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## Philosophy of Historiography

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### Introduction

The distinction between the philosophy of *historiography* and the philosophy of *history* was designed to distinguish philosophical questions and concerns about the past (history) from philosophical problems and concerns about texts that may represent representations of the past, or are inferred from evidence about the past, or whose subject is the past, *historiography*.

The basic distinction between the past and its constituents such as events and processes, and its representations or descriptions or explanations in language, texts, sounds or images, is simple: The Industrial Revolution was a historical process. The Battle of Waterloo was a historical event. Books about the Industrial Revolution and Battle of Waterloo are parts of *historiography*. Historiography itself makes a minute part of history, historiography books were written in the past and their present exemplars are evidence for the history of the discipline of historiography, in the same way that sociology is also a tiny part of society and anthropology is a tiny part of culture.

As facile as this distinction appears, it is surprisingly easy to confuse history, the past, with historiography, its representation. The difficulty in distinguishing history from historiography is particularly acute, difficult to express and comprehend, in the English language because the same word, “history,” is often used to mean both the events of the past and the texts that historians write about them. “It is all history,” as is often said dismissively and inevitably confusingly. “The History of Rome” can mean what happened in the center of the Italian peninsula for a millennia, or it can be a title of a book about the rise and fall of the Roman Empire. The relation between

the book, the historiography, and the past, history, is anything but simple and generates the space where the philosophy of historiography can appear.

The Ambiguity of “history” is a greater problem in the English language than in some comparable languages. The German language creates easily new meanings through compounding existing words. In German, *Geschichte* is as ambiguous as *history*. But to distinguish clearly historiography from the past, one simply writes *Geschichtswissenschaft*, the science or rigorous discipline that studies history. To distinguish research about the past from the resulting representations of the past, a German speaker would distinguish *Geschichtsforschung* (historical research) performed by a *Geschichtsforscher* (research or scientific historian) from *Geschichtsschreibung* (historiography writing) written by a *Geschichtsschreiber* an author who represents history.

The only remaining ambiguity for the German speaker, which is the most important ambiguity for philosophers and for an article on the philosophy of historiography, is of *Geschichtsphilosophie*. It may involve the philosophical analysis of *Geschichte* history, *Geschichtsforschung*, historiographic research, scientific historiography or of *Geschichtsschreibung*, historiographic writing or narrative. The philosophy of history is close to metaphysics, but its ontology applied exclusively to past entities. The philosophy of historiographic research is close to some aspects of epistemology or the philosophy of science. The philosophy of historiographic writing is closer to aesthetics, the philosophy of literature and literary theory.

Building on the resources of the English language, such as they are, it is possible to restrict by philosophical fiat the use of *history* to refer to the past, its events and processes, to construct a narrower and more precise sense of “history” than in ordinary language. Historiography may however maintain some of its standard dictionary meanings, as the written result of inquiries about history-the past. *The Merriam–Webster Unabridged Dictionary* (3rd edn., 2003) defines *historiography* as “a. The writing of history; especially the writing of history based on the critical examination of sources, the selection of particulars from the authentic materials, and the synthesis of particulars into a narrative that will stand the test of the critical method. b. the principles, theory, and history of historical writing.” The *Shorter Oxford English Dictionary* (5th edn., 2002) defines *historiography* as “the writing of history; written history; the study of history writing.” In accordance with these already established uses of *historiography* we can reserve the use of historiography to representation of the past that result from *historiographic research* (*Geschichtsforschung*).

## Background

The philosophers who innovated by inventing the concept of the *philosophy of historiography* to distinguishing it from the *philosophy of history* (or the even vaguer *theory of history*) sought to replace prior philosophical jargon that distinguished *critical* or *analytic* philosophy of history from *substantive* or *speculative* philosophy of history. This terminology became obsolete by making untenable distinctions and philosophical assumptions. The distinctions between history and historiography and their philosophies are far simpler.

The project of *critical* philosophy, including philosophy of history, was closely connected with the Kantian and then Neo-Kantian project of examining the conditions of knowledge. While the philosophy of historiography may encompass the Kantian project of discovering the conditions of knowledge, there is much more to the philosophy of historiography than this Kantian project. Contemporary epistemology is not focused on the presuppositions for the possibility of knowledge in general, or of knowledge of the past in particular, this was eclipsed by the project of naturalizing epistemology and the overturning of the distinctions between the purely empirical vs. the purely a-priori, and the purely synthetic vs. the purely analytical, associated with Quine and Putnam. Philosophies of historiography could not remain isolated and impervious to such momentous shifts in philosophy in general and epistemology in particular.

“*Analytic philosophy of history*,” the conceptual and logical analyses of the language of historiography and the explication or pragmatic descriptive elucidation of the concepts historians use, may be part of the philosophy of historiography. But contemporary philosophy of historiography, like the philosophy of science, does much more than logical analysis of language and concepts. The philosophy of historiography examines the epistemology of knowledge of history, the *relation* between historiographic evidence, historiographic propositions, and history. Like contemporary epistemology it also examines the reliabilities of the methods historians use to infer historiography from evidence.

The mid-century debate about the logical structure of explanation in historiography following Hempel’s 1942 article, exposed the inadequacy of the research program that focused on the analysis of language and ignored its relation to evidence or the transmission of information from history to historiographic evidence. Philosophers of historiography are arguably as “synthetic” as they are “analytic” since they ask about the relations of words to the world, just as much as investigate the relations between words in languages. At any rate, since Quine, the very distinction between analytic and synthetic has collapsed, so an “analytic philosophy of history” makes no more sense than analytic philosophy of anything else, an impossible project. Indeed, it is symbolic that Arthur Danto changes the title of his 1964 classic *Analytic Philosophy of History* to *Narration and Knowledge* when he reissued it with some supplementary materials twenty years later....

*Substantive* philosophy of history has an unclear meaning. Presumably it was supposed to say something *substantive* about history that went beyond what historiography can and does assert about history. Traditionally, substantial philosophy of history was associated with the philosophy of history of Karl Marx and the philosophical lineage that led to him, Hegel and Vico, but also Comte, Spengler, Toynbee, and arguably Fukuyama (liberal democratic end of history) and Huntington (clash of civilizations) and so on. Most philosophers agreed that substantial philosophy of history should say something about the whole of history rather than a particular period or aspect of it, unlike historiography, and give history a direction or a meaning, which again historiography does not. Substantial philosophy of history may propose even the direction or *telos* of history like a classless society, a universal religion, or self-consciousness; and perhaps its laws, or at and at least some trends. This brought it close to the Judeo-Christian concept of history that also attempted to give a meaning to the whole of history and then trace it in historical events.

Substantial philosophy of history secularized the scheme following the disappearance of God from substantial philosophy of history and his replacement with state, nation, class and so on. Otherwise, there has not been much in common about the alleged *substance* of substantial philosophies of history.

The chief weaknesses of substantial philosophies of history were lack of proof or justification and apparent historiographic evidence to the contrary: History did not turn out as they had predicted. The only universal trend in history apart of entropy appears to be the absence of uniform trend. The term “substantial philosophy of history” was replaced then by “speculative philosophy of history,” essentially a term of abuse, invented to distinguish wild and crazy speculation from evidence based and rigorously founded scientific historiography and its philosophy. Allegedly Marx and Hegel speculated, while Ranke was something of a scientist. Meanwhile, the development of the social sciences in general and social theory in particular have taken over answering some of the general questions that substantive or speculative philosophies of history confronted, though less speculatively. Substantial philosophy of history has become then intellectually redundant, either discredited or replaced by social theory. The misidentification of the philosophy of historiography with philosophy of history, and philosophy of history with substantial-speculative philosophy of history has been at least partly responsible for abandonment of “philosophy of history” as an academic sub-field of historiography or philosophy.

The eclipse of analytic philosophy of history and the discrediting if not disappearance of substantial philosophy of history have led philosophers of very different orientations, approaches and views to avoid these terms as well as the confusing ambiguities of the “philosophy of history” and settle on the philosophy of historiography as their field. Though the expression “philosophy of historiography” may be found earlier in articles by Paul Hoyningen-Huene, Chris Lorentz, and in R. J. Blackburn’s review of Ewa Domanska’s *Encounters: Philosophy of History after Postmodernism*, the first systematic use of the term is in books by Aviezer Tucker (2004, 2008), John Lange (2010), and Jouni-Matti Kuukkanen (2015). They had to construct their field while defining it, but the concept seems to have caught on.

By comparison, in the philosophy of science the terminology is entrenched, widely accepted, clear, and distinct. Philosophers of science agree on the distinction between science and nature. And commensurably the philosophies of science and nature are well distinguished. Philosophers may debate then the prescriptive or descriptive relations between science and nature and even come up with a hybrid explicative relation. Philosophers of science can debate then whether science is “real,” and deserves a realist or anti-realist philosophic interpretation. Though philosophers dispute what are “philosophy” and “science,” they can usually agree on proper and improper use of the concepts of “science” and “nature.” They can communicate and debate on the basis of these shared conceptual vocabulary. By contrast, in the philosophies of historiography and history, there are no such wide agreements on the uses of concepts that allow undistorted or at least minimally distorted communication. Everything has to be built from scratch as it were.

In the rest of this essay then, I will sketch what I consider some of the main problems of the philosophy of historiography and distinguish them from problems in the philosophy of history. Since the philosophy of historiography as a philosophical sub-field is still a work in progress, my

analysis will not be exhaustive, and I am certain that other philosophers of historiography may propose a different accounts and classifications that would be neither more or less appropriate than what I am sketching here.

In my opinion, the philosophy of historiography resembles other philosophical meta-disciplinary sub-fields such as the philosophy of physics or the philosophy of economics. The main problems of the philosophies of historiography are epistemic: Historiographic evidence, confirmation, causation, explanation and understanding, objectivity, and realism, though it also touches on ethics and aesthetics especially in the form of the philosophy of narrative. Though the philosophy of historiography has distinct problems because it is a philosophy of a science that attempts exclusively to make inferences about the unobservable past, they are deeply intertwined with similar, analogous or related problems from other philosophical fields or sub-fields. To borrow Arthur Danto's vivid metaphor in reverse, the philosophy of historiography does not exist on some remote atoll where forlorn Second World War soldiers continue fighting an obsolete long extinguished war, oblivious of the results and indeed end of the war elsewhere. Rather, the major problems of the philosophy of historiography from causation to evidence and confirmation to objectivity are connected in their formulations, assumptions, and mooted solutions to similar problems in other philosophical fields, most notably though not exclusively, epistemology, metaphysics, philosophy of science, aesthetics, and ethics. The discussion of such problems in the philosophy of historiography is parochial or provincial unless it considers these adjacent or analogous philosophical discussions.

## Importance Today

### Scope

A common ambiguity in the ordinary uses of *history* and *historiography* and the philosophies of history and historiography is of their *scopes*. Sometimes history is used in ordinary language in a narrow sense, as past human civilizations that left written evidence. What preceded "history" in this sense then is "pre-history" the much longer period when humans existed but did not leave written records. The commensurable scope of historiography then is of the inference and representations of these civilizations that left documentary evidence that reached the present. These narrow senses of history and historiography are closely associated with the Rankean research program in historiography, the inference of historiography from documents that preserve reliably information transmitted from the past to the present.

But there is a broader sense of history and historiography that encompasses the whole past, including natural history from the Big Bang to the present, including the history of the cosmos, the history of our and other planets, the history of life, and so on. In this broader sense, the scope of history is all of the past: societies have a history, but so do rocks, languages, species, and indeed the universe. Historiography in this broader sense attempts then to infer representations of the histories of everything. The term "historiography" is rarely used in ordinary language for the representation of such long swaths of history. The older ambiguous term was "natural history" that again could refer both to the long past and its representation. Contemporary terms like "Big History" (David Christian) or History of Mankind (Yuval Noah Harari) also refer respectively to everything that transpired since the Big Bang or the emergence of the human race, or to their

representations. Philosophers of historiography and science like Elliott Sober (1988), Carol Cleland (2011), Derek Turner (2007), and Adrian Currie (2018) have resorted then to the less ambiguous “historical sciences.” The historical sciences are clearly distinct of their past subject matter, though they are broader than mere representations of the past because they include theories, methodologies, experiments in the present, analogies and so on that historical scientists use to infer probable representations of the past.

There are philosophical arguments for different scopes of history and historiography and for commensurable scopes of their philosophies of history and historiography that hinge on substantial disagreements in in the philosophies of history and historiography. Two arguments dominate the case for upholding the “classical” narrower scopes of history and historiography. First, according to the original Rankean research program, reliable historiography, knowledge of the human past, can be inferred only from documents that were not written for posterity, but have been preserved, often in archives. But this limitation of the evidential base has become obsolete since historians developed methods for reliable inference of information about the past not only from material remains, artefacts, art, shapes of landscapes and so on that originated roughly in similar or slightly extended historical periods to those that classical Rankean historiography examined, but also from evidence preserved from “deeper” history that far precedes the “Rankean” eras of history, such as genetic analysis of present and fossil DNA, analysis of cognate languages, and anthropological and archaeological evidence.

A second more philosophical than historiographic disagreement is about the nature of history, the subject matter of historiography and how it differs or not from nature and commensurably how historiography differs or not from other rigorous fields of knowledge or sciences. Some philosophies of historiography consider historiography different or even special for having a human subject matter because their concept of history is exclusively human. Such philosophies of historiography argue that forms of representation such as narrative, understanding, and explanation in historiography are different because of this special human subject matter and therefore share more with other human sciences such as the social sciences than with sciences that From this perspective, *history* would refer then exclusively to the human past and *historiography* would represent exclusively the human past, though it would not be limited to the inference of descriptions of the past from documentary evidence as in classical Rankean historiography. Historiography would be limited only by the evidence available for historical forms of the human mind or ideas, usually in the form of documents and other artefacts.

The idea that the human subject matter of historiography dictates different methods from those of other sciences that have natural subject matters has been challenged since the establishment of scientific psychology in the middle of the 19<sup>th</sup> century. Following the establishment of psychology, Neo-Kantian philosophers of historiography like Windelband and Rickert denied *ontological* differences between the subject matters of historiography and the natural sciences. The Neo-Kantians had to look for other distinctions as foundations for borders. They suggested then a difference in the *goals* between sciences that aim at an exhaustive description of unique events and those that aim at the discovery of universal laws. But exhaustive descriptions of historical events are often epistemically challenges by the paucity of evidence and the inaccessibility of the past.

A contemporary approach to the scope of historiography is epistemic. It may rely on the epistemic primary basis of historiography, *testimonies*. Epistemology distinguishes five *and only five* types of basic sources of knowledge that generate together all the knowledge we possess: *empirical*—from the senses (you see the letters that make this sentence); *rational*—from reason (you know from rational intuition that  $22+25=47$ ); *introspective*—from self-knowledge (you have unique access to how you feel about reading this essay and the meaning or significance it has for you in relation to your intentions); from *memories* (you know what the earlier parts of this book or article were about because you remember them); and *testimonial*—from what people tell each other orally or in writing, because somebody or somebodies said so. For example, everything you know about the meeting in the Tennis Court during the French Revolution, the discussions Churchill had with his cabinet, and for that matter everything you probably know about Antarctica are traced back to something that somebody or somebodies said or wrote: testified. You have not seen these events with your own eyes; you were not born with rational knowledge of them, they are not parts of you, and what you remember about them is *only* from testimonies you heard in the past. The difference is that in principle though not necessarily in practice you can travel to Antarctica to gain basic empirical knowledge of the conditions on that continent, while you cannot travel to 18<sup>th</sup> century Paris. Cinematic representations, even convincing ones, are neither depictions nor descriptions. There are some non-testimonial material-empirical basic sources of historical knowledge, like material remains of buildings or fields, but by and large, most of the basic sources of historical knowledge are testimonial. This creates a clear distinction between historiography and the historical sciences like Cosmology or evolutionary biology that are clearly not based on basic testimonial sources of knowledge.

Historians and people in general acquire knowledge from testimonies in two ways: They can evaluate reliabilities of single testimonies or they can trace back the origins of multiple testimonies. Historians at least since Ranke developed methods for evaluating some testimonies as more reliable than others, trust some testimonial sources and distrust others. For example, contemporary bureaucratic reports and diary entries are more reliable than memoirs because there is less time for memory to distort and no motivation for the witness to deceive

Historians value *independent* detailed historical basic sources or testimonies, for example, personal diaries of politicians who attended meetings and recorded them meticulously and coherently. Understanding the epistemic foundations of inferences from detailed independent and coherent testimonies as basic sources of knowledge, without resorting to Bayesian probability theory (Tucker 2016) can be helped by bringing a simple example from everyday life: Suppose I have an excellent dinner with a friend at a busy restaurant and I advise you to do the same but make a reservation first. You ask me for the phone number but I answer that I do not recall it. You ask me to take a guess and blurt out the first seven-digit number that comes into my mind when I think of the restaurant. I play along, but add that you should not trust me on this, since my intuition of the number is highly unreliable. We can agree that you do not know the correct phone number because by my own evaluation, my testimony was unreliable, and I could not transmit information more reliable than my own testimony. But suppose that after receiving my unreliable testimony you repeat the same exchange with my dinner partner who could not have overheard our earlier conversation, and so her testimony is independent. She then repeats the same phone number with an equal degree of unreliability. Irrespective of our self-attested unreliability in this matter, the probability that the coherence between our testimonies is coincidental is about  $0.0000001^2$  (approximately because the prior probability of all phone numbers is not identical). You still need

to eliminate the possibility that we played a practical joke on you, or that we repeated unconsciously some phone number that had nothing to do with the restaurant, such as our hotel's, but if you are successful, the two independent, detailed, but unreliable testimonies generated reliable knowledge. Historians (and detectives, intelligence analysts, and investigative journalists) repeat this process of inference from testimonies habitually, so much so that they are not even aware of it in a theoretical sense. They cannot formulate it theoretically, but they can correct each other if they stray from the correct form of inference because they have implicit knowledge of it, much like we know the grammar of our mother tongue or how to change a tire without being able to theoretically formulate it and teach it to others. The inference has to be of something surprising, of low prior probability, for example because it is detailed, such as the details of an important meeting. The testimonies must cohere in their significant details but not be entirely identical because then they would indicate prior coordination between the witnesses that do not reflect a common experience. Obviously the multiple testimonies must be independent of each other. The reason is that it is highly unlikely for detailed testimonies of low prior probability to cohere without a common origin. If the common origin can be traced to a historical event, then the historian can safely infer from the testimonial evidence probable representations of events.

The uniquely central role of the epistemology of testimony in the philosophy of historiography is undeniable. Yet, it may be argued that similar inferences of origins of information transmissions from information preserving non-testimonial evidence in the present are distinctly typical of all the historical sciences, including phylogeny, comparative linguistics, and cosmology.

Philosophers argued that there are common and unique ontological features to the past. These unique properties of all forms of history are shared by all past events irrespective of whether they are human, of peoples, or of species, rocks, or stars. The concept of philosophy of historiography that all these approaches share while disagreeing about the details is that the historical sciences, or historiography written large, the historiography of everything, are concerned with the inference of unobservable token events that happened at a particular time and space from their present traces such as effects, information preserving receivers, and waves. The epistemology of historiography is based then on the special ontological properties of the past as the past. The philosophy of historiography focuses then the questions of historiographic knowledge, knowledge of the past.

Philosophers of historiography disagreed on the details of the inference of past token events from present traces and on the theoretical assumptions necessary for such inference from the present of the past. Some argued that the inference is of past common causes from their shared effects (Sober 1988). Others, concentrated on the conditional asymmetry between the past and the future (Cleland 2011 following David Lewis), or the asymmetry of waves moving outward from the past to the future (Cleland 2011 following Popper). Tucker (2019) proposed that historiography written large is about the inference of the origins of information signals in the past that could be cosmic events, drifting contingents, species, historical events, and so on from information preserving receivers such as cosmic rays, particles, and waves received in the present,



present continental shelves and continents, present DNA and homoplastic traits, and archival documents.

### “Empirical” Historiography

The very idea that historiography is or even can be an empirical science, that history can be observed somehow and then described, and that there are simple historical facts that are in a sense such atomistic simple descriptions are mostly founded on lack of appreciation of the distinction between history and historiography and its implications for the philosophy of historiography.

Rickert thought historians can choose which of the many “empirically given” aspects of history are sufficiently significant for historiography. However historians cannot observe history as through a microscope, nor can they represent history as Picasso painted faces, fruits, and guitars, or even more figuratively. Historiography has no direct access no empirical knowledge of history. Historiography cannot be an empirical science in any observational sense. The historical train had always left the station before the historians could arrive. Since history is essentially *unobservable* the evidence in the present constrains historiography. There are many historical events and processes historians would find important that did not generate evidence that reached the present because of the capricious censorship of time and entropy, for example, the languages and religions of humans during the last ice age and the texts of the pre-Socratic philosophers. Vice versa, there is evidence for many boring aspects of the past. For example, much of what we know about ancient philosophy was chosen by Diogenes Laertius, a mediocre thinker who cared little for the philosophical significance of his topic. The degree of individuation, detail, and information richness in historiographic representations depends on the information from the past that reaches the present, and on the theoretical knowledge of historians that allows them to extract that information from the evidence. In this sense, historiography is theoretical before it makes a single inference about the past, because it relies on information theories about the transmission of information in time from events to evidence

“Ideographic,” empirical-descriptive, philosophy of historiography was imputed to Ranke by decontextualizing quotes. Ranke distinguished critical historiography from the philosophy of history, teleological universal history, and from the rhetorical pedagogical purposes of ancient historiography, by writing that the purpose of historiography is to tell it how it was. In saying that all historical periods are equal to God, Ranke meant that his research program does not privilege the study of any period, especially the Classical period as more important than another, such as the Middle Ages. Ranke never intended to deny the distinctions between history and its philosophy and historiography and its philosophy. The original meanings of Ranke’s positions appear trivial today because classicist nostalgia and teleological universal philosophies of history are passé. Ranke’s success has been so complete, that to give his statements some non-trivial meaning, they must be misinterpreted out of context. Yet, historians cannot *describe* history as unique or as composed of unique singular events because they cannot *describe* history, period.

Frank Ankersmit (2001, 2012) attempted to generate a philosophy of historiography that combines the two extremes, simple descriptive empiricism for “historical facts” and historiographic narratives that are about themselves as much as about history. Ankersmit’s

understanding of representative narratives is strongly affected by aesthetics. Artistic representations may describe an object, but may also represent it with a particular style that is about the art work itself rather than the world. Still, the “empirical” aspect of Ankersmit’s philosophy of historiography shares the weakness of the Neo-Kantian approaches—there is no history to observe.

### The Epistemology of Historiography

The philosophy of historiography is largely concerned with the epistemology of historiography, whereas the philosophy of history is more concerned with the metaphysics of the past. The philosophy of historiography inquires how historians or institutional historiography gain knowledge of the past. Does that knowledge depend on particular relations between history and historiography such as transmission of information, causation, or the preservation of traces? Or is historiography independent to a large extent of history and the evidence it generated, but reflects other factors or biases, its own era rather than the past? Is all historiography contemporary historiography, about its own era at least as much as it is about the past? Historiography may or may not go beyond inferences from the evidence or traces of the past by structuring information from the past in narrative forms, and adding value-laden judgements. Obviously, historians have as their given premises only the evidence that received and preserved information from the past in the present. Everything else requires a process of inference. The most obvious question of historiography is how historians infer historiography from the evidence. Evidence rather than events or explanations is primary.

If the philosophy of historiography infers past events from information preserving receivers, descriptions of some of properties of common origins and their inferences may be more or less information rich, from the least informative “some common origin” without properties (e.g. some species had a common ancestor without knowing anything about it), through a range of possible origins that specify *some* of their properties, to the uniquely identifiable properties of the origin. Inferences in the historical sciences can then be summarized in the following table:

Table 1: Inferences of Common Origins vs. Likelihoods of Receivers, given common origins

Level of Informativeness	A. Likelihoods of Receivers	B. Inferences of Origins
1. Information rich representation of the identifying properties of the common origin	1a. The inference of likelihood of information preserving properties of receivers given a uniquely identified token common origin. For example, given an entry from Wikipedia, it is likely that students who submitted similar essays cut and pasted paragraphs from it.	1b. The inference of a unique common origin from its information preserving receivers. For example, copies of today’s daily newspaper infer the exact properties of the original computer file that was printed.

2 A range of possible common origins	2a. The inference of high likelihood of receivers given some of the properties of their common origin. For example, the likelihood of the similarities between the encyclopedic-style essays of some students is higher given common encyclopedic origins than given other common origins.	2.b. The inference of a range of possible common origins from correlated receivers. For example, when quality newspapers report coherently about a closed meeting, their sources/origins must be some of the people who participated in the meeting.
3. Information poor: some common origin with unspecified properties.	3a. The inference of higher likelihood of information preserving receivers given some unspecified common origin than given separate origins. For example, the nearly identical essays students submit are far more likely given some common origin than independent authorships.	3b. The inference of some common origin from its receivers. For example, two physically identical persons must be identical twins, they must have had the same set of unidentified parents.

Inferences of origins from receivers on the right “b” column assume implicitly the vanishing likelihoods of coherent receivers without some common origin on the left “a” column. Inferences of *likelihoods* consider explicitly separate origins as alternatives. Inferences of origins from receivers are at the vanishing end of the spectrum of likelihoods of coherent receivers without common origins. When that likelihood is obviously, even intuitively, negligible, it is possible to directly infer origins from correlated receivers. For example, the likelihood of identical twins with different parents or identical copies of a text that did not originate with the same copy are so negligible that they are assumed implicitly.

The more information rich common origins imply the less informative ones, 1 implies 2, 2 implies 3. Vice-versa, the more informative probable inferences assume the less informative ones as necessary but insufficient conditions: 1 assumes 2 that assumes 3. Historically, the historical sciences or historiography written large progressed in an increasingly informative direction, establishing first that probably there was some common origin (3), then narrowed the range of possible origins (2), and finally (if at all) proposed the identity of the origin (1). For example, the history of evolutionary biology-phylogeny displays progress from recognizing the

likelihoods of receivers (species) given some common origin to identifying some of the properties of those origins to identifying the ancestral origins. At the first stage, Darwin distinguished similarities between species that resulted from homoplasies similar adaptations to similar environments without a common ancestor, from those that retained information about their common origins, *homologies*. When genetic techniques improved and gaps in the fossil records were filled, it became possible to progressively narrow the range of possible common phylogenic origins-ancestors, sometimes to an identifiable species.

The likelihood of correlated receivers given some common origin must be compared with their likelihood given the only alternative, separate origins. For example, how likely is it that students submit identical exams without a common origin? This very low likelihood rises substantially if the identical exams are in mathematics or logic where there are unique optimal solutions, separate origins of an identical type. The likelihoods of correlated receivers given separate origins is affected by the *function, adaptational advantage, or rationality* of the correlated or shared properties of the receivers. For example, *homoplasy*, similarity of physiological properties, preserves information from similar *types* of environments that constitute separate origins. Homoplasies are likely given separate origins that are tokens of the same types. By contrast, dysfunctional or useless properties that receivers share, such as Darwin's *rudiments*, redundant properties of species such as the feathers of birds that cannot fly, the finger bones of sea mammals and bats, or the tail bones of tailless animals, just like mistakes in copied manuscripts, are highly unlikely given separate origins, they are then likely homologies that share a common descent. The likelihood of any such receiver is low; the likelihoods of correlated receivers given separate origins is vanishing. The likelihood of unlikely (e.g. non-adaptive) information preserved in receivers given some common origin, even when low, is still significantly higher than its likelihood given separate origins. *Multiple receivers that share information that is unlikely decrease exponentially their likelihood given separate origins.* Multiple receivers such as testimonies, species, languages, copied manuscripts and so on *do not increase their likelihood given some common origin; they decrease exponentially their likelihood given the only alternative, separate origins.* A significant gap between roughly estimated likelihoods of correlated receivers given some common origin and separate origins is sufficient for attempting to move to a more information rich inference.

If the receivers are considerably more likely given some common origin than given separate origins, it is possible to attempt to infer the path the information signals took from the origin to the receivers to infer more of the properties of the common origins. The paths that lead signals from some common origin to receivers are *independent* or *dependent* and originate in a single origin or multiple origins:

Table 2: Information Pathways from Common Origin to Receivers

	1. Independent Paths	2. Dependent paths
A. Single Origin	1A. A <i>single ancestral common origin of independent receivers.</i> For	2A. <i>The common origin may be one of the apparent receivers.</i> For example,

	example, students plagiarized individually the same common origin.	the students copied an exam written by one of them.
B. Multiple Origins	1B. <i>Several ancestral common origins of independent receivers.</i> For example, similar exams essays were plagiarized from the same books.	2B. <i>Receivers may be both origins and receivers.</i> For example, similar exams may be the result of the collaborative work of their authors.

Some groups of receivers may preserve both independent and dependent information that combines 1A or 1B paths with 2A or 2B paths. For example, students may consult a textbook (1A) before composing together (2B) the exam; humans and chimpanzees had a common ancestor (1A) but after a period of separation between the species, there was a period of hybridization (2B) followed by final separation. The greater similarity between human and chimpanzee X chromosomes in comparison with autosomes indicates the hybridization.

*Independence of receivers is the absence of intersection of information signals along the channels that connect their common origins with the receivers.* Dependent receivers do not add information; they are noise. Independent, information rich, and coherent receivers that had some common origin, are not likely if their information content does not preserve signals from their common origin or origins.

Ascertaining whether channels that transmitted information signals intersected requires evidence that may be nested in the receivers themselves. For example, hybridization between species usually leaves traces in their DNA. The combination of documents of different origins in texts is marked by shifts in grammar and vocabulary, surprising shifts in narrative or topic, and contextually unfitting insertions. Evidence may also prove that information signals could not have possibly intersected. For example, the police and historians may trace movements and communications between witnesses to assure that they could not have communicated and are therefore independent. If there is sufficient evidence to prove independence, or if there is sufficient evidence to “peel off” layers of “contaminating” dependent noise to recover the signals, scientists may attempt to infer the properties of common origins.

The more information receivers preserve, the more alternative hypotheses about their origins can be eliminated, and the narrower is the range of possible common origins. The likelihoods of information coherent receivers, given competing properties of their origins, depend on the prior probabilities of the hypothetical common origins (the coherence of the proposed common origin with everything else known prior to examining the receivers) multiplied by the *reliabilities* of the information preserving properties of the receivers. For example, how reliable are the independent accounts of a meeting, and how coherent are they with everything else historians have already established about that period.

The *reliability* of information transmission measures the probability that receivers preserve information signals transmitted from their common origin. Each time the information is copied, for example, when a testimony is retold or a manuscript is copied, the information signals decay and mix with noise. *Ceteris paribus*, the more times the information signal is copied, the less reliable it becomes. The least copied signals are *ceteris paribus* the most reliable. For example, historians value primary sources that were never copied. Assessments of reliabilities of information signals may also depend on information theories and evidence for intermediary stages in the information transmission between the common origin and the receivers. For example, *ceteris paribus* oral copying of verse is more reliable than of prose.

When the rate of copying, the number of times a type of information signal is copied in a unit of time, tends to be constant, for example in biological reproduction, and the reliability of each copying is *ceteris paribus* constant, for example in parts of the DNA that do *not* affect survival and reproduction, the reliability of receivers given common origins is commensurable with time. In Genetics, when paired copies of a gene stop recombining (i.e. they become epistemically independent of each other), their sequences tend statistically to diverge in direct proportion to the time since the separation, constituting a genetic “clock”. It is debatable whether the higher rate of mutation of natural languages also tends to be constant and whether therefore degrees of correlation between independent languages that had some common origin can likewise measure how long ago they split from each other.

When reliabilities of information channels are not constant, for example when voluntary human agency affects reliabilities as in much of human historiography, the evaluation of reliabilities requires the examination of evidence for signal transmission. The discoveries of evidence for stages in signal transmission from origins to receivers help discover what was lost (decayed) or added later (noise). For example, the Septuagint is evidence for the state of the Hebrew Bible in the third and second centuries BCE, as fossils of extinct organisms are evidence for stages in biological evolution, and texts in Middle English are for a stage in the evolution of the language.

### Historical and Historiographic Realism

When everything is “history” it is too easy to confuse the ontology of history with that of historiography. But the ontologies of historiography and history are different, though related. The ontological status of Napoleon, the French General and Emperor, is one thing. The ontology of the narrative representation of his life and time is another. Most significant is the relations between the ontologies of the philosophies of historiography and history. Are they both realist; or is historiography open to an anti-realist constructive interpretation while history is still realistic in some sense? Is historiography a probable interpretation of the evidence, or a coherent fiction that is as much about itself as it is about history? A realist or anti-realist interpretation of historiography hinges almost entirely on its alleged relation with history. For this reason, the old “analytic philosophy of history” research program that concentrated exclusively on the logical structure and conceptual meanings of the language of historiography was deficient, much like the later narrative analysis of historiographic texts that used very different analytical tools developed

by structuralist and post-structuralist literary theory, without paying too much attention for issues of evidence, justification, validation, and probability.

The historiography of science can trace the development, evolution, changes, and replacements of scientific theories. It may be possible to try and use the history of science as represented by the historiography of science as a base for statistical inference by induction of the probabilities that the present scientific theories will also be replaced, “this too will pass,” as Joe Biden put it in a different context. This has led to what Larry Laudan (1981; cf. Wray 2015) called “the pessimistic induction,” the inference from the historical abandonments of scientific theories as false or inadequate during the history of science, that *all* scientific theories will be disproved or abandoned, and hence are not realistic representations of the world, though there may be other reasons to accept them. However, there is no such pessimistic induction in historiography or the historical sciences. Critical historiography, evolutionary biology, phylogeny, continental drift hypothesis, red shift and the expanding universe from the Big Bang, and the phylogenies of language families such as the Indo-European family were never overturned. Since there has been one and only one paradigm in historiography and the historical sciences, the results of historiographic research would favor an “optimistic induction” in the historical sciences. To be sure, we know much more today than Ranke and his disciples knew, but we did not overturn their conclusions. The best explanation of this staying power may be a realist interpretation of historiography, in other words, Ranke got it right.

#### Values and their hierarchies

Philosophers of historiography have been debating whether historiography should or should not be value laden in its moral and aesthetic sense. Berlin (1969) argued that the presence of values in historiographic interpretation is inevitable, or there could be no assignment of historical responsibility, praise or blame, to past historical agents. Some historiographic texts, for example in the historiography of music, are possible without making aesthetic and moral judgement, but they may be boring; few would be interested in reading a book on the history of music that would make no aesthetic judgments and treat Vivaldi and Stravinsky equally without making comparative judgments.

Value laden assumption of historiographic significance must arguably at least inform the choice of which probable historical truths to represent in historiography texts and which to leave out as insufficiently significant. (Dray 1993, 46-54) Modern historiography for which there are massive amounts of evidence requires selection or be unmanageable and boring. Do we really want or need to know about each of Toscanini’s love affairs or what he ate for breakfast on the day of the world premiere of Verdi’s Othello?! The values that underline the selection of historiographically meaningful representations do not have to be cultural, as Rickert argued because non-cultural events such as the Big Bang, the creation of the solar system, or the inter-species merger of Neanderthals and Humans can be very significant without being conceptualized as products of culture.

It is possible to write historiography without ethical and aesthetic judgements. Very focused historiographic works about topics that have very little evidence, may rely exclusively on

cognitive values and simply infer all that can be inferred on a topic such as ancient Egyptian music from the extant evidence without significant selection and evaluation. But it is impossible to write historiography free of the cognitive values that underlie the theories that allow historians to agree on inferences from evidence. Cognitive values determine which statements are worthy of being considered knowledge, absolutely or in comparison with competing statements. Kuhn (1996, 184–6) suggested that the scientific community is constituted by cognitive values: accuracy, consistency, scope, simplicity and fruitfulness. Cognitive values in historiography include the critical approach to the evidence, value laden distinctions between reliable and unreliable testimonies about the past, and the higher value of historiographic hypotheses that explain a broader and more diverse range of evidence. (Tucker 2004, 2014) Cognitive values have changed more slowly than theories in the history of science. If shared cognitive values are necessary for forming beliefs, the expertise of historians may have to be qualified as relative to particular sets of cognitive values that have been shared by historians since Ranke founded the paradigm of historiographic science and knowledge.

Readers of historiography, who read multiple historiographies that make inferences from similar evidence, can distinguish differences that are due to different systems of moral and aesthetic values or considerations of significance from those that result from different cognitive values. For example, a historian of music who has romantic aesthetic values may write a history of music that not only praises the romantic composers in comparison with what came before and after then, but also pays more attention to Beethoven, Schumann, and Brahms as more significant, than composers who came before Haydn and since Mahler. Of all of Mozart's opus, such a historian would pay special attention to Don Giovanni, especially following the arrival of the dead *comendatore* for dinner at Don Giovanni's invitation. All this would not violate any cognitive value. But such a historian, who does *not* share the cognitive values of professional historiography, may write a historiography of Beethoven as a romantic hero that would be based on uncritical evaluation of posthumous romantic legends on the composer while overlooking credible evidence that may not fit the narrative about a romantic hero, such as Beethoven's keen interest in financial investments.

## In the Future

### The Historiography and Philosophy of Historiography

An attractive approach to the philosophy of historiography may be to imitate the successful research programs in the historiography, sociology and philosophy of science. At least since the sixties, the philosophy of science attempted to answer philosophical questions about what science is and how it operates changes and generates knowledge and beliefs by examining what scientists have been doing by using the tools of historiography and the social sciences. Rather than examine "science" and its relation to nature ideally or by deduction from philosophical theories, the united program of history, sociology and philosophy of science has attempted to build the philosophy of science from the bottom up by looking at what scientists have actually been doing.

The challenges facing philosophies of historiography that attempt to rely on the methods of historiography itself to philosophize about historiography may resemble known criticisms of



the program of the History and Philosophy of Science: Throughout history scientists have been doing many different things. Their theories and practices, indeed the very meaning of science, have evolved in history. Different sub-fields of science use very different methodologies and practices. It may be difficult then to generate general philosophies of science that may fit everything scientists have been doing in the history in very different fields. However, historiography or the “historical sciences” in general have displayed a greater degree of homogeneity, theoretical and methodological agreement, than the sciences. Unlike sciences like physics, the historical sciences have had one and only one, initial, scientific revolution, and since then have expanded *progressively* but not *revolutionarily*. New historiographic theories have been introduced, but they have not replaced each other. Braudel’s annals methods and theories added to Ranke’s methods and theories to create progress in historiography, but Braudel’s theories did not replace Ranke’s theories, or prove his conclusions were wrong, as Einstein’s theory of relativity made Newtonian mechanics obsolete.

Within historiography or the historical sciences, there have been no apparent anomalies or negative heuristics of the kind that Kuhn believed indicate looming crises in the sciences and impending paradigm shifts. To be sure, the methodologies of historiography did not stagnate in the Rankean archives, but *expanded* to include methods for inference from other kinds of evidence like material evidence, archaeological remains, or works of art. But Ranke’s paradigm that sought to distinguish evidential sources according to their reliabilities, the degree to which they are likely to preserve information from the past, and then compare independent evidential sources to infer their probable origins has not been overturned. Nor has the information transmission theories Ranke used to infer past events from present evidence been discredited or replaced: Historians still prefer information preserving primary sources like bureaucratic reports written immediately after the fact to less reliable sources like memoirs. The origin of the current paradigm in historiography is academic philology in the second half of the 18<sup>th</sup> century. But this paradigm expanded globally and generated a socially uniquely heterogeneous consensus on much of historiography. (Tucker 2004) A revolutionary replacement of this paradigm would have implied changing the cognitive values and information transmission theories that underlie historiography, as well as comparative historical linguistics, archaeology, and other historical sciences. This has not happened in the last quarter millennium. Therefore, a research project for the philosophy of historiography, bootstrapped by the historiography of historiography may be more promising than a philosophy of science founded on the historiography of science, a program that by itself is considered successful by many. What is needed is an integration between the philosophy of historiography and the historiography of historiography, a fairly established sub-field of historiography that is taught usually as a seminar on the graduate level, if not earlier, but often without excessive theorization, let alone philosophy.

#### Distinctions from Philosophy of History

Finally, I want to clearly distinguish contemporary philosophy of history, the direct philosophical examination of history, from the philosophy of historiography. If we exclude 19<sup>th</sup> century-style speculations about the meaning and directions of history, there are still a few topics of philosophical discussion that examines philosophical questions about history rather than

historiography: Whether history is necessary or contingent, whether it has a necessary direction or whether it is coincidentally contingent. The philosophy of history parallels then sub-fields of metaphysics that examine ultimate reality and its constituents in certain realms like nature, while the philosophy of historiography resembles more epistemology.

The philosophical project then is to distinguish conceptually *historical necessity* from *historical contingency*. This distinction may be based on the sensitivity of historical events to initial conditions. (Tucker 2004, 220-239; Ben-Menahem, 1997) A larger philosophical debate has raged over whether human and natural History are contingent or necessary. Stephen Jay Gould was a noted exponent of contingency while Richard Dawkins tended to advocate necessity. If history had a single contingent episode, all that followed must be contingent. Yet, each historical episode may be considered independently as necessary or contingent. The evaluation tends to be according to the evidence for historical counterfactuals that experiment with different initial conditions. (cf. Inkpen & Turner 2012; Sterelny 2016) The evaluation of the contingency or necessity of an effect requires justifying historical counterfactuals, suspending belief in the evidence that contradicts the counterfactual and using the rest of the evidence to distinguish between the probabilities of hypotheses, for example, on the basis of rules of succession (had the President died, the vice-president would have become the President).

Processes that would have turned entirely different had things been slightly different, like the proverbial “butterfly effect” when the flapping of butterfly wings in Brazil cause a tornado in Texas, or in politics, “for want of a nail, the kingdom fell,” are contingent. Necessary processes are insensitive to initial conditions, often because they are overdetermined. For example, a firing squad overdetermines execution because of the causal redundancy of most of its members. Likewise, large historical processes like the Industrial Revolution had multiple overdetermining causes. The Holocaust was contingent on Hitler’s personal obsession with Jews.

Sterelny suggested that “historical trajectories are robust when they depend only on aggregate effects of interactions in populations” or when they are “well-designed mechanisms,” simple, isolated from perturbations, yet with redundancies. As he put it, “Contingency affects mostly, or most directly, the explicit targets of command-and-control decision-making. Politics is the engine of contingency.” (Sterelny 2016, 536) The advance of command and control institutional and especially state structures has increased the fragility of history by concentrating power in few erratic hands. (Sterelny 2016, 534-7) This is a bit too simple. Well-designed institutions can act as such robust mechanisms. The institutions of liberal democracy were designed to reduce contingency. These designs are now being tested as they have not been for a long time. The philosophy of history is relevant then also for the social sciences such as politics.

### Conclusion

The philosophy of historiography is still very much work in progress. There is much theoretical and conceptual work to be achieved not only to try and answer the basic problems of the field, but also to formulate them. There are basic problems about the nature of the knowledge of that historiography provides: evidence, inference, confirmation, theories and facts. Then there are the classical problems of elucidating historiographic explanation, causation, colligation, and

understanding, as well as objectivity. The relation between historiography and the human, social, and historical sciences is still controversial. The narrativist research program that began with Hayden White may or may not have exhausted itself (cf. Kuukkanen 2015). The aesthetics and ethics of historiography are also topics that could use significant development. Finally, sub-fields of historiography may raise particular philosophical issues, whether they are particular historical sciences like phylogeny, archaeology, comparative historical linguistics, cosmology, and so on, or whether they are sub-fields of historiography in its narrow sense like social or cultural historiography.

In this article, I gave a general overview of the topics of the philosophy of historiography that are closest to my areas of concern: mainly epistemology. But there may be other epistemologies and other areas of the philosophy of historiography, a still new and uncharted territory.

### **Further reading**

Currie, Adrian (2018) *Rock, Bone, and Ruin: An Optimist's Guide to the Historical Sciences*, Cambridge MA: MIT Press.

Day, Maruk (2008) *The Philosophy of History: An Introduction*. London: Continuum.

Kosso, Peter (2001) *Knowing the Past: Philosophical Issues of History and Archaeology*. Amherst NY: Humanity Books

Kuukkanen, Jouni-Matti (2015) *Postnarrativist Philosophy of Historiography*. New York: Palgrave-Macmillan.

Lange, John (2010) *The Philosophy of Historiography*. Open Road Media.

Murphey, Murray G. (1994) *Philosophical Foundations of Historical Knowledge*. Albany NY: SUNY Press.

Tucker, Aviezer (2004) *Our Knowledge of the Past: A Philosophy of Historiography*, Cambridge: Cambridge University Press.

Tucker, Aviezer ed., (2009) *A Companion to the Philosophy of History and Historiography*. Malden MA: Wiley-Blackwell.

Turner, Derek (2007) *Making Prehistory: Historical Science and the Scientific Realism Debate*, Cambridge: Cambridge University Press.

### **References**

Ankersmit, Frank (2001) *Historical Representation*. Stanford CA: Stanford University Press.

Ankersmit, Frank (2012) *Meaning, Truth, and Reference in Historical Representation*. Ithaca NY: Cornell University Press.

- Ben-Menahem, Yemima. (1997) "Historical contingency." *Ratio* 10, no. 2, 99-107
- Berlin, Isaiah (1969) "Historical Inevitability," in *Four Essays on Liberty*, Oxford: Oxford University Press, 41-117.
- Cleland, Carol E. (2011) "Prediction and Explanation in Historical Natural Science," *British Journal for the Philosophy of Science*, 62, 551-582.
- Currie, Adrian (2018) *Rock, Bone, and Ruin: An Optimist's Guide to the Historical Sciences*, Cambridge MA: MIT Press.
- Dray, William H. (1993) *Philosophy of History*, second edition, Upper Saddle River NJ: Prentice Hall.
- Inkpen Rob and Derek Turner (2012) "The topography of historical contingency." *Journal of the Philosophy of History* 6, no. 1, 1-19.
- Kuhn Thomas S (1996) *The Structure of Scientific Revolutions*, 3rd ed. Chicago: Chicago University Press
- Kuukkanen, Jouni-Matti (2015) *Postnarrativist Philosophy of Historiography*. New York: Palgrave-Macmillan.
- Lange, John (2010) *The Philosophy of Historiography*. Open Road Media.
- Laudan, Larry (1981) "A Confutation of Convergent Realism", *Philosophy of Science*, 48: 19–48.
- Sober, Elliott (1988) *Reconstructing the Past: Parsimony, Evolution, and Inference*, Cambridge MA: MIT Press.
- Sterelny, Kim (2016) "Contingency and History." *Philosophy of Science* 83, no. 4 (2016): 521-539.
- Tucker, Aviezer (2004) *Our Knowledge of the Past: A Philosophy of Historiography*, Cambridge: Cambridge University Press.
- Tucker, Aviezer ed., (2009) *A Companion to the Philosophy of History and Historiography*. Malden MA: Wiley-Blackwell.
- Tucker, Aviezer (2016) "The Generation of Knowledge from Multiple Testimonies," *Social Epistemology*, Vol. 30, 251-272.
- Tucker, Aviezer (2019) "The Inferences of Common Causes Reduced to Common Origins," *Studies in History and Philosophy of Science Part A*, 2019.  
<https://doi.org/10.1016/j.shpsa.2019.09.001>
- Turner, Derek (2007) *Making Prehistory: Historical Science and the Scientific Realism Debate*, Cambridge: Cambridge University Press.
- Wray, Brad K. (2015) "Pessimistic Inductions: Four Varieties," *International Studies in the Philosophy of Science*, 29:1, 61-73.