Research Article

Historical Semiotics

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Forgetting history is a social phenomenon that contradicts the ideal of a living commemorative culture. Historical knowledge is quickly forgotten by many students, yet the younger generations in particular are confronted with numerous discourses on history that are determined by a shift to the right. This essay explores possible synergies for history education in semiotics and attempts to develop an epistemology that would be methodologically meaningful in the theory of education in history.

Introduction

The focus on history education in the Federal Republic of Germany reveals ambiguous findings. On the one hand, the core curricula of the federal states assign history a key role in political education.[1] This correlates with the culture of remembrance, which has been considered indispensable for political culture in Germany since the era of Willy Brandt.[2] The narrative of historical responsibility is still an integral part of historical discourse and political representation.[3] On the other hand, in teaching practice, fewer and fewer lessons are being allocated to the subject of history.[4] Instead, the subject "social studies" is being established in lower secondary schools, which is supposed to unite history, politics and economics under one roof.[5]

There is evidence from representative studies that basic historical skills often fail to develop under these conditions.[6] In addition, there is an increasingly measurable ignorance of history or historical amnesia among German pupils, for which there is a variety of explanations. One of these explanations relates to the omnipresence of the Nazi era in history lessons. Many young people find this topic to be burdensome. At the same time, pictures of school classes having fun during a visit to a concentration camp are appearing more and more frequently on social media. This corresponds to a rightward shift

 doi.org/10.32388/IXBMAN

in discourse in politics and the media. Historical education is unable to compensate for such a shift to the right.

It is precisely in the field of contemporary affairs that the subject of history is experiencing an irreversible change: the eyewitnesses who helped bringing history to life via their testimonies and who could be interviewed are becoming increasingly rare. With the loss of historical witnesses, contemporary history as a school subject is also being transformed. Reflecting on these issues with reference to history education means becoming aware of the epistemology of historical sources, their de-coding and interpretation.

This reflection leads to semiotics, the attractiveness and mediation potential of which is documented by the work of Umberto Eco, in relation to history education in particular. Eco succeeded in popularising history among young people.[7] It no longer seems outlandish that historical semiotics may have something to do with history education, when considering the sign-like nature of the communication we conduct interculturally and intercontextually. In the framework of a "Children's University" (*Kinder-Uni*)[8], a university lecturer speaks to a young audience about the research. In doing so, there is no need to use a simplified language. What matters is a certain level of abstraction, which enables the exchange of information on both sides. On this level, various historical sources can be interpreted in such a way that contemporary references are made on both sides. The discipline of history can hereby possibly profit from synergistic effects that are inherent in the sign-like nature of communication. As semiotics, history education can then be conceptualised as a communicative space. The following section will outline the structure of this space. In the following, a connection between semiotics and communications about history between historians, history teachers, their students and various interested parties will be shown. For this purpose, semiotics is provided with the designation "historical".

Historical Semiotics and its original context

The term "historical semiotics" has been variously used by scholars since the late 18th century.[9] Johann David Grau, for example, a renowned physiologist in his day from Jena, divided semiotics into a "historical" and a "philosophical" one.[10] Moreover, the term "historical semiotics" can also be found in theatre studies.[11] In history, however, in contrast to "historical semantics"[12], this term is unknown, or rather unusual. "Historical semiotics" also occasionally appears in German philology

papers such as those dealing with the type of text known as *Konfessionelles Flugblatt in der Reformationszeit*. However, the term is utilized without a comment and without any theoretical underpinning, being neither clarified nor explained.[13] Only once does this term appear in the research context of a historian. However, the article "Geschichtssemiotik", by Gerhard Theuerkauf[14], walks on the thin ice in terms of methodology and theory since the author confuses method or instruments of cognition (*Er-kenntnisinstrumentarium*) with object of study (*Untersuchungsgegenstand*) when he talks about "sources" as means for acquiring knowledge about history.[15] In fact, the scholarly study of a historical object of study (*Untersuchungsgegenstand*) and the associated object of cognition (*Erkenntnisobjekt*) requires a well-founded theoretical and methodological system that is created and determined by both theory and terminology. The renunciation of literary and everyday language is an prerequisite for the realization of this very system. In practice, this means a strict omission of metaphors, since they are lexemes for which the terminological postulate of figurative reference (*Postulat der Gegenstandsbindung*)[16] does not apply. As a consequence, historians have to refrain from using the humanistic metaphor of *source* (*Ad fontes!*) and instead turn towards the linguistic term *text* when referring to the object they labelled as *source* over the past centuries. It is not on *sources* but on *texts*, or, more precisely, on *historical signs* on which the hermeneutic decoding process is carried out – something a modern recipient can only handle with the help of a scientific set of of epistemological instruments.

New context of use

In the present case, the term "historical semiotics" refers to a theory determined by evolutionary epistemology[17] and the semiotic triangle of reference[18] for the purpose of observing and "visualizing" cultural phenomena. Observing and "visualizing" cultural phenomena means that they leave "traces" or "imprints" in language which can be "read" on three dynamically interdependent levels, i.e. ontic, epistemic and communicative. Thus, language represents a medium through which the systems and entities "culture" and "human", which are understood as being dynamic, can be made observable and therefore researchable. In consequence, with regard to the common medium language, linguistics represents a first and natural ally of an anthropocentric history.

Historical semiotics is therefore to be regarded as a methodological apparatus determined by epistemology, systems theory, and semiotics as well as cognitive linguistics. Its intended purpose is to allow the subject of cognition (*Erkenntnissubjekt*) a deeper study of historical signs within a framework

of strict scholarly rules in conformity with the criteria of verifiability, falsifiability, and reproducibility as set out by the philosophy of science, and also in accordance with the basic tenet of fallibilism and the concept of textual research field (*Textwissenschaft*) as an "emerging" or "developing science" as specified.[19] The system boundary separating the philological system (*textwissenschaftliches System*) from the outside world – whose existence is independent from that system – indicates that results and findings regarding the world and the objects therein (hereinafter corresponding to historical semiotics) do not necessarily have to match the true nature of the world and objects as a whole, or, even *cannot at all* match their true nature. Historical semiotics therefore takes up the position of critical rationalism[20] and refrains from making positivist truth claims[21] about the science system and its elements.[22] Instead, it takes on the challenge of the fallibilistic and epistemological problem of reality.[23]

Epistemology and historical semiotics

Historical semiotics is a theory particularly germane to history, linguistics, philology and cultural studies. It organizes all activities of an historian as well as those of every subject of cognition (*Erkenntnissubjekt*) dealing with texts produced in various periods around the study of the "sign". In terms of terminology and epistemology, the term "sign" here is taken from semiotics. Thus, the problem of the multidimensionality of the entity, which is designated by the term "sign", is expounded in various ways and expressed in theory formation.[24]

Historical semiotics is rooted in the theory and methodology of systems theory, sign theory, evolutionary epistemology, and critical rationalism. From these epistemological core directions, historical semiotics takes on the claim to fulfil the requirement of remaining scientific, above all staying true to the criteria of verifiability and falsifiability (fallibilism).[25] The instruments of cognition (*Erkenntnisinstrumentarium*) and the corresponding approaches of historical semiotics are linked to these criteria. The purpose is to ensure that all steps of procedure and research results are clear and therefore verifiable and falsifiable,[26] with the ultimate aim to overcome the lack of theory and terminology in the research practice of history by theory formation and the modelling of a science system. The lack of a theory (*Theorie-losigkeit*) prevents researchers from analyzing their object of study (*Untersuchungs-gegenstand*) in accordance with the requirements of science within a structured system

organized along the lines of specific rules and by means of the associated instruments of cognition and procedures (i.e. methodology) instead of describing and comprehending the object of study in question rather unsystematically and arbitrarily, or at best, just by "common sense."[27] Here, the question arises as to whether such an approach – in which the absence of a proper system is compensated for by intuitive procedures decided according to instinct – is still compatible with the standards of modern science according to the concept of science of the 20th century.[28] For indeed, a procedure done "according to taste" differs from a scientifically valid approach in accordance with the modern concept of science only by one thing: while the former procedure is not scientific, the latter is.[29] Cognitive scientist Jerry Fodor argued in a similar fashion that "The moral would appear to be that you can't make respectable science out of the attitudes as commonsensically individuated."[30]

Since theory and terminology are directly related, however, the lack of a theory renders any formation of a scientific concept impossible and vice versa.[31] Accordingly, a scientific system of concepts can neither be developed nor established in the absence of theory and vice versa.[32] This means that the central criteria of a scientific approach – namely the criteria for separating science as a system backed by theory and terminology and the falsifiability or verifiability of scientific results as implemented by theory – cannot be met. This lack of theory creates an enormous desideratum for a scientific research practice which cannot be compensated for by e.g. a catalogue of *wh*-questions that has been used by historians as a means for questioning texts with for centuries.[33] Moreover, the very fact that this catalogue of *wh*-questions has been in existence for a long time has to be handled as an additional problem for a scientific research practice, provided that science – according to its modern concept – is to be understood as a *dynamic process*. Based on the conception of science in the 20th century, it is no longer sufficient to characterize textual scholarship (*Textwissenschaft*) as such just because the corresponding research is based on sources one needs to find and interpret appropriately.

According to this conception of science, the latter procedure would be one "according to taste" (at least when it comes to *reconstructing* the past on the basis of hermeneutically deduced data)[34] and would differ from a theory-based concept of science - therefore representing a scientific approach – in only one respect: while the former would not be scientific because of being neither verifiable nor falsifiable, the latter would be scientific because the hypotheses therein determined by theory would be verifiable and falsifiable in practice, i.e. on the basis of tangible text material and by applying methods that, in turn, are determined by theory.[35]

In other words, textual research field cannot be pursued on the basis of traditional heuristic and hermeneutic methods alone since it would mean that the *empirical level*, i.e. the level of the object of study or the level of the texts, cannot be left and the *theoretical meta-level*, i.e. the level of science, cannot be entered.[36] This has two major consequences for the practice of historical research: firstly, an object that is not expressed in *scientific terms* – i.e. it cannot be broken down into its individual parts on a meta-level and reassembled from these individual parts (thereby, the interdependence of individual parts between each other and with the whole becomes researchable) – cannot be understood.[37] Secondly, an object cannot be described or explained by itself, i.e. a historical text should not be paraphrased, summarized or reproduced in any other way with its own language, but has to be conceptualized first – i.e. has to be recorded theoretically and terminologically – and then be translated into a scientific meta-language.[38] In other words, any description and explanation of objects using the language of the "sources" (or everyday language) cannot achieve the necessary *precision* and *density of information* that is expected from scientific language according to the modern concept of science.[39] This is where the communication of knowledge fails, which interdepends dynamically with the complexity of the object of study, thereby creating *conceptual vagueness* that contradicts the criteria of scientific language leading to further problems, especially at the level of theory and concept formation and – directly related to this – at the level of demarcation of science from non-science. For an "anthropocentric history", therefore, a system of science is modelled on the theoretical basis of systems theory, evolutionary epistemology and sign theory, which correlates with the "holistic-organismic-systemic" approach. This "model of a modern science system" with "historical semiotics" inserted into it as an instrument of cognizance[40] can be captured more precisely in the following image:

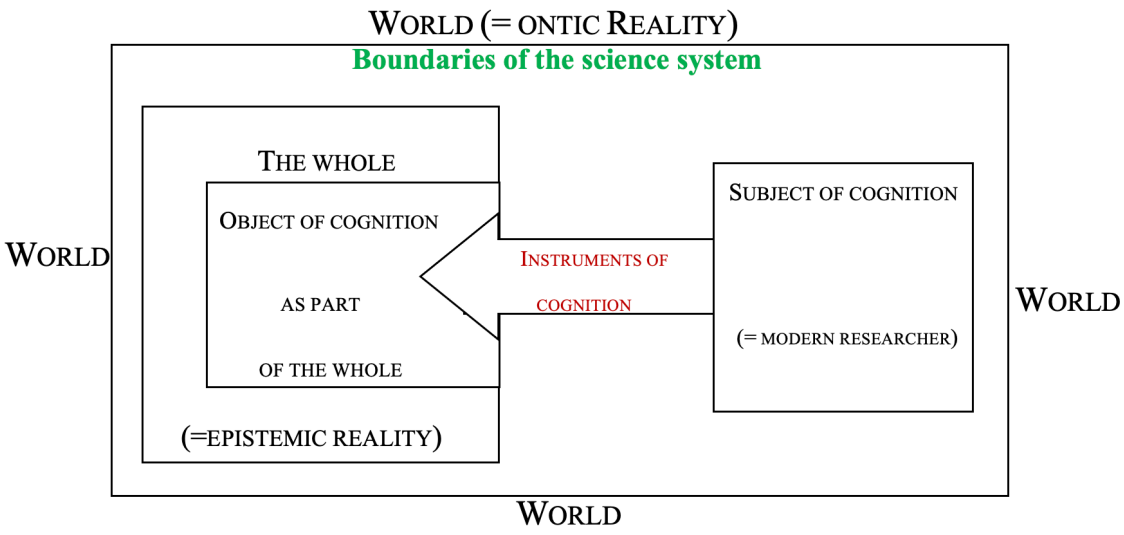

Fig. 1. "Anthropocentric history" as a modern science system. The target situation of a scientized historical research practice.

The two central characteristics of this modern science system are the system boundary and the modelling of every research as a triple relationship consisting of the subject of cognition (*Erkenntnissubjekt*), the instruments of cognition (*Erkenntnisinstrumentarium*) and the object of cognition (*Erkenntnisobjekt*). The first assumes the existence of theory and terminology, by which all steps the subject of cognition is carrying out on the object of cognition are systemically explained. All work results are organized conceptually. Overall, the system boundary makes it difficult for non-scientists to instrumentalize a scientific discipline. According to systems theory, the object of cognitionis thought as part of a whole and therefore holistically.

The latter correlates with Fred Dretske's concept of information.[41] The second characteristic assumes that a subject of cognition does not just follow common sense, but studies everything that comes into his or her focus with the help of the science-based instruments of cognition. In other words, insights can only be gained within the framework of a science system and only with the help of science-based instruments of cognition. Findings obtained by common sense or by introspection by a researcher are not scientific.[42] Instruments of cognition exist independently from both the subject and object of cognition, i.e. they are neither derived from the former's common sense nor are they generated on the latter. They are instead modelled epistemologically on the basis of nomological statements and empirical evidence. This would call into question the conventional practice of history as contrary to a

good scholarly practice. Instead, the principle formulated by Aron Gurevich that historians per se do not constitute a scientific instrument of cognition will be systematically driven forward:

> A historian on his or her own, does not act as a magnifying glass through which one or another fragment of the past could be focused without obstructions or distortions. The subjectivity of historians, which encompasses both their knowledge and approaches to research as well as their personal inclinations and likings, inevitably and sometimes even unnoticeably for themselves, takes an active part in the selection, gathering and organization of the material they study.[43]

Instruments of cognition fulfil a multiple and system-stabilizing function:

1. They create a distance between the subject of cognition (*Erkenntnissubjekt*; *ES*) and the object of cognition (*Erkenntnisobjekt; EO*) or the object of study (*Untersuchungsgegenstand*; *UG*).
2. They oblige the subject of cognition to study the object of cognition by means of the

instruments of cognition (which exist independently of both the subject and object of cognition) exclusively.

3. They shift the studying of the object of cognition or the object of study to a meta-level where solely the rules, norms and criteria of science apply and not the common sense of the subject of cognition.[44]
4. All results obtained on this meta-level by the instruments of cognition are falsifiable, fallible and revisable and therefore not final. Applied to history or to the study of culture and the past, this would basically mean that a "reconstruction"[45] or "composition" of the past in the sense of a "creative act"[46] would not only not be possible, but would be pointless. What historians conventionally call "the past" is, from the perspective of a science system, merely a falsifiable model.

In this science system, historical semiotics acts as an instrument of cognition and as such, provides the modern subject of cognition with the tools necessary for studying "historical signs":

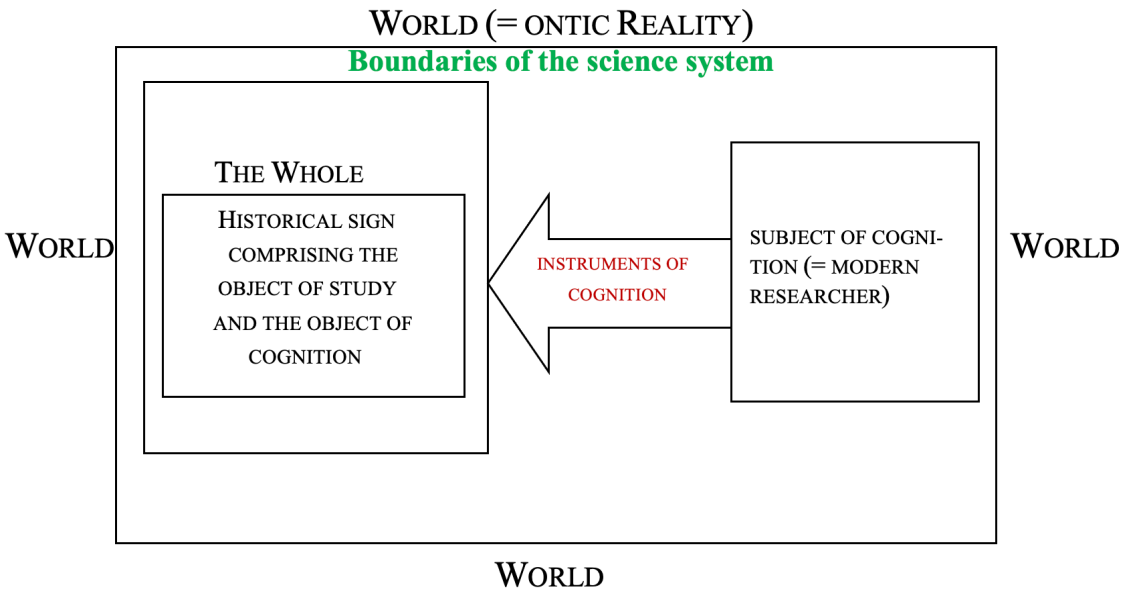

Fig. 2. Historical-semiotic science system with historical semiotics as instruments of scientization (of history) and cognition.

As an instrument of cognition used in anthropocentric history, historical semiotics adopts the notion from historical anthropology that humans change permanently and dynamically in time and space. To this same object of cognition, the research goal of historical semiotics is linked, which is to define a dynamic-static or dynamic-systemic concept of culture at regular intervals.[47] For this, it uses the historical-anthropological category of "otherness", which has been almost completely ignored so far and with which the cultural dynamics are to be expressed.[48] For the static or systemic component of culture, however, the cognitive anthropological categories "cultural or collective memory", "cultural model of the mind" and terms of cognitive science such as "mental model", "mental representation" and "mental representation system" are to be used. Therefore, in terms of theory formation, "historical semiotics" is determined on the one hand by sign and systems theory as well as evolutionary epistemology,[49] and on the other by linguistics, especially by cognitive linguistics and cognitive science. For one thing, the latter is justified by the basic assumption that linguistics and historiography (according to its desired state)[50] both deal with texts, i.e. text studies, and therefore are to be regarded as natural allies. For another, the connection between linguistics and history is based on the empirical evidence that in both cases the medium and the complex systems of signs, knowledge and coding as well as the cognitive subsystem "language" focus on the human or the

human "mind". The theoretical prerequisite for this is the empirically and experimentally proven basic assumption of cognitive linguistics, which has proven itself over and over again empirically and experimentally, that texts (i.e. the written form of language) or linguistic utterances represent the observable part of cognition directly accessible to consciousness. The mental representations behind the respective texts and linguistic utterances can be studied by texts. Or, in other words, the study of texts leads to the system of representation or to its producer's mind. However, many more statements have to be made and work steps have to be taken resulting from the temporal distance and the limitations of information regarding historical signs in relation to contemporary linguistic research. Thus, the terminologies and theoretical foundations and methods of cognitive science and cognitive linguistics are processed and modified in historical-semiotic theory formation.[51]

In accordance with the multidimensionality of the sign in the context of the theory of science, "historical semiotics" forms an analytical survey instrument for decoding written information media produced e.g. in pre-modern era. Furthermore, it is an instrument of representation and recording for modelling the mental representation systems of people or text producers from past epochs[52] and for analyzing historical cultural phenomena as products or results of the cognitive activity of those people.[53] The latter is done by reference to the connection between culture and cognition.

Both the modelling of mental representation systems, i.e. the states of information in the long-term memory of people from past eras, and the study of culture as a result of the processing of information are carried out on the theoretical basis of five basic concepts of historical semiotics.[54] As an instrument of representation, historical semiotics makes transparent the multidimensionality of the historical sign, which comprises both directly observable or visible and non-observable elements. The former corresponds to the object of study (*Untersuchungsgegenstand; UG*) and correlates with the sequence of signs as the communicative dimension of a sign, while the latter stands for the object of cognition (*Erkenntnisobjekt; EO*) and comprises the level of meaning as well as the level of reference object of a sign. Overall, a sign is perceived as an information-carrying object or information carrier. Different dimensions or elements of a sign are combined therein, which are represented by the object of study and the object of cognition. Conversely, each sign can be divided into two corresponding components, namely the object of study and the object of cognition. The connecting and the separating element of a sign is its "trace" in the form of a written information carrier or text, i.e. each text stands for itself *and* for the text producer, i.e. the object of cognition. Similarly, the cognitive-linguistic assumption that all forms of language (oral and written language) contain traces of

cognitive processes of language actors. Here and there, it is a matter of searching for traces of what is causal to the traces. From the point of view of cognitive linguistics, it is mental dispositions or mental representations of text producers; from the point of view of historical semiotics it is the traces of people who encoded their world knowledge (W_{EO}) into the written information carriers. Following cognitive science and cognitive linguistics, historical semiotics essentially assumes that all cognitive and cultural phenomena[55] resulting from it[56] leave "imprints" (discursives[57]) in language[58] due to the informational nature of the complex cognitive and cultural system of knowledge and coding, i.e. "language", on the basis of which important, yet incomplete information about the mental dispositions of the text producers can be determined.[59] Translated into the terminology of evolutionary epistemology, this refers to "epistemes"[60], or "mental descriptions"[61], or "representations", which the text producers linguistically had encoded in the course of text production in relation to specific, i.e. real or sensory-based entities (onta[62]), but also in relation to abstract, i.e. unreal or non-sensory-based entities (processes, events, phenomena and persons). As a cognitively and culturally determined system of knowledge, information, coding and communication, language also enables historical hypotheses to be verified, thereby fulfilling an essential criterion of scientific integrity.[63]

Historical semiotics: development, objectives and realization

Conceptually, historical semiotics was developed independently of (cognitive) linguistics.

Historical anthropology forms the epistemological basis here. Founded in the 1930s by Marc Bloch and Lucien Febvre and developed further by Aaron Gurevich in the 1970-1990s, it defined history in relation to its "object" (= humans) as a "human science".[64] It did not explain *how* this human science should come about, but merely postulated *that* history *should* "interlock" with other human sciences. Among these human sciences, Gurevich included psychology and linguistics.[65] An essential characteristic of this formation of history (= anthropocentric history) is the recognition of anthropological dynamics and, as a result, the otherness of the individual to be studied and the culture or period to which he or she belongs.[66] Consequently, a researcher needs to take this otherness into account. According to a researcher's common sense, the latter renders any introspective modus operandi obsolete and breaks with the anthropological universalism of the 19th century[67], which, in the field of history and its practice of research, is still prevalent today.[68]

In the 1960s, 1970s and 1990s again, Gurevich anticipated that this formation of history requires an adequate and independent set of instruments of cognition and that it can be derived from semiotics.[69] Consequently, with historical semiotics, Gurevich's idea is implemented for the first time. While its establishment is not possible within history in its current state (especially in the German-speaking world), its application within the framework of linguistics is in line with the conceptualization of history as a human science. In a long term, however, historical semiotics shall ensure that history is scientized.

The benefits of historical semiotics for a linguistic text analysis: making clear previously unconsidered informational obstacles in the decoding of historical texts

With the study of humans, (cognitive) linguistics and anthropocentric history share not only a common goal, but also a common medium, i.e. language. The essential difference is the impossibility of carrying out an experiment in cognition and of corresponding to the postulate of psychological reality. This results in various characteristics of a trans-historical and text corpus-based study of humans not considered in linguistic text analysis so far. They are concentrated in the different informational barriers and obstacles. Their historical-semiotic transparency is achieved through the concept of signs. The concept of sign replaces the metaphor of source used since Cicero – which is associated with the positivist truth claim (reconstruction of the past) – with a more precise concept. It denotes both a written information carrier and a mental or cognitive representation.

The modelling of the historical sign

For the modelling of the historical sign (*historischesZeichen; HZ*), the dichotomy between thing (*Gegenstand*) and object (*Objekt*) as established in Hobbesian, Hegelian and Kantian philosophy is taken up. The object of study (*Untersuchungsgegenstand; UG*) corresponds to the text that is present as an object, i.e. directly observable and researchable. The object of cognition (*Erkenntnisobjekt; EO*) corresponds to the text producer (or his or her mental representation system), who is causal to the text and is thus represented. Accordingly, the historical sign consists of the object of study and the object of cognition. In other words, *the* human becomes researchable by means of the text. This makes manifest also the connection to cognitive linguistics. On the one hand, the object of cognition differs

from the modern researcher (= subject of cognition, *Erkenntnissubjekt; ES*) as a sign user, on the other as a cognitive system. The text they produce can therefore only be partially decoded by the subject of cognition. The main concern of historical linguistics is the adequate decoding of the historical sign. The adequacy refers to the object of study and the object of cognition-related specifics and the resulting informational barriers and obstacles for the subject of cognition. Hence the definition of historical semiotics (= HS): HS is an epistemologically, systems and sign theory-based as well as cognitive-linguistically determined instrument of cognition that should enable the subject of cognition (ES) the research of historical signs (HZ = Historisches Zeichen) within a fallibilist science system (= system of text studies) according to the criteria of verifiability, falsifiability and clarity as formulated by the philosophy of science, as well as according to the basic position of fallibilism and in accordance with the concept of science as stated.

The historical sign establishes complex relations to the terms or entities and systems "code (code, encoding, decoding)", "communication", "information", "language", "text" and "culture". In this way, the otherness and informational obstacles[70] between the object of cognition (EO) and subject of cognition (ES) can be made clear on the basis of concrete parameters.

The decoding of the historical sign

The sign users of different sign systems use different codes that are culturally and cognitively determined. They are subject to specific communicative conventions. The written information carriers, which have been encoded by sign users of other culturally and cognitively determined sign systems, can only be decoded in fragments.[71]

This hypothesis is explained by the concept of communication: If reading and writing of texts is conceptualized as a one-way communication, the encoding of the historical sign by the object of cognition corresponds to a one-way communication (K_{hist}), but the decoding of the historical sign by the subject of cognition corresponds to a one-way, intercultural, retrospective and reinterpreted communication (K_{post}). In other words, there are different communication situations[72] in which the historical sign is involved and which the subject of cognition has to model during each decoding process. The first, original or historical communication situation (K_{hist}) is the basis for the creation of the written information carrier (= UG in K_{post}), i.e. the encoding process. It comprises an author (V = Verfasser), i.e. the sender or producer (= EO) of the written message or text (T), and a reader (L =

Leser), i.e. the recipient of this message (T). It does not include the subject of cognition (ES). The text (T) is not addressed to ES. It is not primarily a one-way form of communication, as the author is potentially available to the reader for any questions.

The text (T) represents a connecting element between V and L and is addressed to L:

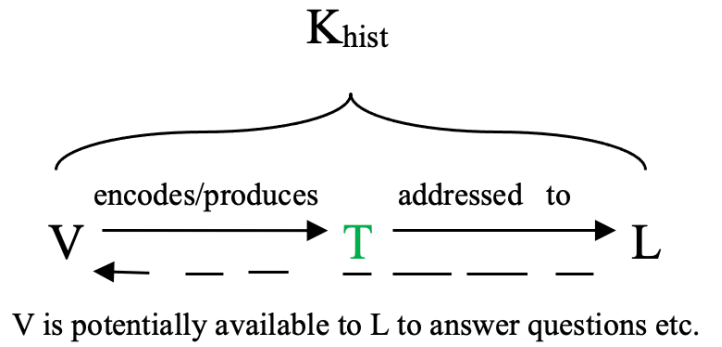

Fig. 3. Historical communication situation K_{hist}.

Here, T is the only observable entity for ES, by which K_{hist} is represented as a linguistic model for a section of the past.

The second communication situation is fundamentally different from the first and original one. The author and the reader, i.e. the participants of the K_{hist} are inaccessible to ES. The text, i.e. the information carrier as a representational element of K_{hist} is thus de-contextualized and is available to the ES as the only element that has come from K_{hist}. However, it is not addressed to ES, but to reader (L= Leser) who is no longer available.

The moment the historical sign (HZ; HistorischesZeichen) is studied, ES enters a communication situation not intended for him or her and reinterprets it in their favor, i.e., ES takes the right to make statements about this communication situation, to evaluate it, etc. The ES thus creates a new, retrospective and reinterpreted communication situation K_{post}, when it steps in by means of the text (T) into the original, no longer existing or observable communication situation K_{hist} post factum. In this new, subsequent and reinterpreted communication situation, the text is conceptualized as the object of study (UG) and the author as the object of cognition (EO). This results in a reversal of the original direction of communication. The ES addresses the text and aims to reach the no longer existing, i.e. not directly observable text producer:

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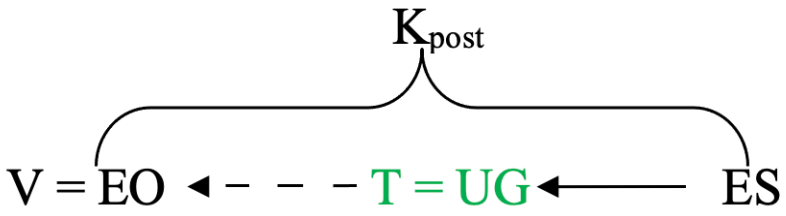

Fig. 4. The decoding of HZ as a one way, intercultural, postfactual and reinterpreted communication situation K_{post}.

The ES has the task of double decoding: they must decode both the content and the context of HZ. In order to do this, the ES depends on codes that have been used in K_{hist}. Thus, K_{post} is supplemented by the attribute "intercultural". Similar to a translation process, a "cultural coherence" between the sign system of the ES and the sign system of the EO needs to be established when accessing the HZ.[73] Here, it cannot be checked experimentally or by asking questions whether the codes determined correspond to the codes actually used. In this way, K_{post} represents an epistemological model from an informational point of view, which should make the impossibility of reconstructing the past clear. It is not possible for ES in K_{post} to contact or communicate with EO in any form. Thus, an absolute or complete understanding of the text cannot be guaranteed for the ES. In other words, the ES is a priori not able to fully decode and understand the HZ. They are distanced from the text producer by time, space and language and are therefore outside the context of the text producer, the text addresser and the K_{hist}:

Fig. 5. The inaccessibility of K_{hist} for ES.

The difference between the EO and the ES is made clear by three parameters:

doi.org/10.32388/IXBMAN

1. The way knowledge is stored, structured and organized.
2. The functioning of the mental representation system.
3. Lacunae in the mental lexicon.

Four empirically supported basic assumptions of Cultural Linguistics are adopted:

1. Cognition is a dynamic system;
2. Culture is a dynamic system;
3. Cognition is culture-dependent;
4. Culture is a product of cognition.

In other words, ES and EO belong to two completely different sign systems (=context), form two different conceptual systems, have a different conceptual knowledge (Kon_{ES}; Kon_{EO}), sharea different world knowledge (W_{ES}; W_{EO}) and use different codes, so that the following array applies: $Kon_{ES} \neq Kon_{EO}$; $W_{ES} \neq W_{EO}$.

These informational barriers or filters taken together render any claim to understand a historical text the way K_{hist} participants understood it obsolete. For the "*Epoche der Handschrift*" [74], or the pre-modern era[75], at least four information filters (IF) can be tentatively assumed. These are keyworded as follows:

1. noise (*Rauschen*) = IF1; 2. "double decoding" = IF2; 3. Loss of information during the process of translation = IF3; 4. Loss of, or fragmentary record of the written information carriers = IF4; (5. "glasses of a historian" = IF5)[76].

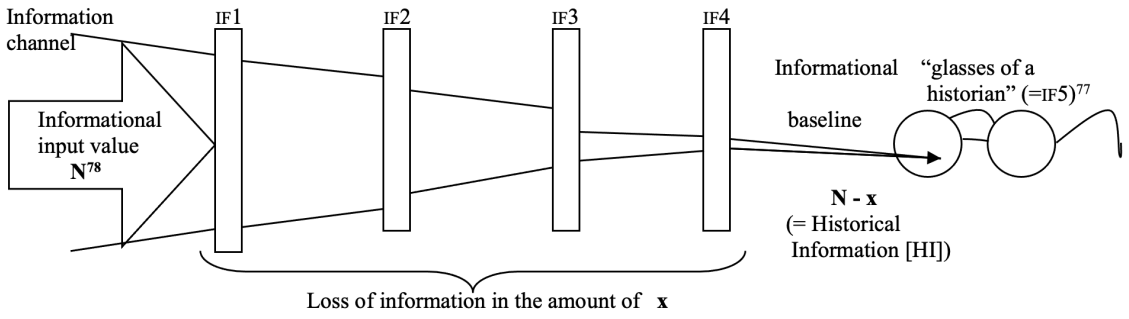

Fig. 6. Information filter in a historical-semiotic information channel.

doi.org/10.32388/IXBMAN

IF1: This filter includes all unsystematic, i.e. unintentional or uncontrolled interferences ("random errors"). They are caused by spelling mistakes, special features of the handwriting of the text producer or, which is particularly relevant for the situation of the pre-modern period, by the spelling mistakes of the copyist[79], i.e. the text reproducer[80].

IF1 thus makes clear that in antiquity HZ and UG were (re-) produced in most cases, and in the Middle Ages in many cases not by EO, but by EO*. It cannot therefore be guaranteed that the mental representations of the actual EO are behind a HZ. The latter applies e.g. to the New Testament, which has been handed down as a text corpus in approximately 5400 manuscripts of which there are no two identical copies. Also, the earliest manuscript fragment is dated to ca. 125 A.D.

IF2: Every sign system is in a permanent dynamic development, so that the corresponding codes are also permanently and dynamically changing. Each HZ forms a certain fixing moment, i.e. a text already uses the conventional codes approved by the superior sign system and shared by sign users. In other words, the text fixes a certain state of a sign system which, however – because it is dynamic – immediately leaves this state and changes into another or the next state. This means that on the one hand the state fixed in the text, i.e. the snapshot of a dynamic sign system, must be decoded, while on the other, it has to be taken into account or assumed that this sign system has developed permanently and dynamically even after this snapshot. Furthermore it has to be taken into account that the state of the sign system represented by the text was preceded by other stages of development of this sign system:

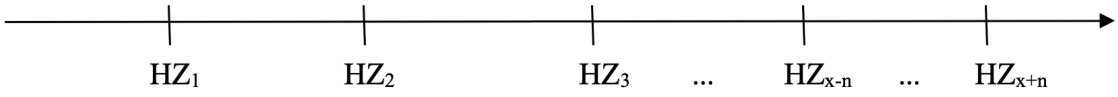

Fig. 7. HZ as a snapshot of a dynamic sign system whose codes have to be decoded both for the respective snapshot and in relation to the system dynamics.

The change of codes is to be tracked randomly or gradually by interval determination:

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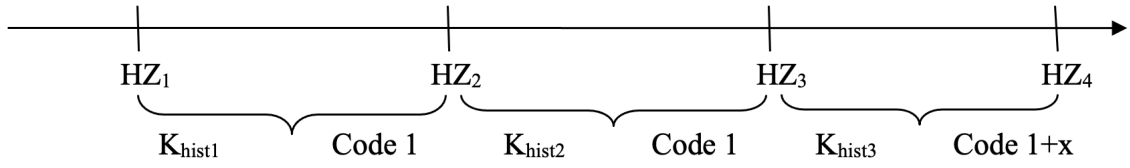

Fig. 8. Gradual interval determination of the dynamic change of codes of a sign system using the historical-semiotic entities HZ and K_{hist}.

Conclusion

Every single theory needs to prove itself. Whether historical semiotics, which has been explained in such detail above and advertised as something scientifically valuable, is actually worth anything can only be shown by the empirical experience associated with it. However, one thing is beyond question: if historians do not finally begin to distance themselves from the glasses of their 19^{th} century predecessors, it will be difficult for them to find an adequate language for communicating historical knowledge in different communication spaces. It will also be problematic to find for oneself a scientific explanation of what history actually is.

Historians should see themselves as scientists though, and history as a science. For this, they need theories. Historical semiotics is only one of them, but one that wants to serve as a model for other, better theories.

Declarations

Ethical Approval

Not applicable.

Competing interests

The author certifies that he has no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Authors' contributions

Not applicable.

Funding

Not applicable.

Availability of data and materials

Not applicable.

Footnotes

[1] Cf. e.g., Hessisches Kultusministerium, "Kerncurriculum gymnasiale Oberstufe. Geschichte", http://www.kultusministerium.hessen.de/sites/kultusministerium.hessen.de/files/2021-08/kcgo__-__geschichte__-__stand__august__2021.pdf , August 1, 2021, esp. 10-12 (accessed September 1, 2022).

[2] See Schneider (2006).

[3] Cf. most recently the "Pressekonferenz von Bundeskanzler Scholz mit dem Ministerpräsidenten des Staates Israel Lapid am 12. September 2022 in Berlin", http://www.bundesregierung.de/breg-de/suche/pressekonferenz-von-bundeskanzler-scholz-und-dem-ministerpraesidenten-des-staates-israel-lapid-am-12-september-2022-in-berlin-2125198 , September 12, 2022 (accessed September 15, 2022).

[4] See Peter Johannes Droste and Ulrich Bongertmann, "Ein aktueller Überblick über den Geschichtsunterricht im föderalen System der Bundesrepublik Deutschland," *Verband der Historiker und Historikerinnen Deutschlands* (blog), July 15, 2017, http://www.blog.historikerverband.de/2017/07/15/ein-aktueller-ueberblick-ueber-den-geschichtsunterricht-im-foederalen-system-der-bundesrepublik-deutschland/ (accessed September 1, 2022).

[5] On this point, see especially Forwergk (2022).

[6] Cf. for example, Knothe & Broll (2019).

[7] Cf. e.g. Capozzi (2016).

[8] Over the past 20 years it has become common practice for universities in Germany to offer special courses for pupils.

[9] See Eckart (2004 pp. 1694-1712).

[10] See Grau (1767 p. X).

[11] Cf. e.g. Lohr (1986).

[12] As already outlined by Koselleck (1979).

[13] Cf. for example as provided by Klug (2012).

[14] Cf. Theuerkauf (2003 pp. 2937-2976).

[15] See Theuerkauf (1997 pp. 13-32 ("1. Historische Quellen als Mittel der geschichtswissenschaftlichen Erkennt-nis.")).

[16] For more details cf. Kalwa (2015 p. 201) and Steinhoff (2007 p. 13).

[17] Cf. Vollmer (1974) and Budin (1996).

[18] Cf. Ogden & Richards (1923 p. 11), Morris (1939 pp. 131-150), and Peirce (1977).

[19] The term"science" is defined as a theoretically and methodologicaly controlled and guided process of genera-ting, organizing and communicating knowledge that is not understood as an objective reality but as an epistemic object reference or mental representation of ontic reality. Epistemic reference is based on questions to the "world" or to parts of reality, and therefore findings from this about the "world" have a temporarily fallibilist model character. Thus, this definition of "science" is based on the fundamental distinction between categories of reality and knowledge. Here, the assumption of fallibility follows, which renders any claim to truth regarding the system of science and the scientific process obsolete. Furthermore, the position of systems theory and its associated definition of "system" is taken, which states that a scientific process has to take place in a system of science that is organized internally and demarcated from the external by scientific terms. The relevant definitions of a system underlying the concept of science presented here, come from Helmut Willke and Claus Buddeberg. Willke defines a system as: "*einen ganzheitlichen Zusammenhang von Teilen, deren Beziehungen untereinander quantitativ intensiver und qualitativ produktiver sind als ihre Beziehungen zu anderen Elementen. Diese Unterschiedlichkeit der Beziehungen konstituiert eine Systemgrenze, die System und Umwelt des Systems trennt. Komplexe Systeme sind durch die Merkmale Selbstorganisation, Grenzerhaltung, Selbstreferenz und Generativität charakterisiert. Die Besonderheit der*

Klasse der psychischen und sozialen Systeme liegt darin, daß ihre Grenzen nicht physikalisch-räumlich bestimmt sind, sondern symbolisch-sinnhaft." Cf. Willke (1987 p.176). Thus, Willke's definition of "system" emphasizes the principles of organization and boundary within a composite whole. In addition to the principle of organization, Buddeberg's definition focuses on the dynamic or interactive moment between the whole and its parts: "*Ein System ist ein aus den Wechselwirkungen seiner Elemente organisiertes Ganzes. Die Elemente eines Systems beeinflussen sich gegenseitig und stehen miteinander in einer multivariablen Interaktion*." Cf. Buddeberg (2004 p. 120 [italics in original]).

[20] The term "critical rationalism" is to be understood as the basic trend in the philosophy of science as shaped by Karl Popper's "*Logik der Forschung*." Cf. Popper (1934).

[21] From the point of view of the philosophy of empirical sciences, what would happen if researchers were to hold on to the truth claim, i.e. if they were to regard certain theories as absolutely secured? "*Man hätte in diesem Falle keinen Grund mehr, auf widersprechende Hinweise zu achten, geschweige denn, sie zu suchen. Weiterhin wäre es überflüssig, sich alternative Auffassungen auszudenken, denn zur Wahrheit kann es nur falsche konkurrierende Alternativen geben*." Cf. Gadenne (1996 p. 63).

[22] According to the assumption of fallibility, any scientific theory and any scientific model based on scientific findings is basically fallible and therefore revisable and not final: "*Welche heuristische Funktion hat der Fallibilismus für die Erfahrungswissenschaften? Als methodologisches Prinzip fordert er dazu auf, alle Erkenntnisprodukte als fehlbar anzusehen, und zwar ausnahmslos. Dies hat vor allem die folgenden Konsequenzen: Erstens sind Theorien grundsätzlich als vorläufig anzusehen. Niemals kann eine Theorie als Endpunkt in der Entwicklung eines Wissenschaftsgebietes gelten. Zweitens sind auch Beobachtungsergebnisse fehlbar (wie Popper bereits in »Logik der Forschung« darlegte). Und drittens muß stets damit gerechnet werden, daß eine der oft zahlreichen Hilfsannahmen falsch ist, die man nicht problematisiert, während man eine bestimmte Hypothese oder Theorie überprüft.*" Cf. Gadenne (1996 p. 63). With this fallibilistic assumption, critical rationalism like evolutionary epistemology, confronts the problem of reality, which can only be solved by theory formation and methodological diversity, i.e. according to the tasks and characteristics of science. The reality problem is based on the question of how scientific knowledge about the "world" relates to the "world" itself. It says that science, as long as it is based on critical rationalism (Popper (1934, 1957, 1962, 1983)) and evolutionary epistemology (Oeser (1976) and Budin (1996)), has to distinguish between categories of reality and categories of cognition. Consequently, "scientific knowledge" a priori cannot be equated with "truth". Here "scientific knowledge" corresponds to the cognitive, communicative and informational models and

representations of the world, whereas "truth" corresponds to the actual existence and nature of the world. Thus, the central idea of the fallibilistically determined concepts of science, which in the present case are represented by critical rationalism and evolutionary epistemology, consists in the fundamental distinction between the model of science in the sense of the epistemic instrument of cognition and the section of reality in the sense of ontological truth, which is studied by science by means of this instrument of cognition and exists independently of it.

[23] The essential characteristic of critical rationalism is the distinction between categories of reality and categories of cognition: The former is assigned to the object of study in the sense of a section of reality, the latter is assigned to the research process or the system of science that explores the section of reality by means of concrete instruments of cognition, which are subsumed under the term "methodology". Thus, critical rationalism assumes a reality that exists independently of science, which for the sake of simplicity can be described as the "world". Due to the distinction between ontic reality and scientific knowledge, which can never be congruent, the assumption of fallibility is made in relation to scientific knowledge. According to this assumption, every scientific theory as well as every scientific methodology and the knowledge gained from it is fundamentally fallible. As a result, the claim to truth that is characteristic of the scientific understanding of the 18th and 19th centuries is no longer made, which, at least makes the formation of theories and the development of methodologies as related instruments of cognition more difficult. The fallibility principle of scientific theory, method and cognition results in four further principles that structure the scientific process and determine its functioning: The "criterion of demarcation" is intended to ensure the systemic character of science. Accordingly, science is separated from the world, which exists independently of it and which it is supposed to explore, by a system boundary. Within this system boundary or within this system, in turn, empirically falsifiable – i.e. verifiable - hypotheses and theories can be established, revised or refuted. The systemic character of science also makes it possible to subject scientific theories, models and the knowledge gained from them to "rigorous tests" (tests of falsification). Furthermore, the system character of science has a control function over the information content of the overall system of science, which according to Karl Popper's theory of science consists of theory and methodology. Here the principle of the inadmissibility of an (informational) reduction in content within a system of science applies, which only permits changes that do not reduce its information content. Finally, the fifth principle is derived from the systemic character of science, according to which the falsified theories, methods or findings, i.e. those proven to be fallible or incorrect, must be

regarded as "ultimately falsified". The falsifications have to be always "based on methodically controlled and reproduced empirical findings". Cf. as summarized by Gadenne (1996 p. 60). The systemic character of science is thus directly related to the falsification assumption and the resulting principles of scientific theory formation and methodology. These principles of critical rationalism, however, are based on the distinction between categories of reality and categories of cognition, which a priori disqualifies any claim to truth within a scientific system. The question of how categories of reality and categories of cognition relate to each other represents the problem of reality, the solution of which is one of the main tasks of all modern sciences. On the problem of reality, cf. Budin (1996 pp. 20-31). This solution can only be achieved if theories are formed and corresponding instruments of cognition are provided. The problem of reality, the assumption of fallibility and the development of theories and methodologies are directly related to this and form three correlates that characterize a field of activity as "science".

[24] On the meta-analytical level, from which the historical sign, consisting of the object of study and the object of cognition, is viewed from a bird's eye view, at least three dimensions result (sequence of signs, meaning, object reference). On the analytical level however, from which the historical sign is viewed "from within", at least two dimensions result (object of study, object of cognition).

[25] According to the basic position of critical rationalism, i.e. the principle of fallibilism "*gilt eine wissenschaftliche Theorie [...] als allgemeine Aussage, die der Falsifizierung gegenüber der Realität unterliegt.*" Cf. Larsen (2003 p. 22). In other words, an approach which aims to explore an ontic section of reality or its representation in the form of a text and which does not involve theory formation, cannot be falsified and is therefore unscientific.

[26] With Hans Albert and Volker Gadenne, this refers back to the philosophy of science of Karl Popper (1934/35), whose principles Volker Gadenne subsumed under these five basic scientific rules: "*(1) Fallibilismus: Betrachte alle Ergebnisse von Erkenntnisversuchen als fehlbar und revidierbar. (2) Abgrenzungskriterium: In der empirischen Wissenschaft sind nur solche Hypothesen und Theorien akzeptabel, die empirisch falsifizierbar sind. (3) Strenge Prüfversuche: Nachdem eine Theorie vorgeschlagen wurde, sollte sie strengen Prüfversuchen (Falsifikationsversuchen) ausgesetzt werden. (4) Keine Gehaltsminderung: Nur solche Änderungen des Gesamtsystems von Theorie und Hilfsannahmen sind zulässig, die dessen Informationsgehalt nicht vermindern. (5) Endgültigkeit der Falsifikation: Falsifikationen, die auf methodisch kontrollierten und reproduzierten empirischen Befunden beruhen, sollten als endgültig betrachtet werden.*" Cf. Gadenne (1996 p. 60 [emphasis in original]).

[27] Although the problem of a lack of theory is often discussed and criticized in the humanities, it is above all the empirical sciences that see in it a fundamental obstacle to scientific work. Here, "lack of theory" is equated with arbitrariness – a characteristic a science cannot afford. See e.g. Richter (2011 pp. 280-281).

[28] This statement does not put into question intuition per se, which, if an individual scientist has it, can be helpful. It rather questions the approach of replacing scientifically determined, systemic research with an intuitive "writing based on gut feeling".

[29] As stated by historian of antiquity and history theorist Paul Veyne in 1976: "Après tout, rien ne distingue les affirmations du sens commun et celles de la science, sauf que ces dernières sont systématiques et vérifiées." Cf. Veyne (1976 p. 43).

[30] See Fodor (1987 p. 30).

[31] Cf. Budin (1996 pp. 9-18).

[32] Cf. e.g. Cernoch (2005 p. 131).

[33] Cf. Budde (2008 p. 67).

[34] It is interesting to note that for an overwhelming majority of historians the idea seems to prevail that their primary role is to reconstruct the past. Cf. the representative works of Rüsen (1986) and Paravicini (2010 p. 47 et seqq.).

[35] Paul Veyne also said nothing else: "Après tout, rien ne distingue les affirmations du sens commun et celles de la science, sauf que ces dernières sont systématiques et vérifiées." Cf. Veyne (1976 p. 43). By analogy to the historian of antiquity and history theorist Paul Veyne, the cognitive psychologist and linguist Jerry Fodor also argued by distinguishing between scientific, i.e. falsifiable and verifiable explanations and non-scientific, i.e. explanations and procedures based on common sense. Cf. Fodor (1987 p. 30). In both cases, the arguments were based on an epistemologically determined concept of science.

[36] This is in accordance with Paul Veyne, who already in 1976 pleaded for historians to use a transhistorical, because scientific metalanguage if they want to understand and explain their subject adequately: "*Un historien ne fait pas parler les Romains, les Thibétains ou les Nambikwara: il parle à leur place, il nous parle d'eux et il nous dit quelles furent les réalités et les idéologies de ces peuples; il parle sa langue, il ne parle pas la leur; derrière les apparences et les mystifications, il voit la réalité. S'il nous parle du*

XX^e siècle, il prétendra dire la vérité sur le siècle actuel et n'en pas partager les leurres; il ne parle pas le langage erroné de ses héros: il nous parle d'eux en un métalangage, celui de la vérité scientifique. Les Romains parlent de la grandeur de Rome, de la coutume des ancêtres, de la sagesse du Sénat; l'historien traduit cela dans le métalangage transhistorique des sciences politiques; il décrypte le texte et y retrouve des invariants: impérialisme ou isolationnisme, couverture idéologique, domination de classe. Il ne partage pas le langage erroné des Romains: il nous explique les Romains en parlant la langue de la vérité scientifique, en mettant au jour les mécanismes et les réalités de l'histoire romaine et en la rendant ainsi intelligible." Cf. Veyne (1976 pp. 24-25).

[37] This is already the principle of Hegelian philosophy. Cf. e.g. Hegel (1832 p. 95). Furthermore, this is also the guiding principle of systems theory.

[38] As expressed by the structuralist-inspired central idea of Paul Veyne. Cf. Veyne (1976 pp. 22-25).

[39] Regarding the criteria of scientific language cf. Roelcke (2012 pp. 65-86).

[40] See Fig. 2.

[41] See Dretske (1981).

[42] Thus, one has to agree with Niklas Luhmann that a system is an instrument supposed to make the process of cognizance possible in the first place and that has to be developed outside the object of study (*Untersuchungsgegenstand*) and not on the object itself: "*Wissenschafts- und erkenntnistheoretisch gesehen ist das System also nicht etwas, was man in der Empirie vorfinden könnte, sondern das System, diesem Verständnis entsprechend, ist in erster Linie ein Instrument zur Beobachtung.*" Cf. Luhmann (2001 p. 306).

[43] "Историк не представляет собой некоего увеличительного стекла, через которое без помех и иска-жений можно разглядеть тот или иной фрагмент прошлого. Его субъективность, включающая в себя как его знания и исследовательские приемы, так и личные наклонности и вкусы, неизбежно и подчас незаметно для него самого самым активным образом участвует в отборе, осмыслении и организации изучаемого им материала." Cf. Gurevich (2009 p. 5).

[44] These rules, criteria and standards are represented, for example, by the postulates of Walter Eucken. These are the postulate of reality, structure, continuity, objectivity, and explainability. Cf. Engel (2002 p. 186).

[45] Cf. Ranke (1824 p. IV).

[46] See Kloft (1997 pp. 8-9).

[47] Due to the reason that it is processes, i.e. processual or dynamic entities underlying a culture, a concept of culture is aimed at, in which this processual dynamic is taken into account. Here, the definition of culture according to the concept of process is based on the assumption that "*ein Prozess […] zu einem beliebigen Zeitpunkt nicht vollständig [existiert]*", but "*sich vielmehr in sukzessiven aufeinander folgenden Momenten [entfaltet]*." Cf. Hagengruber (2004 p. 427). Accordingly, the culture formation (K) at a time A (K_A) differs from the preceding culture formation at time A-1 (K_{A-1}), or from the following culture formation at time A+1 (K_{A+1}). Consequently, a relational or relative concept of culture is to be assumed, which can be applied to a specific group, i.e. including, as well as differentiating between several groups, i.e. excluding. In other words, it would be wrong to assume a Russian culture that existed on a meta-level that was bound to the context of time and place. Or, to put it differently, the cultural formation at the time of the creation of Dostoyevsky's world-famous novels is different from that at the time of their decoding by readers from later epochs. In this context, it is obvious to integrate the so-called "dynamic concept of culture" into the historical-semiotic definition of culture this study is striving for.

[48] This category goes back to Aaron Gurevich. Continuing the anthropocentric approach of Marc Bloch and the *Annales*-movement Bloch founded, Gurevich developed a historical-anthropological approach for the "anthropocentric science of history" he placed under the presumption of otherness" ("презумпция инаковости") of the object of cognition in relation to the subject of cognition. Cf. Gurevich (2009 p. 15). Starting from Bloch and Gurevich, the "postulate of otherness" was derived within the framework of this study's historical theory formation ("historical semiotics").

[49] What these theories have in common is that they each consider and use three levels for scientific analysis (the level of reference object, the level of meaning, the level of the sign carrier / ontic, epistemic, communicative), which enable and suggest a distinction between categories of knowledge and real categories (epistemes vs. onta) or between scientific cognition and the real, i.e. objective world (knowledge vs. truth). In 1974, Gerhard Vollmer summarized this basic epistemological principle as follows: The "main epistemological question" is "the reason and degree of agreement between categories of knowledge and real categories." Cf. Vollmer (1974 p. 6). Thus, these theories represent an opposition to naive realism ("common sense realism"/"direct realism", in which it is assumed that epistemological and real categories, i.e. epistemes and onta, or knowledge and truth, are completely identical. Cf. Searle (2015). Applied to historical research, it can be concluded that

historians, when they claim to be truthful or objective, take the positions of naive realism. Regarding its content, this naive realism corresponds to the so-called positivism (Leopold v. Ranke). Historical semiotics, on the other hand, distinguishes between the categories of cognition and reality.

[50] What is meant here exclusively is a scientized history, or history to be scientized, whose approach is supposed to be anthropocentric (anthropocentric history).

[51] The terminology of semiotics (semaphore, concept/meaning, object of reference) is used exclusively at the level of the object of study and the associated historical analysis. On the one hand, the terminology of evolutionary epistemology (onta; epistemes; discursives) is used at the level of the object of study and the associated historical analysis, on the other, at the reflexive or self-reflexive level of criticism of modern historical research as well as at the level of one's own method and theory formation.

[52] This modelling follows the postulate of otherness. It should make transparent that the cultural, cognitive etc. determination of people from previous periods differ from a modern researcher's determination according to certain criteria. These criteria are derived from cognitive science and relate to a) the storage, processing and handing down of knowledge, b) the operation of the mental representation system, and c) the structure of the mental lexicon (including the cultural lacunae).

[53] Due to several reasons, a final definition of "culture" will not be given here. First, according to evolutionary theory, the basic dynamic processual aspect of human activity is assumed. In other words, everything humans cognitively produce is not independent from time and place, but is subject to a dynamic process. In other words, medieval people differ cognitively from modern researchers who study the culture of these people.

[54] These are the terms "sign", "code", "text", "communication" and "information".

[55] In the following, phenomena are understood to be "Erscheinungen, die unter die Kategorien des Verstandes gebracht wurden, also begrifflich bestimmte Erscheinungen". Cf. Apel (2011 p. 210).

[56] Thus, this study follows the cognitivist approach, i.e. the approach of cognitive science, cognitive linguistics and cognitive anthropology, according to which "culture" is conceptualized as the expression or result of cognitive processes manifesting themselves in thought and action (including speech).

[57] The term "discursives", which is identical with "sign carrier" in the triadic sign model, originates from the epistemologically and systems theory-based determined method of organizing knowledge, information and communication (WIKO) by Gerhard Budin. Cf. Budin (1996 p. 23). It refers to all communicative units or linguistic signs (sequences; phonetic patterns), which refer to sections of reality (onta) and which are directly linked to concepts or conceptual contents or mental descriptions of the onta (epistemes). From the point of view of semiotics, there is no direct relationship between discursives and onta. Thus, the discourses can only be related to reality through their conceptual content, i.e. epistemes. With regard to the historical sign, the dimension of the discursives ("imprint") corresponds to the object of study or the written information carrier or text.

[58] Starting from the basic assumptions of the dynamic logic of cognition of Charles S. Peirce regarding the relation between meaning and information and the situation semantics of Jon Barwise and John Perry based on them, it could be stated that there is an "information-preserving relationship" between discursives (here: imprint) and epistemes (here: seal). Cf. Barwise & Perry (1983).

[59] Thus, the object of study (*Untersuchungsgegenstand*) refers to the object of cognition (*Erkenntnisobjekt*) according to the concept of information by Fred Dretske. In the same way, the linguistic action (in spoken or written form) refers to the mental dispositions of the linguistic actor.

[60] The epistemological term "epistemes", which corresponds to the concept of meaning in the semiotic triangle, is understood as "units of knowledge" in the WIKO model of Gerhard Budin with reference to the "onto-epistemology" of Hans Jörg Sandkühler. See e.g. Sandkühler (1990 pp. 223-240).

[61] From the point of view of semiotics or semantics, the meaning (episteme) of a content word (sign, discursive) is directly linked to the phonetic pattern of the word.

[62] The epistemological term "onta", which corresponds to the term "object reference" in the semiotic triangle, refers – also in a twofold respect – to the object level. On the one hand, it denotes the section of reality that is determined by epistemes or mental representations of medieval actors (= authors of the texts to be studied; see below fig. 1 and 2), on the other, this term is determined by the postulate about the hypothetical character of all knowledge of reality. From this, it follows that this section of reality can only be modelled by historical methodology, but not reconstructed. On the other hand, on the theoretical-methodological level of the historical study to be carried out in this work, this concept emphasizes the problem of reality or the problem of objectivity or truth, which every science has to

deal with and whose solution is to be made possible by the distinction between categories of reality and categories of cognition. Thus, the claim to truth or objectivity, which plays a central role for historical research, especially in the German-speaking world for the epistemic level of scientific cognition, is not raised or negated. This is to refute the position of naive realism corresponding to positivism (Ranke), in which no distinction is made between categories of cognition and real categories. This epistemological position is not new insofar as already Anselm of Canterbury (c.1033-1109) in his dialogue *De veritate* differentiated between veritas ("truth") and rectitudo ("correctness"), whereby he understood the former as an ontological and the latter as an epistemic concept. Cf. Anselm of Canterbury, *De veritate* (Hamburg: Felix Meiner Verlag, 2001), ch. 2-13. Against this background, the concept of truth or objectivity is not suitable for characterizing scientific (here: historical) cognition, since it is by definition located on the epistemic level. Instead, the term "knowledge" should be used. The strict distinction between categories of cognition and real categories is at the same time regarded as a basic prerequisite for fulfilling the criteria of scientific integrity.

[63] The criterion of testability or of the verifiability of scientific statements or of a scientific theory, which is claimed for the present scientific study on a theoretical-methodological level and which is to be implemented in practice, refers back to Walter Eucken's postulate of explainability. It claims that science has to describe scientifically relevant facts by laws. Cf. Eucken (1954 p. 3). Historical semiotics can only partially do justice to the postulate of explainability inasmuch as it must first of all face the task of reflecting theoretically, methodologically and terminologically on "scientific relevance", the "concept of fact" and "regularity" (or regularities). Therefore, the criterion of testability, on the basis of which the interdependencies between ontic and epistemic units can be determined, represents a temporary compensation for the postulate of explainability.

[64] "Long ago, indeed, our great forebears, such as Michelet or Fustel de Coulanges, taught us to recognize that the object of history is, by nature, man. Let us say rather, men. Far more than the singular, favoring abstraction, the plural which is the grammatical form of relativity is fitting for the science of change. Behind the features of landscape, behind tools or machinery, behind what appear to be the most formalized written documents, and behind institutions, which seem almost entirely detached from their founders, there are men, and it is men that history seeks to grasp. Failing that, it will be at best but an exercise in erudition. The good historian is like the giant of the fairy tale. He

knows that wherever he catches the scent of human flesh, there his quarry lies.“ Cf. Bloch (1953 pp. 25-26).

[65] See Gurevich (1993 p. 39).

[66] The postulate of otherness is derived from the “presumption of otherness” (“презумпция инаковости“) of the object of cognition in relation to the subject of cognition. Cf. Gurevich (1978 p. 15).

[67] Anthropological universalism, as characteristic of 19th-century historiography, still represents a methodological foundation of research practice in the field of history. Cf. Kloft (1997 p. 3). The Swiss cultural historian Jacob Burckhardt (1818-1897) can be seen as the pioneer of this universalistic view of “humans”. In the preface to his “Weltgeschichtliche Betrachtungen”, he formulated his universalist maxim as follows: “*Unser Ausgangspunkt ist der vom einzig bleibenden und für uns möglichen Zentrum, vom duldenden, strebenden und handelnden Menschen, wie er ist, immer war und sein wird.*“ Cf. Burckhardt (1955 pp. 5-6).

[68] Empirically, this prevalence manifests itself in the historicizing concept of culture, which determines, for example, the current debate on the *Leitkultur*.

[69] In other words, the instruments of cognition of anthropocentric history should be developed with the help of the already established human sciences, but it must have a theoretical and methodological intrinsic value.

[70] They result from the diversity of sign and culturally and cognitively determined knowledge and coding systems of ES and EO.

[71] In other words, various barriers and obstacles must be overcome in order to obtain information from differently coded signs. However, their overcoming is only partially possible.

[72] These communication situations differ in terms of information content. This means that the original information content of K_{hist} may not match the information content that ES filters out in the course of K_{post}. This results in the essential principle of HS: The reconstruction of the past (= the abstract), i.e. the reconstruction of K_{hist} (= the concrete) is not possible, since ES did not participate in it, but, if they want to research a HZ, they have to create a new communication situation. The common denominator between K_{hist} and K_{post} is only the written information carrier, i.e. the text (= UG).

[73] See, for example, Hennecke (2015 p. 220).

[74] Cf. Bodmer (1961 p. 18).

[75] The term "pre-modern" is used dichotomously to the term "modernity" in Hannah Arendt (1906-1975). For her, there were three criteria that made the transition from pre-modernity to modernity possible: the discovery of America, the Reformation and the development of the telescope. Cf. Arendt (1959 p. 225). For us, pre-modernity ends with the establishment of astronomy by Galileo Galilei (1564-1642). This period of time is parallel to the end of the "Epoch of the Manuscript", which, with its main writing material, parchment, is a *pars pro toto* for the "pre-modern".

[76] Unlike the other information filters, IF5 is not, or to a much lesser extent, epoch-dependent, because it affects the decoding of texts as a whole and can therefore be assumed to be an analytical constant. That is why it was put in round brackets.

[77] These "glasses" are a pars pro toto for the EO. They correspond to the subjectivity of the researcher.

[78] It is tempting to assume the reference value of approx. 20% as determined by Albert Mehrabian for the informational part of verbal or written communication. Cf. Mehrabian (1981). In fact, this value is widely received. However, it does not concern verbal communication in general, but only its emotional dimension. It would therefore be more appropriate to tentatively assume an undefined value N. The fact that N must be well below 100% is based on findings from paralinguistics and intercultural communication research. At the same time, we are aware of the assumptions of autonomous language processing models, according to which the informational content in the output of language processing processes should be higher than in the input. Further research is needed to determine the informational input value in the historical-semiotic information channel.

[79] Typing errors, gaps in the text and other corruptions are a characteristic of handwritten text production in the pre-modern era. The empirical findings of modern writing research, according to which the process of (re)writing has so-called error clusters, can be used as an explanation. These are areas in which errors (caused by poor concentration, external disturbance factors, etc.) are particularly frequent. These error clusters increase with changing writers within a text. Cf. Kemnitz (2007 pp. 79-80).

[80] The semantic and pragmatic or contextual knowledge of the text producer (= speaker) and the text repro-ducer (who is at the same time the text recipient (= listener)) are per se different. Insofar as texts are *"Konstitutionsformen von Wissen"*, it follows from that that the knowledge of the text producer, which was encoded in the written information carrier during the process of creating it,

cannot correspond to the knowledge of the text reproducer or the recipient, who is only able to decode a fraction of the knowledge of the text producer in view of the informational barriers and obstacles discussed here. Cf. Antos (1997 pp. 43-63). In other words, the author and the copyist or reader, always understand the text in question differently.

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Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.