; Yalansız, 2015) focusing on only one of the historical reasoning skills (e.g., comparison and causality).

One of the aims of the Turkish curricula is "students who have completed primary school gaining the basic level of verbal, numerical and scientific reasoning, social skills, and aesthetic sensitivity that they will need in daily life". For middle and high school, the expression is cited as "individuals who have gained basic skills and competencies in discipline-specific areas" (MoNE, 2018; 2022). In history teaching, students' historical thinking skills aim at improving cognitive abilities such as establishing cause-effect relationships, conceptualization, chronological thinking, and understanding the nature of change and continuity (Köksal, 2007). 2022 The History school curriculum, which will be implemented from the 2023-2024 academic year, is the revised version of the 2018 curriculum. The most significant change in this version has been in historical thinking skills. In the 2018 curriculum, skills such as *chronological thinking, historical understanding, establishing cause-effect relationships, perceiving change and continuity, research based on historical inquiry, historical analysis, and interpretation, and historical problem analysis and decision-making*, and partially *historical empathy* are discussed. In the 2022 curriculum, these skills were re-numbered in six segments and were explained as chronological thinking, historical comprehension, historical analysis and interpretation, research based on historical inquiry, historical problem analysis and decision-making, and historical empathy.

As stated earlier, to understand history, students need to learn to think historically. Demircioğlu (2009) stated that the methods and approaches used by historians while doing the science of history should be used in the history teaching process to gain historical thinking skills. In other words, history teaching should proceed in parallel with the work of historians. Similarly, Dilek (2000) and Güngör-Akıncı (2011) highlighted that the stages of the historian's task should be simplified for the level of students because, according to Bruner (as cited in Ata, 1999), school children can demonstrate scientific and intellectual performance. The difference between a scientist and a student is related to the degree of this scientific activity rather than its type, which requires parallelism valid/necessary for the resources and materials used in the courses.

Among these resources and materials, the most used material one is the textbook; they provide the opportunity to understand the subject, and it should be suitable for the cognitive level of the student (Aslan et al., 2015). It also serves as an important and ready-made source of information for teachers (Çelik, 2020; Karabağ, 2012). Moreover, such materials have started to be distributed free of charge to the students in Türkiye in recent years. The textbooks' function as a primary material continues despite the changes in curriculum because the changes have been mainly for digitalization of such materials but not for the content (Akbaba, 2013). It is seen that interactive versions of the history textbooks accepted in 2021 have also been created and placed on EBA digital platform of MoNE (EBA, n.d.) The history textbook is a student-level form of academic historiography (Çelik, 2020). Köksal and Şahin (2003) recommended that history textbooks should be prepared to reflect the basic logic of history science and give students an idea about the requirements for historical research methods. In other words, history textbooks have to observe academic historiography and the methodical subtleties of the field as one of the first elements that enable students to encounter the principles and presentation style of the field.

Studies on history textbooks show tendencies of various results: Research that embodies whole-textbook evaluation in line with some pre-defined criteria (Aslan et al., 2015; Çelik, 2020; Ercan, 2008; Gök, 2005; Kirez, 2008; Meraç, 2006; Mıratkan Camkıran, 2011; Turan, 2001; Yolartıran, 2022); publications that analyse the specific teaching of certain historical subjects in textbooks (Aksoy, 2016; Aktaş, 2018; Kaçmaz, 2022; Öztürk, 2021; Yılmaz, 2019); and, those that collect opinions about textbook-content from various agents (Akbaba, 2013; Ceylan, 2006; Mintaş, 2015). Accordingly, scholars criticised that the textbooks do not appeal to high-level thinking, and they are insufficient in establishing a causal relationship. They do not enable students to form necessary comparisons; the content does not prioritise to historiography. Researchers also drew attention that they contained contradictory information while dominating a didactic narrative and not developing historiography skills. A final remark was on the fact that textbooks do not allow learners to work on the evidence.

Conceptual Framework

The historical reasoning used in Turkish context (Gültekin 2013; 2019) is a counterpart for argumentation in Van Boxtel and Van Drie's studies. When we look at historical reasoning in terms of logic in Turkish language, it is permeable to put forward a structure as it is in Table 1.

Table 1. Classification of Historical Reasoning

Approaches of Historical Reasoning	Procedures of Historical Reasoning
<ul style="list-style-type: none"> • Inductive Reasoning • Deductive Reasoning 	<ul style="list-style-type: none"> • Analogical Reasoning • Reasoning for Differences • Pros-Cons Reasoning • Proportional Reasoning • Criterion Reasoning • Modality Reasoning
Techniques of Historical Reasoning	
<ul style="list-style-type: none"> • Formal Reasoning • Informal (Postformal) Reasoning 	

There are two approaches of historical reasoning as seen in Table 1. Inductive reasoning is inferring from particulars to universals, from events to laws (Emiroğlu, 2004). In inductive reasoning, the truth in premises is arbitrary for the truth of the conclusion and reinforces it. For this reason, it is conferred that inductive inferences may result in invalid inferences (Batuhan & Grünberg, 1977; Emiroğlu, 2004; Özlem, 2004). Therefore, the results of inductive inferences reveal a tendency and contain possibility rather than expressing certainty (Şen, 2003). It is concluded that since a general principle cannot be reached in the field of history - and history does not seek to find laws - it is not inductive (Aysenver & Barutça, 2003; Collingwood, 2000). However, Collingwood (2000) and Carr (2012) discussed that induction is still used by collecting and describing facts and, in some cases, by making generalizations while historically thinking.

Deductive inferences, which are the other way of reasoning, are "from the universal to the particular or from the general to the general" (Karaçay, 2003; Özlem, 2004). The conclusion and inference are also true in cases where the premise is true or considered proper (Şen, 2003). Hence, deductive reasoning is criticized as a way of reasoning in which new knowledge cannot be produced (Özlem, 2004); that is, it is used as a proof rather than an inference (Şen, 2003). Langlois and Seignobos (1937) state that reasoning in the field of history can give estimates, not a certainty, and that can occur only if the predictions are in the same direction. On the other hand, Şimşek (2008) states that the human mind acquire the information in context deductively as a whole. Cooper and Dilek (2004) also considered deductive reasoning necessary to understand the past. İlhan (2010), finally, argued that deduction and induction should be carried out in a way that supports and follows each other continuously.

Technique of reasoning can be categorized under two headings that is realized as formal and informal. Formal reasoning has a binary logic system of right-wrong and good-bad (Commons & Richards, 2003). It follows the principles such as identity, non-contradiction, the impossibility of the third state, and sufficient reason depending on the rules of logic. It can be considered a one-way, rule-based, and truth-valued reasoning that leaves no room for possibility. When it comes to formal thinking, a Piagetian approach is pre-dominant. Piaget (2004) emphasized that formal thinking is the abstract translation of concrete operations deductively applied to assumptions or propositions. Hallam (1967) reached results parallel to Piaget's approach for mental development to historical thinking and indicated that children could not realize historical thinking as an abstract field of study. Postformal thinking (i.e., flexible, dynamic, and contextual thinking) (Knight & Sutton, 2004), which NeoPiagetian theorists described as an adult-specific thinking, corresponds to informal thinking that is non-formal and can be applied to everyday language and topics. Informal reasoning is different from formal in that accepting all premises and questioning their relation to the result makes it possible to reach a variety of results than a dual judicial system (Yaran, 2011). All Wineburg (1999; 2007), Saye and Brush (2002), and Van Drie and Van Boxtel (2008) stated that the historical perspective is more suitable for informal reasoning.

Procedures for historical reasoning are used in operations and intentional reasoning, and they can be listed as analogical reasoning, reasoning for differences, pros-cons reasoning, proportional reasoning, criterion reasoning, and modality reasoning. The analogical reasoning process is defined as revealing invisible and unknown similarities between two things or events (Emiroğlu, 2004; Şen, 2003), and

comparing similar elements (Ata, 2007; Striker, 2008). In Öner's (1998, p.173) words, "the mind is walking from the private to the private". In this reasoning procedure, the points of similarity between the similar and the associated are determined. An evaluation is made on whether the similarity between the two is substantial or not (Yaran, 2011). Another procedure of reasoning for differences is based on difference that is also carried out like analogical reasoning. However, in this case, a reverse relationship is established; differences are determined; and an evaluation is made accordingly. Van Drie and Van Boxtel (2008) highlighted that information should be examined in terms of similarities and differences to understand the past. Ata (2007), on the other hand, stated that analogies can cause errors and that due to the circumstances of the events in history; differences in the field of history should be emphasized more. One another procedure is pros-cons reasoning. This reasoning is aimed at evaluating the positive and negative, advantageous and disadvantageous aspects of a situation (Striker, 2008), and considering the positive-negative aspects of an event is such a reasoning process. Proportional reasoning, unlike pros-cons, refers to making a comparison between two things in terms of degree. It allows ranking with the grading of the comparisons (Gültekin, 2013) and is usually seen in judgment sentences formed with the term of *more*. The fifth procedures for historical reasoning are called criterion reasoning; and it evaluates a situation within the frame of a pre-determined criterion on the subject (Striker, 2008). It is possible to say that inferences are made over the accepted criterion/criteria, particularly in sentences that express a definite judgment. It is a reasoning frequently used when making evidence-based inferences in the field of history. Finally, procedures of modality reasoning, on the other hand, is the inference in which necessity and probability are stated (Striker, 2008). The use of predicates such as *must, have to, should, maybe* in inferences based on the strength or weakness of the evidence is an example of modality reasoning. Counterfactual reasoning, which can be frequently used in history lessons, even if it is unnecessary or inappropriate (e.g., if the Battle of Manzikert/Malazgirt did not exist, ...), is this type of reasoning (Gültekin, 2013).

The starting point of this study is whether the textbooks, as a source that both students and teachers benefit from in schools where historical thinking is based and are prepared by the historical reasoning of historians in the relevant literature. In this sense, it has been tried to determine to what extent the textbook fits the historian, Halil İnalçık, who is an expert on the subject, in terms of historical reasoning. The study aims to compare Halil İnalçık's doing history on the establishment of the Ottoman State and the tenth-grade history textbook in terms of historical reasoning. Furthermore, the purpose is to determine the compatibility of the textbook with the historian's doing his task. The comparison is limited to the establishment of the Ottoman State, and the following research questions are tried to be answered throughout the study:

Is the history textbook on the foundation of the Ottoman Empire compatible with the historian Halil İnalçık's doing history in terms of approaches of historical reasoning?

Is the history textbook on the foundation of the Ottoman Empire compatible with the historian Halil İnalçık's doing history in terms of techniques of historical reasoning?

Is the history textbook on the foundation of the Ottoman Empire compatible with the historian Halil İnalçık's doing history in terms of procedures of historical reasoning?

METHOD

This study aims to compare the tenth-grade textbook and Halil İnalçık in terms of historical reasoning and to determine whether the textbook is compatible with the historian. In the research, document analysis (Merriam, 2009), one of the non-interventionary data collection methods, which allows research on existing documents, was used, and the textbook and İnalçık's article were compared in terms of historical reasoning on the subject of the establishment of the Ottoman State.

Purposeful sampling was used for the topic, the textbook, and the historian to be compared in the research. For this, people, places, and documents, and the possible representations of important theoretical structures (Cresswell, 2021) are included (Given, 2021). In the study, Halil İnalçık has been chosen as a historian whose article is to be compared. The reason why we chose him is because he is seen as a top expert of historiography both in the world and in Türkiye, and even the term "pole of historiography" is ascribed to him. Halil İnalçık is also the only Republican period historian whose name

is mentioned in the unit titled 'History and Time' in the 9th grade history textbook (Yüksel et al., 2021a). Similarly, the 10th grade history textbook is the one where Halil İnalçık's works are used the most (21 works) and he is cited the most (Yüksel et al., 2021b, p.213). He also made a fundamental change in Ottoman History by changing the established year of Ottoman State from 1299 to 1302, which now is a ground-breaking change for Turkish history. For this reason, the textbook was compared with the historical reasoning in Halil İnalçık's article "The Problem of Establishment of the Ottoman State".

The topic of the establishment of the Ottoman Empire is one of the 10th-grade subjects in the history curriculum. Hence, we examined 10th-grade textbooks. In Turkey, two different textbooks were presented to schools by the Ministry of National Education (Yılmaz, 2018; Yüksel et al., 2021). According to the new program, the interactive form of Yüksel et al. has also been prepared. Therefore, we choose this as the textbook to compare in the research. Besides, MoNE currently offers this book as a 10th-grade textbook on the website.

Although, Halil İnalçık has many significant publications on the establishments of the Ottoman State, when it comes to the selection of the particular article titled *The Problem of the Establishment of the Ottoman State* in an edited book named *Doğu Batı Article 1* by Halil İnalçık is due to a few solid reasons. Firstly, as in his words, "...these articles should be accepted as a synthesis of ... previous scientific researches and a summary of them in a plain language as possible. However, new researches that are deemed important have been added" (İnalçık, 2006, p. 7). In other words, this is the most updated knowledge of İnalçık's that was published. This article was first published in the 7th issue of *Doğu Batı* journal under a special theme 'Akademi ve İktidar' (Academia and Hegemony) in 1999. Second, he also suggests to review his most updated responses to the previous critics for his earlier publication on the topic of the establishment of Ottoman State. İnalçık (2006, p. 130) states in the book's preface as, "today, I recommend the critics based on my old writings on the establishment of the Ottoman State that I published in the 1960s, to read my new researches". A final criterion in selecting this article is that it is more precise and shorter compared to his other publications. Because in the textbook, the subject of the Establishment of the Ottoman State is included in the first eight pages of the 10th grade textbook, 2nd unit titled 'Ottoman Politics from Principality to State', a similarity is grounded between the article chosen and the textbook unit. In this way, it has been tried not to create a big gap between the textbook and the article regarding the pages and details examined.

When we speak of an argument, we understand a chain of reasoning. Each argument contains the grounds or reasons for its conclusion. To analyse the arguments, we look at argument signs in the text. Sometimes reasoning takes place without these omens. For example, Modal words such as 'should, cannot, impossible, necessarily' indicate reasoning. Sometimes the whole sentence can be the result or premise of another reasoning (Fisher, 2018). For this reason, we made the propositions and argument signs of the examples we took from the texts clear; We showed it under the heading 'its logical analysis.' The analysis is done via deductive/theoretical thematic analysis (Braun & Clarke, 2019). This type of analysis allows for justification of theory on the sample the material. In other words, the themes provided by theory are surged through the two texts we chose to review. An adapted version of Braun and Clarke (2019) is presented in Table 2.

Table 2. Procedures of Thematic Analysis

1.	Repeatedly reading two texts
2.	Detecting premises and conclusions of historical reasoning segments in two texts.
3.	Applying the concepts of historical reasoning to the segments from two texts.
4.	Interpreting the segments: extending and parsing
5.	Checking each theme for overlapping and ensuring differentiation for each definition
6.	Repeating stages #2, 3, 4, 5 to ensure credibility of findings
7.	Comparing the findings to two texts to identify compatibility
8.	Writing up the findings and reporting

To ensure credibility in the study, we read both documents many times repeatedly at intervals within three weeks to familiarize content. The analysis was done within the following three weeks, where we detected the segments of historical reasoning in both texts by identifying premises and conclusions. Next, we applied concepts revised and presented in the conceptual study of this paper to the two texts in question. To clarify the chains of premises and conclusions, each segment of historical reasoning was broken into pieces and extended, where necessary. Following this step, we ensured each segment is an

accurate representation of the themes. Before comparing the findings and identifying the compatibility two texts, we made it sure by repeating the analysis as described in Table 2, stages 2, 3, 4, and 5. The analysis of the documents checked for compatibility and reached some results. After compiling the findings, we compared them with the previous research. However, the limited local research enabled us to see to extent that our findings were compatible with international results.

RESULTS

The findings of this paper are categorized under three headings to answer the research questions; approaches, techniques and procedures used in both texts during historical reasoning. First of all, the common points in both texts can be described in a list. Each texts include the topics of Aşıkpaşazade and his first period menakib names; Historians such as Paul Wittek, Mehmet Fuat Köprülü, Pachymeres; Osman Bey's relationship with the Tekfurs; Ghazis and their organizations; Koyunhisar Battle, Iznik and Bursa conquests. Two direct quotations from İnalçık are included in the textbook. One of these quotes is about Osman Bey's comrades and veteran, the other is about the theory of establishment and the Battle of Koyunhisar.

The texts were screened for premises and conclusions of the segments including historical reasoning. Later, the types of historical reasoning existent in the texts were identified. The arguments in the segments were sometimes comprised of a sentence and other times a set of larger discourse. In our findings, one premise formed another's conclusion: one conclusion naturally acted as the following one's premise. Both in İnalçık's article and the textbook unit displayed a series of long propositional chains including interchanging premises and conclusions. The segments presented in tables in the following sections were bold-written. Next, those segments were cut into pieces and/or extended to display the reasoning processes. We sometimes explicitly added hidden premises; we converted complex sentences into simple ones and added more complementary verbs to unite the meaning.

Findings of approaches for historical reasoning

Halil İnalçık included both deductive and inductive historical reasoning in his article. Inductive was more employed than the deductive, which is similar in the history textbook. The ratio of deductive to inductive for each text separately was also similar. As can be seen in Table 3 below, there is a chain of including five inductive reasoning examples. As an illustration, in (A) the events are listed chronologically and a conclusion is reached at the end of the segment. A cause and effect relationship is visible; the result of Turkomans dispersing in the mountain areas was caused by being pushed to the western regions due to the Mongols who invaded Anatolia where Anatolian Seljuks lived. As aforementioned, inductive historical reasoning has the purpose of extending the knowledge and arriving at a new one, and it does not display certainty. Therefore, both textbook and article confirm this piece of information.

Table 3. Samples of Inductive Reasoning

İnalçık Text	Its Logical Analysis
3.1. In the 1230s, the Mongols drove the Turkoman tribes west from the rich pastures of Meraga, Arran, and Mugan in Azerbaijan. Mongolian oppression continued in Anatolia as well; In 1243, the Mongols invaded the Seljuk Sultanate of Anatolia. As a result, the Turkomans were concentrated in the mountainous regions. Towards the end of the XIII century, Ibn Saïd and Byzantine sources mention hundreds of thousands of tent Turkomans in the mountainous region of Western Anatolia from Teke peninsula to Ankara-Eskişehir-Bolu (200 thousand tents in Denizli, 100 thousand tents in Kastamonu, 30 thousand tents in Kütahya). In 1277, the invasion of Anatolia by the Mamluk Sultan Baybars against the Ilkhanids and the Mongol genocide afterwards led to new migrations to the western extremes. Finally, after the Mongolian civil war of 1291-1295 and the Mongolian governor Şülemiş rebellion in Anatolia (1298-1299), the Uç Turkomans, who felt free, fell on the Byzantine lands in Western Anatolia; they established Principalities in the conquered lands. In a short time, this region became a Turkish homeland (p. 130).	In the 1230s, the Mongols deported the Turkoman tribes to the west. Mongolian pressure continued in Anatolia as well. In 1243, the Mongols invaded the Seljuk Sultanate of Anatolia. As a result, the Turkomans are concentrated in the mountainous border regions (inductive) Towards the end of the XIII. century, hundreds of thousands of tent Turkomans settled in the mountainous region of Western Anatolia, from the Teke peninsula to Ankara-Eskişehir-Bolu. Their number is 200 thousand tents in Denizli, 100 thousand tents in Kastamonu, 30 thousand tents in Kütahya region. Ibn Saïd and Byzantine sources recorded this information. In 1277, the Mamluk Sultan Baybars invaded Anatolia. Then the Mongolian cruelly suppressed took place. After these events caused new migrations towards the western 1291-1295 Mongolian civil war took place In Anatolia, the Mongolian governor Şülemiş revolted (1298-1299) As a result of this, the Uç Turkomans felt free. They went to the Byzantine lands in Western Anatolia. They established principalities in the lands they conquered. Free Uç Turkomans went to Byzantine lands in Western Anatolia. They established principalities in the lands they conquered. These events took place in a short time. As a result, this region has become a Turkish homeland.

Textbook Text	Its Logical Analysis
3.2. The theories put forward by historians working on the establishment of the Ottoman Principality differ. Especially Paul Wittek (Vitek), Mehmet Fuat Köprülü and Halil İnalçık put forward important theories about the establishment of the principality. Comparing these theories is important because the lack of relevant sources has led historians to make inferences by comparing the available sources. According to the generally accepted understanding, the Ottoman Principality was established in Western Anatolia, in a region called Bithynia (p. 53).	Historians conducted studies on the establishment of the Ottoman Principality. The ideas put forward by historians differ. Paul Wittek, Mehmet Fuat Köprülü and Halil İnalçık are historians who put forward ideas. The theories of these historians regarding the establishment of the principality are particularly important. These theories need to be compared Resources on the subject are insufficient Historians compare and deduce available sources. According to the majority of these inferences, the Ottoman Principality was established in Western Anatolia, in a region called Bithynia.

In Table 4, deductive reasoning examples are presented; one from İnalçık, two from the textbook. First the conclusions are displayed, and then supporting examples and/or evidence are listed. The examples in the table are found out rather for providing evidence.

Tablo 4. Samples of Deductive Reasoning

İnalçık Text	Its Logical Analysis
4.1. In the old Ottoman narration, it is claimed that a sermon was read in the name of Osman in Karacahisar in 699/1299, so that he was an independent ruler at this date. In Islamic state law, a person's reign is <i>possible</i> if his name is mentioned in the Friday sermon and at the same time struck on a silver coin. There is no mention of silver coins in the narration.... According to numismatists, the first Ottoman coin was Orhan's coin dated 1357 (p. 123).	The establishment of the Ottoman Principality was not in 1299. In 1299, Osman Bey was claimed to be an independent ruler. In the old Ottoman narration, it is stated that a sermon was read in the name of Osman in Karacahisar in 1299. It is necessary to look at Islamic state law In Islamic state law, there is a requirement for a sermon and a silver coin for the rulership. The sermon is mentioned in the narration There is no mention of silver coins in the narration. According to numismatists, the first Ottoman coin belongs to Orhan. The first coin is dated 1357.
Textbook Text	Its Logical Analysis
4.2. Osman Bey did not follow a random conquest path and realized his conquests in two stages. First of all, he took control of the roads and surroundings of the region he wanted to conquer and tried to surround his target without any reaction. In the second stage, the main goal was to go over it and ensure the conquest of the region. Before the conquests, he directly contacted the people of the region and tried to make them adopt the Ottoman hegemony (p. 55).	Osman Bey did not follow a random route of conquest. Osman Bey realized his conquests in two stages. Before the conquests, he had direct contact with the people of the region. He tried to impose the Ottoman hegemony on the people of the region. He took control of the roads and surroundings of the region he wanted to conquer. Then he went on the main target He conquered the region.
4.3. While the Ottoman Empire followed a policy of expansion towards Byzantium, it sometimes followed the path of conflict and sometimes reconciliation. For example, Köse Mihal -Tekfur of Harmankaya- showed great benefits by entering the service of the Ottomans and became one of Osman Bey's closest friends in arms (p. 57).	The Ottoman Empire followed a policy of expansion towards Byzantium. Enlargement sometimes followed the path of conflict and sometimes reconciliation. An example of reconciliation is that Köse Mihal - Tekfur of Harmankaya- entered the service of the Ottomans.

Findings of techniques for historical reasoning

Halil İnalçık employed informal historical reasoning throughout whole article. No examples formal techniques are observed. In the textbook, on the other hand, a few formal historical reasoning techniques were seen. This is due to the fact that the textbook is a pedagogic material. We observed some informal examples as well, which is a positive perspective for diversity of the textbook including both techniques.

Table 5. Samples of Formal Reasoning

Textbook Text	Its Logical Analysis
5.1. Two different views have been put forward regarding the origin of the dynasty that founded the Ottoman Principality. The first of these; It is a rumor that Ertuğrul Ghazi's father is Süleyman Shah. The second is the generally accepted view that his father is Gündüz Alp (p. 52).	Two different views have been put forward regarding the origin of the dynasty that founded the Ottoman Principality The first of these; It is a rumor that Ertuğrul Ghazi's father is Süleyman Shah The second is the rumor that his father is Gündüz Alp The rumor that Gündüz Alp is more accepted

Findings of procedures for historical reasoning

Among the procedures listed in Table 1, Halil İnalçık utilized criterion historical reasoning procedure the most. Second most used procedure by him is modality (obligatory and possibility) historical reasoning. Analogical, reasoning for differences, and proportional are also benefited from to a lesser degree. Yet, pros-cons historical reasoning procedure is not documented. However, the textbook never employed pros-cons and analogical reasoning procedures. Rest was benefited from though none were pre-dominant over another.

Table 6. Samples of Analogical Reasoning

İnalçık Text	Its Logical Analysis
6.1. Nökerlik is a basic institution in Turkish-Mogolian society; a combat unit appears around the leader at once, that is, with a ritual oath. Whoever gives the Anda swears that he will faithfully serve the chief until death. This institution can be compared with the Commendation institution in the Western feudal society (p. 135).	Nökerlik is a basic institution in Turkish-Mogolian society; Nökers unite around a leader These are a combat unit They enter the combat unit with a ritual oath The name of this ritual oath is Anda Whoever gives the Anda swears that he will faithfully serve the chief until death. In the western feudal society, there is the institution of Commendation. This institution is comparable to the Commendation institution
6.2. The narration means that Osman's conquest of Karacahisar was not an attack against an tribune of the Sultan, so it was not a rebellion against the sultan. This style of interpretation was also used in the question of Osman's independence. Osman punished a rebel who rebelled against Islam and achieved a gas attack with his own sword (p. 133).	Osman Bey conquered Karacahisar According to the narration, the Tekfur of Karacahisar attacked a tribune of the Sultan. Karacahisar broke the agreement with the sultan. In consequence of Osman Bey did not rebel against the Sultan. The narrative emphasizes this event Osman punished a rebel. These situation is reasonable about Osman's independence This style of interpretation was also used in the issue of Osman's independence. Both narratives have a similar interpretation.

Table 6 exemplifies how Halil İnalçık employed analogical reasoning in his article. While doing this, he was rather subtle; he avoided from certain significant statements and manages it at a very careful manner. Instead of using *as* and *like* mostly benefited from analogical reasoning, he benefits from modality procedure, for instance by using *can be compared*, and softens the conclusion. In the textbook, conversely, analogical procedures are not observed. This might be as a reflection of Ata's (2007) proposition that analogies might result in errors. As a conclusion, the textbook and its writers along with the historian consider this perspective.

Tablo 7. Samples of Reasoning for Differences

İnalçık Text	Its Logical Analysis
7.1. Osman's entitlement to the khanate is based on his success in gaza, his right to the sword, and the narration at this point conflicted with returning to an Islamic principle. Osman could only gain the title of Ghazi with his success as a gaza. The first hagiography from İshak Fakih/Yahşi Fakih often refers to him as Osman Ghazi, we find his title of khan only in the Aşpz. narrative (Aşpz. he started to write his history in 1474). (p. 126).	In the narration of Aşıkpaşazade, Osman's entitlement to the khanate is based on his success in gaza. With this statement, the rumor has contradicted As a result of the success of Gaza, the title of Ghazi can be earned. The first hagiography from İshak Fakih / Yahşi Fakih often refers to him as Osman Ghazi, Only Aşıkpaşazade used the title of Khan. Aşıkpaşazade is not a period source, he started to write his history in 1474.
7.2. The history of the Ottoman Empire examines how and under what conditions the Ottoman Empire became a superior political power in Anatolia and the Balkans. The problem of the emergence of the Ottoman Empire is related to explaining how the first political nucleus emerged under the leadership of Osman Ghazi in the Seljuk-Byzantine "Uc" (serhad) region (p. 126-127).	Ottoman Empire and Ottoman Empire are related to different topics The history of the Ottoman Empire examines how and under what conditions the Ottoman Empire became a superior political power. The problem of the emergence of the Ottoman Empire is related to explaining how the first political nucleus emerged under the leadership of Osman Ghazi in the Seljuk-Byzantine "Uc" (serhad) region.
Textbook Text	Its Logical Analysis
7.3. Two different views have been put forward regarding the origin of the dynasty that founded the Ottoman Principality. The first of these; it is a rumor that Ertuğrul Ghazi's father is Süleyman Shah. The second is the generally accepted view that his father is Gündüz Alp (p. 52).	Two different views have been put forward regarding the origin of the dynasty that founded the Ottoman Principality. The first of these; it is a rumor that Ertuğrul Ghazi's father is Süleyman Shah. The second is the rumor that his father is Gündüz Alp. The rumor that Gündüz is Alp is more accepted.
7.4. While the Ottoman Empire followed a policy of expansion towards Byzantium, it sometimes followed the path of conflict and sometimes reconciliation. For example, Köse Mihal - Tekfur of Harmankaya- showed great benefits by entering the service of the Ottomans and became one of Osman Bey's closest friends in arms (p. 57).	The Ottoman Empire followed a policy of expansion towards Byzantium. Enlargement sometimes followed the path of conflict and sometimes reconciliation. An example of reconciliation is that Köse Mihal - Tekfur of Harmankaya- entered the service of the Ottomans.

Reasoning for differences has become the most similar procedure for both texts. The textbook benefited from the controversial topics where İnalçık wrote about in his article. Furthermore, the textbook presents procedures of reasoning for differences on such issues.

Tablo 8. Samples of Criterion Reasoning

İnalçık Text	Its Logical Analysis
8.1. "...We determined the historical event that Osman Bey became a charismatic dynasty founder as follows: Osman's victory of Bapheus (Koyunhisar) on 27 July 1302....In Yalak-Ova, in the Hersek-Dili locality near Yalova, against a Byzantine imperial army. As the contemporary Byzantine historian Pachymeres states, he elevated him to the status of the most famous Ghazi Bey in Anatolia in this frontier region up to Kastamonu"(p. 122)	Osman Bey won the Koyunhisar victory on 27 July 1302. It is necessary to look at contemporary sources (criterion) Pachymeres is a contemporary source (criterion) Pachymeres told victory is won Pachymeres said that after this victory, Osman Bey became a famous Ghazi in the frontier region. Osman Bey's fame in the frontier region makes him strong (criterion) An empowered <i>bey</i> gains competence <i>Osman Bey</i> also gained competence. So the Koyunhisar victory is the historical event in which <i>Osman Bey</i> became a charismatic dynasty founder

<p>8.2. The Tekfur of İnegöl complained to the Tekfur of Karacahisar, and the Tekfur took action to punish this attack; Thus, a situation contrary to the ahdnâme made between the Seljuk sultan and Tekfur emerged. Here, the Menâkıbname clearly tries to legitimize Osman Ghazi's action. By acting against Osman, Tekfur became a rebel according to the dar al-ahd rules of Islam, the war against him is legitimate (p. 133)</p>	<p>The Tekfur of İnegöl filed a complaint with the Tekfur of Karacahisar. Tekfur took action to punish this attack. Thus, a situation contrary to the ahdnâme made between the Seljuk sultan and Tekfur emerged. By acting against Osman, Tekfur became a rebel according to the dar al-ahd rules of Islam. War against him is legitimate because the deal is broken Here, the Menâkıbname clearly tries to legitimize Osman Ghazi's action.</p>
<p>8.3. The Turkoman warriors with red caps running to Gaza and booty will form the Bey's army under the name of pedestrian with a new organization in the time of Orhan Ghazi, they will wear white börk instead of red börk (white color means nobility in Turks, black söğük (bone) common people, <i>white söğük</i> noble class) (p. 136)</p>	<p>There are Turkoman warriors in <i>red börk</i> This is the purpose of their battle for gas and loot. A new organization was formed in the time of Orhan Ghazi. In organization, these Turkoman warriors formed the brainless army. They wore a white börk White color signifies nobility in Turks. Therefore, these Turkoman warriors were considered as nobles.</p>
Textbook Text	Its Logical Analysis
<p>8.4. The works left by Byzantine historians Pachymeres (Pakimires), Nikephoros (Nikeforos) and Kantakouzenos (Kantakuzen) and Arab travellers, geographers or historians İbn-i Batuta, el-Ömerî, İbn-i Said and İbn-i Haldun shed light on the period. However, this information is not enough to write the establishment of the Ottoman Empire (p. 52).</p>	<p>In the Works left by Byzantine historians Pachymeres (Pakimires), Nikephoros (Nikeforos) and Kantakouzenos (Kantakuzen) and Arab travellers, geographers or historians İbn-i Batuta, el-Ömerî, İbn-i Said and İbn-i Haldun there is information about the Ottoman establishment period. But this information is not enough to write the establishment of the Ottoman State.</p>

Criterion historical reasoning procedure has become the most used historical reasoning by Halil İnalçık. It is not used by itself, but also combined with other procedures throughout his article. Nevertheless, the textbook does not show such a tendency of utilizing criterion reasoning as the most, but rather in a similar rate with others. Table 8 above, shows an example of how the textbook benefited criterion historical reasoning procedure. Yet, the criterion is not explicit but missing. The conclusion is certain, yet how the writers arrive at this result is unclear. On the other hand, the same topic in İnalçık's article contains the criterion explicitly and significantly.

Tablo 9. Samples of Proportional Reasoning

İnalçık Text	Its Logical Analysis
<p>9.1. With the victory of Bapheus (Koyunhisar), Osman rose to the status of a charismatic Ghazi Bey in the eyes of alps, ahis and all Turkoman people in the whole region, and his son Orhan became the head of the principality without objection after him. For this reason, we think that it would be <i>more appropriate</i> to determine the actual establishment date of the Ottoman Empire as 27 July 1302 (p. 123).</p>	<p>With the victory of Bapheus (Koyunhisar), Osman rose to the status of a charismatic Ghazi Bey in the eyes of alps, ahis and all Turkoman people in the whole region. His son Orhan later became the head of the principality without objection. Being in power without objection shows that Osman Bey is satisfied (criterion) Then it is <i>more appropriate</i> to accept the victory that provides this power as the date of establishment (Measured and Proportional reasoning)</p>

Textbook Text	Its Logical Analysis
9.2. According to the <i>generally</i> accepted view, the Ottomans; He is a member of the Kayı Tribe of the Günhan Line of the Bozok Branch of the Oghuzs. The Ottomans claimed that they belonged to the Kayı Tribe <i>most intensely</i> during the Murad II began to emphasize it during his time (p. 53).	Ottomans; there is the opinion of the Oghuzs that the Günhan Line of the Bozok Branch was a member of the Kayı Tribe. This view is the generally accepted view. The Ottomans emphasized this Most intense they emphasized during the time of Murad II

Proportional reasoning is utilized more in the textbook compared to the article of İnalçık. The textbook bases its reasoning on the quantitative data whereas İnalçık on qualitative. One might conclude that this is due to the fact that the historian based his facts on the documents, while the textbook on the interpretations.

Tablo 10. Samples of Modality Reasoning

İnalçık Text	Its Logical Analysis
10.1. The old menakıbnames narrations told by Âşık Paşazâde comes from Ishak Fakih, the imam of Orhan. The Imam is <i>probably</i> in a position to get close information about the events of the Osman period (p. 122).	Âşık Paşazâde narrated the old menakıbnames narrations Old menakıbnames comes from Ishak Fakih, the imam of Orhan. Ishak Fakih is an imam of Orhan Bey, <i>He is probably</i> in a position to get close information about the events of the Osman period.
10.2. In a Muslim city, it is <i>obligatory</i> to appoint the authorized persons, imâm, hatîb and kadı, for the fulfillment of religious services and the conduct of affairs according to Islamic law. But appointing these persons is only within the authority of the sultan; For this reason, Imam Tursun Fakih, who was with Osman at that time, reminds him that as an Islamic legal scholar, permission should be obtained from the Sultan (p. 126).	In a Muslim city, it is obligatory to appoint the authorized persons, imâm, hatîb and woman, for the fulfillment of religious services and the conduct of affairs according to Islamic law. According to Islamic law, appointing these persons is only within the authority of the sultan. There is Imam Tursun Fakih next to Osman. Tursun Fâkih is an Islamic legal scholar Tursun Fakih reminded him of the need to get permission from the Sultan. It is not stated in the narration that permission was obtained from the sultan. It is said that Osman made the appointment.
10.3. The Turkoman <i>ghazi</i> leader Osman, who did not know the intricacies of Islamic law, did not need the sultan's permission. He is of the opinion that he has the authority to appoint kadı and hatîb. The title of kadı and hatîb are given to Tursun Fakih, and he cites Osman for name in the Friday sermon, so one of the necessary conditions according to Islamic sovereignty law, the mention of Osman's name in the sermon is realized. However, according to the same legal conditions, his name <i>should</i> have been on the silver coin (p. 126).	The Turkoman ghazi leader Osman, who did not know the intricacies of Islamic law, did not need the sultan's permission. He is of the opinion that he has the authority to appoint kadı and hatîb. The kadı and hatîb are given to Tursun Fakih, he also cites Osman for name in the Friday sermon, Thus, one of the necessary conditions according to Islamic sovereignty law, the mention of Osman's name in the sermon is realized. However, according to the same legal conditions, his name should be on the silver coin. But there is no silver coin (Here is the inference in a situation where there are no other options in the context of the previous reasoning)
10.4. Turkoman tribes wanted to go to the grassy plateaus in the mountains in Bithynia. The whole region up to Sakarya, including the Tekfur of Bilecik, was considered Darü'l-Islam, and according to the narration, the tribe under Osman could freely migrate between the Domaniç (Domalic) highland and the Söğüt winter resort 25 km northwest of Eskişehir. It may be true that the Seljuk Sultan gave the region a homeland to this tribe (perhaps through the Eskişehir Seljuk governor) (p. 132).	The Turkoman tribes wanted to go to the grassy plateaus in the mountains in Bithynia. The whole region up to Sakarya, including the Tekfur of Bilecik, was considered Dar al-Islam. According to the narration, the tribe subject to Osman could freely migrate between the Domaniç (Domalic) highland and the Söğüt winter quarter, 25 km northwest of Eskişehir. For this reason, the rumor that the Seljuk Sultan gave the region a homeland to this tribe may be true perhaps through the Eskişehir Seljuk governor
10.5. The narration claims that at this stage, that is, in 1288, he officially became a subordinate of the Seljuk Sultan. This record, which should belong to the first text of the old narration, may again be an argument put forward to legitimize Osman's situation (p. 133).	The narration claims that at this stage, that is, in 1288, he officially became a subordinate of the Seljuk Sultan. This record, which should belong to the first text of the old narration, may be an argument put forward to legitimize Osman's situation.

10.6. During the Seljuk period, Danishmendnâme represents the Anatolian Turkoman version of the Ghazis epepe. Ottoman Ghazis embraced this tradition. The Ottoman society and the establishment of the Ottoman State cannot be understood without understanding the Ghaza traditions and organizations (p. 136).	During the Seljuk period, Danishmendnâme represents the Anatolian Turkoman version of the Ghazis epepe. (criteria) Ottoman Ghazis embraced this tradition. The Ottoman society and the establishment of the Ottoman State cannot be understood without understanding the Ghaza traditions and organizations.
Textbook Text	Its Logical Analysis
10.7. People such as Ahmedî, Enveri, Ruhi Çelebi and Karamani Mehmet Pasha also genealogised confirming this. The fact that Ertuğrul Ghazi's eldest son is named Gündüz also supports this. <i>Maybe</i> the Legend of Suleyman Shah; It was put forward to prove that the Ottomans were heirs to the Turkish Seljuks (p. 52).	People such as Ahmedî, Enveri, Ruhi Çelebi and Karamani Mehmet Pasha also genealogised confirming this. The fact that Ertuğrul Ghazi's eldest son is named Gündüz also supports this. Maybe the Legend of Suleyman Shah; It was put forward to prove that the Ottomans were heirs to the Seljuks of Turkey.
10.8. Since the events cannot be observed directly in historical studies, the historian uses the evidence and documents left behind the events. In evaluating the evidence, history makes use of various sciences. Historical information <i>may also change</i> with newly found evidence and documents. Each new information and document to be found as a result of research can <i>supplement</i> the existing information, make it <i>more understandable</i> or <i>completely change</i> it (p.54).	Since the events cannot be observed directly in historical studies, the historian uses the evidence and documents left behind the events. In evaluating the evidence, history makes use of various sciences. Historical information <i>may also change</i> with newly found evidence and documents. Every new information and document to be found as a result of research can <i>complement</i> existing information, These can make it <i>more understandable</i> them or these can <i>completely replace</i> them
10.9. In the process leading up to the establishment of the Ottoman Principality, leaders such as Aygıt Alp, Tuğut Alp, Konur Alp, Hasan Alp, Akça Koca, Samsa Sergeant played an important role. Over time, these Ghazis, who became Osman Ghazi's comrades, enabled him to become the most successful gaza leader at the extreme, as the Byzantine historian Pachymeres noted. Edebali, one of the most respected dervishes in the region, also complimented Osman Ghazi and said that he received the title of leader of the gaza from Allah. In addition, according to Köprülü, the fact that he harmoniously united groups such as Ghaziyân-ı Rûm, Ahîyân-ı Rûm, Abdalân-ı Rûm and Bâciyân-ı Rûm was one of the factors that made Osman Ghazi come to the fore. These developments <i>can be considered</i> as Osman Ghazi's important steps towards establishing hegemony in the region (p. 56).	Uc leaders played a role in the establishment of the Ottoman Principality These are referred to as Ghazis. These Ghazis are Osman Ghazi's comrades. Thus wrote the Byzantine historian Pachymeres. Sheikh Edebali is a respected dervish in the region. He complimented Osman Ghazi. Köprülü said that Osman Ghazi united groups such as Ghaziyân-ı Rûm, Ahîyân-ı Rûm, Abdalân-ı Rûm and Bâciyân-ı Rûm in harmony. This harmony driven forward Osman Ghazi These <i>can be considered</i> as important steps to establish hegemony.
10.11. According to Halil İnalçık, the Battle of Koyunhisar (Bafeus) on 27 July 1302, which gave Osman Ghazi power and prestige, should be accepted as the actual founding date of the Ottoman Principality. Because trying to explain the establishment of a great state like the Ottoman Empire with some legends is to move away from being scientific (p. 58).	Halil İnalçık says that the Battle of Koyunhisar (Bafeus) on 27 July 1302 gave Osman Ghazi power and prestige. Therefore, this date should be accepted as the actual founding date of the Ottoman Principality. Other determined dates are based on legends. It is not scientific to try to explain the establishment of the state with some legends.

İnalçık commonly employed modality and criterion procedures. Moreover, he utilized obligatory/necessity more than possibility. This is just the opposite for the textbook.

CONCLUSION and DISCUSSION

The history textbook analysed in this study is compatible with the utilisation of historical reasoning on the establishment of the Ottoman State with İnalçık's article. Both texts preferred inductive reasoning the most. Also, both texts employed two approaches equally in ratio. The article by İnalçık includes both inductive and deductive reasoning by no missing premises. Therefore, we do not document any problems regarding the issue. Yet, this is just the opposite in the textbook. This requires more studies evaluating the fallacies existing throughout the textbook in question.

The textbook is compatible to a large extent with İnalçık's in terms of the techniques used for historical reasoning. Halil İnalçık used informal reasoning in his article. The textbook includes the examples of formal historical reasoning. It may be concluded that the textbook displays appropriate reasoning

techniques for the students' cognitive levels. İnalçık's employing informal reasoning might be interpreted as historical thinking is informal (Saye & Brush, 2002, Van Drie & Van Boxtel, 2008).

The important difference between the textbook and the article is the use of historical reasoning procedures. İnalçık uses the most criterion reasoning procedures where he combined some of them with the others. The textbook, on the other hand, does not display a difference between the rates of utilizing various procedure types. Regarding this issue, there is incompatibility between the textbook and the article. Criticism on not giving enough care for writing a scientific history (Yolartrın, 2022), not including skills for doing history (Kaçmaz, 2022), and hindering learners process the evidence in history textbooks (Kibar, 2019) are partially supported via this study. For this reason, working through evidence and caring for historiography requires evolution with some criteria. It is our interpretation that the textbook analysed in this study is not compatible with İnalçık's article.

To a very diminishing degree, analogical reasoning is employed in both texts. The only non-emergent historical reasoning procedure is pros-cons. This is because of the topic chosen in both texts. This tendency in the texts reviewed for this research is also another source for compatibility.

The most significant finding out of this piece of research is that the frequency of utilizing historical reasoning both in the textbook and İnalçık's article. In the article, we found only two paragraphs that do not contain reasoning but only presenting the information. The textbooks, though, presents more segments to inform rather than historical reasoning. The content of the textbook is compatible with the written history. Yet, the information was not processed with the historical reasoning, and thus it stays but itself alone. We conclude that findings from the previous research studies criticising history textbooks are for memorization and the context is condensed (Meraç, 2006); they do not allow student to process the given evidence (Ercan, 2008), nor they do support the skills for doing history (Kaçmaz, 2022).

This paper focuses on a very different topic compared to others studying in the same field, i.e., historical reasoning/argumentation. Another significance of the current study is about utilizing a historian's historiography to evaluate history textbooks for historical reasoning. Moreover, we have not come across any studies conducted on the evaluation of 2021 published history textbooks. This hinders having a comparative perspective for seeing similarities and differences between the previously used school textbooks in Türkiye. Therefore, we had to evaluate findings in line with the studies done on the previous years' textbooks. Studies analysing and evaluating textbooks published and used in 2021 would yield beneficial results to identify quality of those textbooks.

The study is limited to a single topic, a single article by Halil İnalçık, and a part of the textbook. The pros-cons reasoning procedure did not find in this study. We interpreted this situation as arising from the subject we chose. Pros-cons reasoning refers to comparing the effects of a situation. The topics such as battle or peace's positive and negative effects fit this reasoning procedure. Therefore, comparative studies should be conducted on such topics. Thus, our findings will become more apparent thanks to the results of these studies.

Declarations

Conflict of Interest

No potential conflicts of interest were disclosed by the author with respect to the research, authorship, or publication of this article.

Ethics Approval

No ethical approval is required for this research as the researcher used the document for the data sources.

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The study was conducted and written by the researcher herself alone.

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