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The Essential Tension. Historical Knowledge between Past and Present¹

Abstract

In this paper, I scrutinize knowledge as it presents itself in historiography. Historians find themselves in a peculiar position: they need to employ the tools available to them in their present to say true things about a past that might have been very different. I argue that our knowledge of the past is best understood through an informational account of knowledge and a coherentist account of justification. In this framework, knowledge claims about the past and anachronisms incur no special epistemic problems for historiography, and once the logic of historical (re-)description and evaluation is understood, historiography stands firm among the other historical sciences in terms of the feasibility of its goal of speaking the truth about the past.

¹ I would like to thank Tyson Retz, whose course on hermeneutics in Stavanger, Norway, in May 2019 was the immediate trigger for this paper. I also thank Jouni-Matti Kuukkanen, Adam Michael Bricker, David Černín, and Fu Lo for comments on a previous draft of this paper.

Historians aim to say true things about the past, this is a, if not the, most central aspect of their self-image.² At the same time, they necessarily occupy a position in their own present that characterizes their perspective on the past as hindsight. It is not clear at the outset whether this anchoring of the historian in her present and the hindsight it engenders more function like a smokescreen or like a mountaintop perspective that helps them to get the past into better view. The potentially skewing and misleading effects of hindsight have traditionally been discussed in historiography under such headers as anachronism or Whiggism,³ and a general skepticism about our capabilities to zoom in onto the past has in recent decades been formulated, in different ways, by narrativism and constructivism.⁴

Historians themselves seem to be divided on the issue too, at least when they theoretically reflect on their intellectual endeavors. Compare, for example, the following two pronouncements from *Marc Bloch* and *Tony Judt*, both widely acclaimed historians. In a famous passage, Bloch asserts, with quite some anxiety, that historians are in no position to observe their objects of interest: “The historian is, by definition, absolutely incapable of observing the facts which he examines. No Egyptologist has ever seen Ramses. No expert on the Napoleonic Wars has ever heard the sound of the cannon at Austerlitz. We can speak of earlier ages only through the accounts of eye-witnesses”⁵. In an everyday sense, Bloch is definitely right here; we cannot see, that is *perceive* with some immediacy, Ramses or the Battle of Austerlitz in the same sense that we might perceive that the cat is on the mat. However, it is not clear that this impossibility of immediate perception of

² N. Zemon Davis, *The Return of Martin Guerre* (Cambridge, MA and London: Harvard University Press, 1983), ix; A. Marwick, *The Nature of History* (London: MacMillan, 1993), 1-14; D. Little, *New Contributions to the Philosophy of History* (Amsterdam: Springer, 2010), 3.

³ N. Jardine, “The Uses and Abuses of History,” *History of Science* xxxviii (2000), 252-270; N. Jardine, “Whigs and Stories: Herbert Butterfield and the Historiography of Science” *History of Science* xli (2003), 125-140.

⁴ F. A. Ankersmit, *Narrative Logic: a semantic analysis of the historian’s language* (The Hague: Nijhoff, 1983); K. Pihlainen, *The Work of History: Constructivism and a Politics of the Past* (Abingdon: Routledge, 2017).

⁵ M. Bloch, *The Historian’s Craft. Reflections on the Nature and Uses of History and the Techniques and Methods of Those Who Write it* (New York: Vintage Books, 1953), 48.

the past that comes for Bloch with *historical distance* bears any epistemic significance at all when it comes to of our knowledge claims and their justification. (And I only mention in passing that Bloch's understanding of historiographic evidence as consisting only of eyewitness accounts seems rather outdated nowadays as well.)

The issue becomes even more complex when we add Judt to the picture. Right at the beginning of his *magnum opus*, *Postwar*, Judt claims that *proximity* to, not distance from, the historical periods of interest can pose a real hindrance to our knowledge of the past. He writes:

“No one, then, can aspire to write a fully comprehensive or definitive history of contemporary Europe. My own inadequacy to the task is aggravated by proximity: born not long after the war ended, I am a contemporary to most of the events described in this book and can remember learning about or watching—or even participating in—much of this history as it unfolded. Does this make it easier for me to understand the story of post-war Europe, or harder? I don't know. But I do know that it can sometimes render the dispassionate disengagement of the historian quite difficult to find.”⁶

While Judt stays agnostic about the question whether proximity to the events of interest in general is an epistemic asset or hindrance, he does argue that it can be distorting in at least one sense: *affective* involvement in past events can create forms of partiality and bias corrosive of an objective view on the past. Such an involvement normally adheres to events close to the historian's present or ones that are even lived through by them (though it is not necessarily limited to such events).⁷

⁶ T. Judt, *Postwar. A History of Europe Since 1945* (New York: The Penguin Press, 2005), xiii.

⁷ This seems uncontroversial as a historiographical heuristic but there might still be some misgivings about this position and its implied negative correlation between affective involvement and the objectivity of our knowledge claims. Standpoint epistemology has been arguing for a few decades now that certain standpoints, usually those of oppressed people and groups, can claim privilege and authority when it comes to understanding their own lot and oppression (S.

March Bloch would probably have agreed with Judt on the dangers of affective involvement of the historian in the past she wants to scrutinize. The issue here is not to fundamentally counterpose Bloch and Judt and create a potentially spurious difference. What can be gleaned from their statements, however, is that both temporal proximity and temporal distance seem to be able to affect our knowledge claims in negative ways- for Bloch distance and for Judt proximity exactly act as impediments for gaining knowledge about the past. At the same time, both historians also stand firm in their affirmation of what they see as the basic goal of historiography, speaking the truth about the past.⁸

Historians are firmly anchored in their present while they aim to say true things about a past that is gone and cannot be experienced in a perceptual fashion, or be brought back and reinstated in an experiment. It is this *existential presentism*, coupled with a certain understanding of the past that makes it seem irretrievable, which produces epistemological anxiety about our prospects to gain knowledge of the past and injects a certain *tension* into the perspective of hindsight. It also poses general questions about how to justify claims about the past.

My thesis in this paper is that “past-” and “presentness” in themselves are not the bugbear they are made out to be by Bloch and Judt, among others. If we jettison a certain empiricism for which immediate observability is the gold standard for knowledge and existential claims, then the mere “pastness” of the objects of interest of historiography poses no real problem, quite the contrary. I propose instead to adopt an *informational account of knowledge* and a *coherentist understanding of justification*, as developed by Fred Dretske and Laurence Bonjour in general epistemology and Peter Kosso and Aviezer Tucker in the context of

Harding, *The Science Question in Feminism* [Ithaca and London: Cornell University Press, 1986]). Affective investment in such relations of oppression is usually a given and often seen as one of most important sources in the drive for their abolition. The epistemological question, though, is whether this emotional investment actually is also conducive to a correct understanding of one’s oppression. I remain agnostic here and only note that many historians seem to think that such investment is a stumbling stone for a correct understanding of the past.

⁸ Judt, 5; Bloch, 11-14.

philosophy of historiography.⁹ Based on these philosophical theories, past and present in themselves lose their punch, and claims about either are justified in the same fashion.

These same theories also aid us in better differentiating different aspects of our knowledge claims and in seeing how they might be influenced by our existential presentism and anachronisms, to the positive or negative. I differentiate three broad kinds of anachronism that are being employed in historiography: *evidential*, *interpretative*, and *pragmatic* anachronisms. Presentism and anachronism are not as detrimental for producing knowledge about the past as has been argued by constructivists and others,¹⁰ and there is no way around them. Many of the problems faced by historiography due to its perspective of hindsight are problems shared throughout the (historical) sciences.¹¹ There is no reason to bemoan (or rejoice) that historiography is in some way defective when it comes to truth claims either because its objects are in the past or because it itself is in some way irrevocably anchored in its own present.

In what follows, I will first give short definitions of what I mean by existential presentism and its close corollary, anachronism. Thereafter, we will see how an informational and coherentist account does away

⁹ F. I. Dretske, *Knowledge and the Flow of Information* (Oxford: Basil Blackwell, 1981); F. I. Dretske, *Perception, Knowledge, and Belief. Selected Essays* (Cambridge: Cambridge University Press, 2000); L. BonJour, ““The Coherence Theory of Empirical Knowledge,” *Philosophical Studies* 30 (1976), 281-312; L. BonJour, *The Structure of Empirical Knowledge* (Cambridge, Mass: Harvard University Press, 1985); P. Kosso, *Knowing the Past. Philosophical Issues of History and Archeology* (Amherst: Humanity Books, 2001); P. Kosso, “Philosophy of Historiography” In *A Companion to the Philosophy of History and Historiography*, ed. A. Tucker (Chichester: Wiley-Blackwell, 2011), 9-25; A. Tucker, *Our Knowledge of the Past. A Philosophy of Historiography* (Cambridge: Cambridge University Press, 2004).

¹⁰ Pihlainen, 26.

¹¹ C. Cleland, “Methodological and Epistemic Differences between Historical Science and Experimental Science,” *Philosophy of Science* 69, no. 3 (2002), 474-496; P. Kosso, “Scientific Method and Hermeneutics,” *The Southern Journal of Philosophy* XXXIV (1996), 169-182.

with the rough-and-ready understanding of the intrinsically problematic nature of historiographic hindsight, before coming to a discussion of the uses and abuses of anachronism in historiography.

Existential Presentism and Anachronism

We can begin by defining presentism. As temporal beings, we necessarily occupy a position in our respective present. The past is for us bygone and over with and we look backwards onto it, as it were, in hindsight. *Existential presentism*, then, names the positioning of historians, or everyone for that matter, in their respective present that they *live* through and this process *conditions* their perspective on the past. It is quite natural to think that our present--defined as our relative worldline and the *durée* of our lives, not in any punctualist way--conditions our views, among them views of the past, since we all go through various processes of socialization. There is the general socialization we receive as children, and later on in life, we also perform countless adaptations when moving through different social settings, among them our socialization as professional historians if we decide to take up that profession.

Historians in this sense are not only socialized into their own times as everyone else is, they are also inducted into a discipline whose prime goal, in its own understanding, it is to speak the truth about the past.¹² Historians in this sense are in a particular position. Their professional aim is to speak the truth about the past by employing the means available to them in their present. It is not clear from the outset though that those means are always suitable for the job. This leads us to the eponymous "essential tension"¹³ of the title of this paper; we need employ our present knowledge and theories so as to say true things about a past that might be very much unlike the our present which puts a question mark over the applicability of those theories.

¹² Marwick, 1-28

¹³ T. S. Kuhn, *The Essential Tension. Selected Studies in Scientific Tradition and Change* (Chicago: University of Chicago Press, 1977).

Everybody is faced with this potential tension when aiming to talk truthfully about a significantly different past or present (a fundamentally alien culture, say). The difference between historians and laypeople is that laypeople might relate to the past in other ways than by truthful description,¹⁴ while speaking the truth about the past is the regulative ideal and disciplinary goal of historiography, which is inculcated into the students of the discipline from early on.¹⁵ Historical education teaches in this sense theoretical reflection and temporal *disembedding* and *debiasing*, enabling students to reflect critically on different modes of thinking and their preconditions, on the understandings and prejudices of their own times, and the potentially very different social settings of previous ages. Other discourses about the past not necessarily display this sort of reflexivity and they not necessarily systematically teach temporal disembedding and debiasing. The goals of such discourses might be (parochially) edifying or therapeutic instead, as in a lot of bogus nationalist discourse, or aiming at imparting a moral lesson.

Through the existential anchoring and socialization in their present, historians most likely will employ anachronisms of one kind or the other when speaking about the past. By anachronism I mean a (re-)description or analysis of the past or its remains that could not have been given at the time of interest in the past itself, for whatever reason. Prime among anachronistic (re-)descriptions in historiographical discussion are “interpretative anachronisms”¹⁶. Think about such theoretical categories as “the proletariat of Ancient

¹⁴ H. Paul, *Key Issues in Historical Theory* (New York and London: Routledge, 2015), 14; Tucker, 6.

¹⁵ Tucker, 46-92.

¹⁶ Jardine, *Uses and Abuses*, 253.

Rome”¹⁷, “Aristotle’s biology”¹⁸, or “Galilei’s inertial mass”¹⁹; none of which was available to the times they are applied to.

We can differentiate interpretative anachronisms of the sort just mentioned from evidentiary and pragmatic anachronisms. While interpretative anachronisms highlight aspects of past societies or past actors in ways they could not have themselves, evidentiary anachronisms employ anachronistic theories and methods to the evidence itself.²⁰ Pragmatic anachronism is an umbrella category for anachronisms fueled by the need of

¹⁷ P. Linebaugh & M. Rediker, “The Many-Headed Hydra: Reflections on History from Below” In *Beyond Marx*.

Theorizing the Global Labour Relations of the Twenty-First Century, ed. M. Van der Linden & K. H. Roth (Leiden: Brill, 2014), 21-40.

¹⁸ I. M. Copi & C. Cohen & K. MacMahon, *Introduction to Logic* (Harlow: Pearson Education Limited, 2014).

¹⁹ G. Prudovsky, “. “Can We Ascribe to Past Thinkers Concepts They had no Linguistic Means to Express?,” *History and Theory* 36, no. 3 (1997), 15-31.

²⁰ There might be borderline cases. We can imagine an “ideally historical” historian, as opposed to one being “presentist” in one way or another. Let her conceptual framework be identical with her objects’, no matter how long after her objects of interest she is living. Flouting her privilege of hindsight, she would stop being a historian and become an annalist or chronicler instead, that is, someone who writes down whatever happens without any recurrence to past or future and with not much ordering beyond simple temporal succession (H. White, *The Content of the Form. Narrative Discourse and Historical Representation* [Baltimore: The John Hopkins University Press, 1987], 1-25). She might, on the other, still make good use of hindsight by coming, under epistemically favorable conditions, to know what happened before and after a certain point of time she is interested in and that way remain a historian. This latter perspective exactly enables her to describe events and state of affairs in the past in ways that were not available to the historical actors at their point in time, even if they were in principle understandable to them. Only in this latter case does our historian assert her historical position and remain a historian proper who employs anachronism in at least one important respect (i.e. redescription of an earlier state of affairs in terms of their future outcomes). The principle logic of genuinely historical descriptions of this sort was first analyzed by Arthur Danto in his text “Narrative Sentences” (A. C. Danto, *Narration and Knowledge* [New York: Columbia University Press, 1985], 143-183) and his famous thought experiment of an Ideal Chronicler therein. Danto’s Ideal Chronicler is no historian despite of her God-like gift of “instantaneous transcription”

historians to communicate with a modern audience in their contemporary social setting. The former two potentially serve an epistemic function in producing knowledge about the past. Pragmatic anachronisms often lack this positive epistemic function though they might interact with our epistemic goals in various ways. This text mainly focuses on first two kinds of anachronism.

But first we are now going to turn to the epistemic assessment of historical truth claims, many of which are anachronistic in nature. The use of anachronism is varied in historiography and wider culture, with some of them being indispensable for the production of knowledge about the past and others potentially detrimental to this effort. The justification of those concepts, however, is of a general kind, meaning that knowledge-conducive anachronism are those that can be justified in terms of the general model of justification described here.

The Coherence Model of (Historical) Justification and Evidentiary Anachronisms

Let's recall Bloch's assertion that the historian is "absolutely incapable of observing the facts which he examines. No Egyptologist has ever seen Ramses."²¹ This way of putting the matter is a red herring because scientists in other fields often do not observe their objects, say a T-Rex or neutrinos, in any immediate way either. What is at stake here is the *information* potentially gained from interaction with the object of interest through the transmission of evidence and the *justification* of our knowledge claims based thereupon, not simple observation which is supposedly impossible for all matters past.

A central step around the obfuscating issue of "pastness" is to problematize the empiricist notion of immediate observation and observability as the touchstone for all knowledge and existential claims. Strictly

(Danto, 149) of whatever happens the way it happens exactly because she lacks the *epistemic advantages of hindsight and presentism* of our "ideally historical" historian who, contrary to the historical actors, at the very least knows how things turned out after a certain present.

²¹ Bloch, 48.

speaking, *all* observation is observation of the past. It is a fundamental matter of fact of the universe as we know it that nothing travels faster than the speed of light, which stands at approximately 300000 km/s. Any light must therefore travel to the human eye at that speed. Thus, everything we see is of the past if in daily observations only in a truly miniscule sense. Given the vast distances in the known universe, however, this does make a difference. It is the very reason why we can *now*, given appropriate apparatuses, observe astronomical objects as they appeared millions or even billions of years ago (or away), and it also the reason why the Battle of Hastings can now in principle be observed at a distance a little less than 1000 light years from Earth. Being in the past functions, in this sense, as a *precondition* for anything to be observed at all and is the exact opposite of being a hindrance to that endeavor.²²

Whereas, for all we know, the speed of light is constant and poses an upper limit for the propagation of an information signal, there seems to be no such lower limit that we know of. Material remains and historical texts for instance, as prototypically found in historiography and archeology, are different media of transmission from light but they also transmit information. As such, they are subject to the contamination and degradation of the information signal they relay, along with the degradation of the medium itself which normally increases with time, but there is no a-priori lower limit to the speed of information transmission with these media. It is possible at least in principle that a tablet of Sumerian cuneiform tablet, with the appropriate techniques and background knowledge, is read hundreds of thousands of years after it was written.

What I have been describing so far by way of example of light and Sumerian cuneiform tablets as two different media of transmission of information is the aforementioned informational account of knowledge. Information as a concept had steep career in the twentieth century, especially since the late 1940s when the concept really took off with Claude Shannon's mathematical theory of communication.²³ Information in these accounts that customarily became known as "information theory" is at its basest defined as the reduction or

²² Danto, 41; Kosso, *Philosophy of Historiography*, 42.

²³ J. Gleick, *The Information. A History. A Theory. A Flood* (New York: Pantheon Books, 2011), chap. 6 and 7.

resolution of uncertainty, with the *bit*, short for binary digit, being the unit of information and one *bit* being defined as the reduction of uncertainty by half. With information theory and the *bit*, the quantification, storage, and (compressed) telecommunication of information became issues of central concern and innovation, and with the rise of personal computers and then especially the Internet over the last several decades these issues vastly impacted the lives of most people too.²⁴ As a result, we have seen a thorough digitalization of large swaths of our interactions and lives and much talk about the dawning of a digital age and a thoroughgoing information society. With Big Data and digital humanities methodologies, the digital technologies based on information theory have even made it into the heart of historiography in the last decade.²⁵

On the heels of the advances in theoretical and then practical information science, philosophy of information and informational epistemology also began to developed, especially in the last 30 or so years and linked to the impulses received from ubiquitous digitalization. While the philosophy of information inquires into the conceptual nature and basic principles of information quite generally, including its uses in science and society, informational epistemology scrutinizes information's relation to knowledge.²⁶ In the latter's discourse, information is often defined as the capacity or disposition of an object to inform a suitably equipped receiver or agent, creating some information or learning effect in them. Fred Dretske, one of the prime proponents of an informational account in epistemology, argues for the "epistemic character of the concept of information"²⁷ by defining knowledge exactly as a belief caused or sustained by information from an object. Information itself is defined in the following way according to Dretske: "A message (i.e. some

²⁴ R. Capurro, "Past, Present, and Future of the Concept of Information," *Triple C: Communication, Capitalism & Critique* 7, no. 2 (2009), 125-141.

²⁵ C. Brennan, "Digital humanities, digital methods, digital history, and digital outputs: History writing and the digital revolution," *History Compass* 16, no. 10 (2018), 1-12.

²⁶ L. Floridi, *The Philosophy of Information* (Oxford: Oxford University Press, 2011).

²⁷ Dretske, *Perception, Flow*, 72.

event, stimulus, or signal) carries information about *X* to the extent to which one could learn (come to know) something about *X* from the message. (...) When I say that one *could* learn that *X* was a dingbat from the message I mean, simply, that the message has whatever reliable connection with dingbats is required to enable a suitably equipped but otherwise ignorant receiver to learn from it that *X* is a dingbat.”²⁸

What is crucial in this informational framework is not the “past-“ or “presentness” of our object of interest, or our direct contact with it, but the transmission of information signals from that object to a suitable receiver. To understand this transmission, we need to talk about different *media of transmission* and their *properties*, along with the *reliability* and *fidelity* of the information signal. We will discern each of these issues one at a time. One thing, however, is already clear: “Pastness” in itself loses its stature as an epistemic problem on this account, and with that, its threatening role for our knowledge claims.

Similarly, the present or immediate observability cannot be afforded any epistemic primacy either. With this, we can return to Bloch’s claim about the unobservability of the past, which rests on a foundationalist understanding of knowledge in which immediate perceptions serve as the foundations and touchstone of knowledge. Only observations of this sort license claims to knowledge and the existence of objects. This foundationalism creates the spurious difference between a knowable present because it can be observed

²⁸ Dretske, *Perception, Flow*, 71. Dretske is in general terms a reliabilist when it comes to the definition of knowledge (Dretske, *Perception, Flow*, 80-93). It is reliable processes that lead to knowledge for him; information acquired from an object through these processes just is knowledge (under usual circumstances). I have no particular stake in this discussion, especially in relation to coherentism as defended by figures such as Keith Lehrer (K. Lehrer, *Theory of Knowledge* [Boulder: Westview Press, 1990]), for whom knowledge comes very close to justification in an explicit sense. As will become clear from the rest of this section, I do subscribe to coherentism when it comes to the *justification* of explicitly *scientific* knowledge but I stay agnostic as to the actual definition of knowledge. I am happy, for the purposes of this paper at least, to accept that we might reasonably have knowledge of something if that knowledge has been acquired through a reliable process without justification being achieved by the same token. I thank Adam Michael Bricker for his patient discussions of these matters with me.

and an unobservable and therefore unknowable past. Beyond the fact that actually all observation is of the past as we have just established, there are two more fundamental problems with this foundationalism: i) the delineation of observability and ii) its epistemic significance.

It has been convincingly argued that there is a spectrum of observability which cannot be exactly delimited.²⁹ Observation through a window or with eyeglasses is usually considered unproblematic and epistemically licit in most foundationalist accounts. A simple microscope, however, is nothing more than a string of several lenses, an extension of eyeglasses if you will. No clear line can be drawn here between unimpeded observation that supposedly confers epistemic justification on the one hand and aided observation with various different apparatuses, ranging all the way down to something like electron microscopes and other imagining devices of the very small. Without the possibility of neat demarcation between primitive and aided observability, the former loses its epistemically privileged standing.

Further, observation in the sciences is an *accomplishment*; unschooled observation alone will be of no use at all in most relevant cases. Science is in many ways counterintuitive and seeing in the different sciences needs to be learned and trained.³⁰ In other words, for observation to count as an “epistemic act”³¹, background assumptions about the apparatuses used and about the objects of interest must be understood and in a sense ingrained in the researcher; only then can observation be epistemically valuable at all. In order to count as justified knowledge, the information transferred to a trained observer through different media and with

²⁹ G. Maxwell, ““The Ontological Status of Theoretical Entities” In *Minnesota Studies in Philosophy of Science Volume 3*, ed. H. Feigl and G. Maxwell (Minneapolis: University of Minnesota Press, 1962), 3-27; D. Shapere, “The Concept of Observation in Science and Philosophy,” *Philosophy of Science* 49, no. 4 (1982), 485-525.

³⁰ N. R. Hanson, *Patterns of Discovery. An Inquiry into the Conceptual Foundations of Science* [1958] (Cambridge et al.: Cambridge University Press, 1981), 4-30; R. Bhaskar, *A Realist Theory of Science* (London and New York: Routledge, 2008), 20-26.

³¹ P. Kosso, *Appearance and Reality. An Introduction to the Philosophy of Physics* (New York and Oxford: Oxford University Press, 1998), 20.

the help of different instruments needs to be tracked via background theories. This is the famous theory-ladenness of all observation and one-way transfer of information from the outside to the subject through observation is impossible. The key issue then is not simple observability, which cannot be defined unequivocally and which presupposes trained observers and with them theoretical mediation and background theories, but the transfer and reception of information, along with the theories, apparatuses and media needed in that process.

If there are no foundations for our knowledge, past or present, and we justify our observations by means of other beliefs and theories, then a different understanding of justification is needed. With no claim being foundational, justification is in principle never-ending since every justifying belief is itself in need of justification. The reasons for believing a claim stems from its overall fit into our “web of beliefs”³², with a further requirement of the relative independence of different claims about which we will talk about shortly.

Central in this informational account of knowledge then is to focus on the differing roles different claims play in the process of justification. Some of the claims will be knowledge claims about the objects themselves and others accounting claims vouching for the reliability or fidelity of the transfer of information. What we should aim for is coherence between our different knowledge and accounting claims and avoidance of vicious forms of circularity in this process. In historiography then, as in any other science, there cannot be any form of evidence that is as a foundational claim of last resort beyond any further need for justification; and while there was, and potentially still is, a certain preference in the discipline for eyewitness accounts, they are anything but incorrigible. Instead, justification is a matter of degree and proceeds on a case-by-case basis.

The interesting question then is not, what can we observe, but to what extent are the traces I deal with *of* the object of my interest. For traces to count as evidence, we need background theories and auxiliary assumptions that guarantee the contact with that object and the flow of information *from* it to the present, next to the ability to interpret the object correctly (which usually relies on a different set of background

³² W. V. Quine & J.S. Ullian, *The Web of Belief* (New York: Random House, 1970), 78.

theories and heuristics). Those theories need to establish that there has been a transfer of information from the object to the medium of transmission, and that the medium has transmitted the signal consistently up to the present. This, exactly, are the issues of the *reliability* and *fidelity* of the evidence. To establish reliability and fidelity, we need at least *two kinds* of claims: i) claims explicating the “interactive properties”³³ of the media of transmission along with the actual transmission history (fidelity), which are often accompanied by theories and methods of clearing up the information signal which might be distorted, decayed, or overlain by noise; and ii) claims about the initial formation process of the evidence and the exchange of the information from the object of interest to the evidence at hand (reliability). In general, there is no need for any of those theories to have been available at the time of the creation of the information signal, though some of them might have been. This assessment is entirely done in the present of the historian and it will in all likelihood employ anachronisms in one way or another.

Coming back to our discussion of different media of information transmission, texts and material remains are central forms of evidence in historiography and archeology. As with other media, we have to establish the reliability and fidelity of textual evidence via background theories and accounting claims. The matter of reliability is often couched in terms of the *authenticity* of textual evidence. Authenticity can be established via background knowledge about the author and her temporal positioning (witnessing of events, honesty of the author, assessment of peers etc.), and the fidelity of the text depends on its history of preservation and transmission.³⁴ Think of the many works of Aristotle that came to us only through Arab transmission. Arab scholars translated and commented on many books of Aristotle in the 12th and 13th centuries while there were only two of his books in circulation Latinate Western Europe. Many of those translations found their way back into Western Europe in the following centuries via further translations into Latin of the Arab

³³ Kosso, *Knowing the Past*, 46.

³⁴ Kosso, *Philosophy of Historiography*, 16.

translations and they helped spur philosophical discussions in the late Middle Ages.³⁵ The question here is are the Greek source texts for the Arab translations authentic texts of Aristotle, originals or faithful copies, and has the whole translation information chain has been faithful to the meaning of the original texts through the different stages of transmission in all involved languages (Ancient Greek, Arab, Latin, further translations into European vernaculars at a later point). When it comes to the assessment of the authenticity of a text, some claims needed to establish it will have been present at the times of the actors in question, say assessments of Aristotle and the proliferation of his text by other Ancient Greek writers, whereas others such as chemical tests of manuscripts or stylistic analyses were not.

Textual evidence is, other than the forms of evidence we have come upon so far, *intentional* in nature but this in itself does not necessarily diminish its usefulness. While there is indeed the possibility of willful ideological alterations and faking, which need to be addressed whenever they come up through accounts of the authenticity and transmission of the informational signal, there is with texts also the possibility of *focusing* or *zooming in* on a particular aspect of interest absent from unintentional evidence.³⁶

³⁵ M. Perry & M. Chase & J.R. Jacob & M. C. Jacob & T. H. Von Laue & G. W. Bock, *Western Civilization: Ideas, Politics, and Society* (Boston and New York: Houghton Mifflin Harcourt Publishing Company, 2008), 261.

³⁶ Marx famously wrote in the preface of volume I of *Capital* that “[i]n the analysis of economic forms, moreover, neither microscopes nor chemical reagents are of use. The force of abstraction must replace both.” (K. Marx, *Capital Volume I. The Process of Production of Capital* [1867] [Moscow: Progress Publishers, 1977], 6). Abstraction can indeed in some sciences play a role similar to that of a microscope. Both *enhance* our understanding of some aspect of an object at the expense of others in ways that would otherwise be impossible. The indirectness of the observation either accomplished by instrument or by the power of thought becomes an epistemic asset in these cases. The same can in principle be said of historical actors and their texts, which often intentionally abstract and provide insights into certain aspects of the past at the expense of others. Assessment of these abstractions needs to proceed on a case-by-case basis via accounting theories.

The same criteria of assessment are also applied to material evidence, which in most cases is unintentional in nature. In practice, this means we can for instance read the inventory lists compiled by Sumerian scribes about 5000 years ago about goods stored in and around the palace, as we can, under epistemically felicitous circumstances, compare them to the potshards of the vessels that contained the goods mentioned in those lists. In a contrived argument about the character of the Sumerian palace economy, both count as independent evidence for the stocking and right of use of certain goods as well as potentially about the trade networks that this economy already partook in. This all is (nested) information the Sumerian scribes presumably did not intend to convey and much of it can only be lifted from the meager evidential record via modern theories and methods, many of which are anachronistic.

The form of justification we can aspire to in historiography is internal to our web of beliefs and based on the selective set of evidence that has come down to us via the uneven and mostly unregulated historical process. Justification in this environment is accomplished by the relative *independence* between the different claims, as in our example of the Sumerian goods where we had independent textual and material evidence (by stipulation). While theories must be justified via other theories without a potential point of termination, the independence criterion makes sure that a theory cannot account for, or even furnish, its own evidence or vice versa. Kosso puts the issue very concisely: “The quality of the account is measured in large part by the independence of the accounting claims from the claims for which the observation is used as evidence”.³⁷ This is a form of *epistemic independence*, and it prevents theories from providing their own justification in a circular fashion.³⁸ In our argument about the functioning of the Sumerian palace economy, both the theories

³⁷ Kosso, *Knowing the Past*, 46-7.

³⁸ This is Kosso’s formal definition of epistemic independence: “One claim *x* is independent of another *y* in this epistemic sense just in case *y* does not entail any of the justification claims used to support *x*. Thus, if *y* does not contribute to the credibility of *x*, *x* can be used as independent evidence for *y* without incurring the problematic circularity of *x* supporting *y* while *y* supports *x*. When there is epistemic independence, *x* must be supported by separate means. (Kosso, *Knowing the Past*, 84, original emphasis)

to understand the cuneiform tablets (understanding of the grammar of Sumerian; of the writing system of cuneiform etc.) as the theories needed to scrutinize the potshards (dating techniques; chemical determination of its former contents; aesthetic form and patterns that relate it to a certain period) are independent of the claims of the functioning of the palace economy. This amounts to “coherence without collusion”³⁹.

Beyond the “gold standard” of epistemic independence, other epistemic values play a role in the justification of our beliefs about the present or past too. One is the openness of our web of beliefs to the “onslaught” of future evidence.⁴⁰ A theory that can withstand, or even assimilate, more evidence as it is discovered in the process of science is more credible and potentially more likely to be true because its coherence is *dynamic* in a system of ever-expanding evidentiary relations. Bonjour calls this the “observation requirement” of coherentist theories.⁴¹ In the same vein, our web of belief should be *free of contradiction* and bear *explanatory relevance* among the different claims. Both increase the “fine-meshedness” of our web at the expense of coarsely meshed parts or holes (contradictions), that is its overall coherence, under the general constraint of epistemic independence.

³⁹ Kosso, *Knowing the Past*, 79.

⁴⁰ P. Thagard, “Coherence, Truth, and the Development of Scientific Knowledge,” *Philosophy of Science* 74 (2007), 28-47.

⁴¹ Bonjour, *Structure*, 141. This train of thought leads to what Bonjour calls the “metajustification” (Bonjour *Structure*, 9) of coherentism, that is, its supposed conduciveness to truth. In short, does dynamic coherence under the condition of independence indicate the truth of our knowledge claims, with truth being defined in the most common fashion as correspondence? Bonjour’s answer is in the positive and relies on inference to the best explanation. The truth of our beliefs best explains sustained dynamic coherence under the independence clause while the continuous “onslaught” of new data and evidence is a real challenge to the actual maintenance of this coherence. See also Bonjour, *Coherence Theory*.

Dynamic coherence under independence offers us both, a defense against the criticisms that coherentism eschews empirical justification and a prudent way of dealing the vexed issue of the underdetermination of theory by evidence. While there is an obvious circularity in a belief being justified by another belief, the independence criterion prevents any kind of vicious circularity. The dynamic observation requirement along with the other epistemic values outlined also buttresses the case against insular forms of coherence as found in dogmatic belief systems or historical novels for that matter. Likewise, while there it is logically always possible to come up with other theories that fit the evidence equally well, the forward-defense demanded from our coherent web of beliefs and the standard of epistemic independence take the bite from any claim of underdetermination as well.

Some such coherentism also describes the general structure of understanding and interpretation which can be called hermeneutic.⁴² Central to hermeneutics in its various guises is the so-called hermeneutic circle. Historically, it described the circular method of reasoning employed to understand texts (primarily the Bible) where our understanding of the whole is applied to understand parts, and the understanding of parts feeds back into the understanding of the whole. As a simple example, think of deciphering a letter a friend with horrible handwriting has sent you. Usually, in the process of coming to understand the contents of the letter, words you are able to decipher are brought to bear to understand whole sentences and paragraphs in a cumulative process, as your understanding of bigger entities such as sentences and paragraphs is employed to understand individual words and phrases that you have not got yet.

This process generalizes beyond the deciphering and understanding of text and language; in fact, it is perfectly general. In all sciences, from historiography to physics, observations are influenced by theories and theories by the information gained from observations; at least if we think any one-directional

⁴² P. Kosso, *Scientific Method*; H.-H. Gander, "Gadamer: the universality of Hermeneutics" In *The Routledge Companion to Hermeneutics*, ed. J. Malpas & H.-H. Gander (Abingdon: Routledge, 2014), 137-149; A. Velasco Gomez, "Method and Rationality" In *The Routledge Companion to Hermeneutics*, ed. J. Malpas & H.-H. Gander (Abingdon: Routledge, 2014), 251-269.

foundationalism based on observation is no option. We bring our theoretical understanding to bear on an observation and this observation might as well feed back into our theories, sometimes even changing them when deemed necessary. There cannot be any meaningful *understanding* of new evidence or theories without this itinerant circling between the different elements and relevant claims of our web of beliefs.⁴³

At this point, we can come to an understanding and assessment of the subjective and objective elements of historiography. There is always some imposition of knowledge in order to gain more knowledge; this signifies the “essential tension” we have been discussing. An objective or factual *statement* is then such that the source of information is the object itself (Kosso 2001: 94).⁴⁴ Objective *knowledge* is knowledge stemming from the object of interest, justified in the way described here. Objective methods give us reliable information about actual objects of interest.

Accounting claims, prime among them claims about the transfer and transmission of the informational contents, are part and parcel of this justification and in the epistemic acts in question they count as subjective

⁴³ While the structure of knowledge, understanding, and justification are identical in the different sciences in the way I just indicated, there is a difference in the logic and direction of explanation between experimental and historical sciences. Experimental sciences are, in a sense, sciences of the present since they can re-present their objects of interest in ways unavailable to the historical sciences from historiography, paleontology, evolutionary biology to cosmology (R. C. Lewontin “Facts and the Factitious in the Natural Sciences” In *Questions of Evidence: Proof, Practice and Persuasion Across the Discipline*, ed. J. Chandler & A.I. Davidson & H. Haerotunian [Chicago: University of Chicago Press, 1994], 478-491). Historical sciences have to trace back common causes from the evidence and thereby exclude alternative explanations, whereas experimental sciences have to infer effects from assumed causes in the experimental setting. The main issue for them is to rule out false positives and false negatives (Cleland, *Methodological and Epistemic Differences*, 484). I have outlined this difference in more detail in G. Gangl, “Narrative Explanations. The Case for Causality” *Journal of the Philosophy of History* (forthcoming). See also A. Tucker (“Historical Science, Over- and Underdetermined: A Study of Darwin’s Inference of Origins,” *British Journal of Philosophy of Science* 62 (2011), 805-829) very instructively on this crucial difference.

⁴⁴ Kosso, *Knowing the Past*, 94.

claims since in *this act* they are impositions from our part that are used to gain information about some object. Such subjective claims include the personal and theoretical impositions used to justify object claims and they are themselves in need of justification. When properly justified, they are as knowledge claims *not* subjective in the run-off-the-mill sense of being inscrutable personal impositions.

In any process of justification, there will always be subjective and objective elements in the sense defined here involved, and these components can, in principle, come into conflict with one another. The objectivity of our claims, when established, does not amount to a “view from nowhere” but to a perspective that understands the different inputs that compose a point of view, with some of them stemming from the objects of interest and most of them, subjective or objective, justified to a sufficient degree.⁴⁵

⁴⁵ This solution to the problem of subjectivity and objectivity seems to me generalizable to the whole issue of relativism, of which coherentism, properly conceived, is a variety. As James McAllister has persuasively argued, the most prudent definition of a relativist statement is of the sort “Entity E has property P relative to S” whereas S can stand for “cultures, world views, conceptual schemes, practices, disciplines, paradigms, styles, standpoints, or goals” (J. W. McAllister “Relativism” In *A Companion to the Philosophy of Science*, ed. W. H. Newton-Smith [Oxford: Blackwell Publishers, 2000], 405). This formulation is obviously true of coherentism, which holds that our knowledge claims are relative to other claims and our web of beliefs in general. At the same time, the issues usually associated with relativism dissipate before the differentiations made by an informational theory and the requirement of independence of evidence.

These also enable us to fend off stronger versions of relativism, that is, epistemic and metaphysical relativisms. Epistemic relativism about the past claims that all we can say about it is determined by our present and metaphysical relativism holds that our utterances in the present create the events in the past (for this differentiation see Kosso, *Philosophy of Historiography*, 21-2). Both positions have some following in the philosophy of history, especially in postmodernist and narrativist quarters, but seem over the top and unmotivated when compared with the epistemology advocated in this text. See for instance the following statement of Kalle Pihlainen: “Meaning is not something that can be discovered. And nor is it —and this follows—something that can be independent of construction” (Pihlainen, 2). And further: “A presentism explicitly oriented toward consequences is in itself enough of a challenge for many historians simply because it necessitates abandoning those last illusions of history as somehow ‘objective’” (Pihlainen, 25). The

I suggest that this understanding of the subjective-objective nexus improves on the one recently advanced by Jouni-Matti Kuukkanen in the context of the philosophy of historiography (Kuukkanen 2015: 168-179). Kuukkanen untangles different notions of objectivity in a useful manner by claiming that “historiography possesses both ontological and justificatory senses of objectivity”⁴⁶, and he argues that there is a “sliding scale of objectivity and subjectivity”⁴⁷ in historical accounts.

Kuukkanen’s two notions of objectivity come close to what I have explicated as information from the object (ontological objectivity) and accounting claims for that objectivity (justificatory objectivity).⁴⁸ Where Kuukkanen goes awry is to compare objectivity and subjectivity to a sliding scale where more of the one necessarily leads to less of the other. He links objectivity to “givenness” and self-evident categories “devoid of the subjective choices of the historian”⁴⁹. Only because of this notion of givenness, can he then assert that there is an “inverse relationship between object-sidedness and the originality” in historical works and that “[t]he more the historian is willing to state about the past, the less objective but more original”⁵⁰ her account will be. A reasonable beginning leads Kuukkanen to an absurd conclusion: the more objective a historian tries

dichotomy between construction and meaning is spurious and so is the one between objectivity and presentism. We exactly need our “constructions”, forged in our present, to uncover new knowledge about objects of the past and to justify that knowledge. The analysis offered here for objectivity and relativism could also be extended to the notion of constructivism itself that suffers from similar defects as applied in the philosophy of history.

⁴⁶ J.-M. Kuukkanen, *Postnarrativist Philosophy of Historiography* (Basingstoke: Palgrave Macmillan, 2015), 172.

⁴⁷ Kuukkanen, 172.

⁴⁸ However, Kuukkanen identifies justificatory objectivity with intersubjectivity while I have talked of justification in epistemic terms as dynamic coherence with independence. My notion of justification banks on epistemic instead of social criteria and is therefore in itself not as vulnerable to social forces as commonly understood intersubjectivity is. Intersubjectivity without further modification is susceptible to groupthink, uniform education and power relations.

⁴⁹ Kuukkanen, 174.

⁵⁰ Kuukkanen, 177-8.

to be (“willing to state about the past”) the less objective she will be (but she will become more original by that).

Kuukkanen juxtaposes subjective and objective in nonsensical ways. No piece of knowledge is just given, and all claims, subjective or objective, are in need of justification. The way I defined objectivity and subjectivity as inputs coming from the objects or the subjects in any epistemic act has the advantage that they can be scrutinized more precisely in their intertwining. We exactly need subjective theories to justify the accounts of the objects of our interest. In this sense, originality can be thought of as a feature of *both* subjective and objective claims, because as much imagination and innovation might go into the establishing and justification of an objective claim as a subjective one.⁵¹

The coherentist account of justification based on an informational theory of knowledge presented here establishes a less contradictory understanding of the subjective and objective inputs to our knowledge while recognizing that they can come in conflict with each other. It also renders the issues of “pastness” and “presentness” per se nugatory. In the sense discussed, all observation is of the past and the real issues at stake are the establishment of the *reliability* and *fidelity* of the information signal and the *epistemic independence* of different claims about some issue of the past. These are only indirectly linked to the questions of temporal distance and proximity that have vexed both Bloch and Judt. At the same time, there is no denying that historians, as everyone else, are rooted in their own present and conditioned by that present in manifold and sometimes surreptitious ways--this is the existential presentism we talked about in the last section, thrusting hindsight and anachronism upon us.

⁵¹ I only mention in passing that Kuukkanen does not define originality anywhere throughout his book. In the section on epistemic values, where originality is introduced, he writes: “Everything else being equal, a more innovative and original account should be preferred to a more customary one” (Kuukkanen, 128), which is no definition of originality at all. Later on, in the part on objectivity and subjectivity discussed here, he hitches originality to subjectivity, again without specifying what he means by the term.

This hindsight and presentism are in many cases an epistemic *asset*, contrary to a lot of common-sense belief and the empiricism that historians inherited from long-gone philosophical discussions. In all sciences, this positioning engenders the possibility of applying modern theories, methods and instruments on evidence. In the process of justification in the historical sciences, where the objects of interest cannot be re-presented in any experimental fashion, these *evidentiary anachronisms* are applied to the traces of the past in order to extract previously unavailable or even unknown information from them.

Evidentiary anachronisms have garnered less discussion and controversy in historiography and beyond but they are an important part of practice and progress of any science. There is always the possibility for new forms of assessment of the existing evidence to emerge.⁵² A recent example of a new and very powerful method of examining the given historical evidence, which has become available over the last decade only, is the genetic analysis of prehistoric human remains--known as "paleogenomics".⁵³ Genetic material retrieved from the skeletons of prehistoric humans, which have been uncovered over the last centuries by historical and archeological research, is being used in prehistory and prehistoric archeology to answer questions about the origin and kinship of early groups of humans, and that might help in understanding the spread of culture and modern humans in general. Such "cross-fertilizations" from other disciplines, or spillovers from the newest technological advances, can in principle never be ruled out in historiography or any other science, and they can come just as much from the social sciences or philosophy, not just the natural sciences.⁵⁴ These new ways of looking at evidence or of creating new evidence out of known material are epistemically very productive and they build *anachronistically* on theories or technologies that were not, and often could not have been, present in the past the evidence lays claims to.

⁵² Jardine, *Whigs and Stories*, 134.

⁵³ G. Lewis-Kraus, "Is Ancient DNA Research Revealing New Truths — or Falling Into Old Traps?" *The New York Times Magazine* (20.01.2019), <https://www.nytimes.com/2019/01/17/magazine/ancient-dna-paleogenomics.html> (23.09.2019).

⁵⁴ M. E. Smith, "Social science and archeological enquiry," *Antiquity* 91 (2017), 520-528; Little, *New Contributions*.

In historiography, there is the added issue that the objects of our interest are themselves “descriptive beings” describing their own present and often also their pasts. It is especially here that historians apply *interpretative anachronisms*, i.e. (re-)description of behavior of past actors and of their societies that they could not have given or accepted themselves. This adds another layer to the “essential tension”. While there are some misgivings about such anachronisms in philosophy as well as historiography,⁵⁵ they are as normal a part of historiography as the evidentiary anachronisms we just discussed are. And properly applied, they are conducive to our knowledge of the past.

Interpretative and Pragmatic Anachronisms

While all anachronisms--evidentiary, interpretative, pragmatic--are occasioned by our existential presentism and the perspective of hindsight forced upon us, interpretative anachronisms are the ones that come up most often in historiographic discussion and that occupy the minds of historians and philosophers alike. They are in fact epistemically crucial for any genuinely historical account of the past, as opposed to mere chronicles and annals that could have been written by the historical actors themselves in their present.

The central purpose of an interpretative anachronism is to give “theoretical redescrptions of events”⁵⁶ or states of affairs in terms of some later-day (or earlier) criteria that are not available to the historical actors at their times. There are two kinds of conceptual tools with which historians furnish these redescrptions: *causal narratives* and *conceptual colligations*.⁵⁷ Even if the conceptual system of a historian were identical to that of her historical subjects, as we have postulated in the thought experiment above, she would still, under suitable conditions, hold the advantage of knowing how things did turn out, as she might also bring later-day

⁵⁵ F. Braudel, *Afterthoughts on Material Civilization and Capitalism* (Baltimore: John Hopkins University Press, 1979);

Pihlainen, 25.

⁵⁶ Danto, xii.

⁵⁷ Gangl, *Narrative Explanations*.

interests that are alien to it to bear on the past. Yet, identity of conceptual system is no requirement here. Causal narratives and colligations are anachronistic in any case because they redescribe the past by way of causal outcomes or later-day interests that could not have been known by the historical actors. Many of them will even use descriptions that have been *principally* unavailable to the historical actors. In other words, many anachronisms of the causal and colligatory sort are not just occasioned by hindsight but also, and more importantly, by later understandings of a theoretical or practical kind principally unavailable to the historical actors.

Take the “narrative sentence”⁵⁸ “Stalingrad was the decisive turning point of WW II” which could only have been uttered after the Battle of Stalingrad, but most fully, only after WW II had ended. Narrative sentences like this one imply and help to demarcate causal networks, many of which are much longer and more complex than the example just given. Historians often track causal pathways that span over centuries; think for example of the histories of capitalism written by so many different historians, which in their usual configuration cover several hundred years.⁵⁹ Such causal narratives are among the main cognitive contributions of historiography to our stock of knowledge and they offer us genuinely *historical* knowledge of the unfolding and development of the past occasioned by hindsight and interpretative anachronism. They are in this sense epistemically central to historiography and very *beneficial*, offering us knowledge of historical processes exactly *in virtue of* being “futurist” from the perspective of the historical period in question. In this sense, hindsight can indeed be seen as something like a mountaintop that enables us to see farther than any of the historical actors in their plane of existence could have.

Colligations, on the other hand, are based on the interests of later-day historians and do not track any causal network. Danto’s famous example here is “Aristarchus anticipated in 270 B.C. the theory which Copernicus

⁵⁸ Danto, 149.

⁵⁹ Braudel, *Afterthoughts*.

published in A.D. 1543.”⁶⁰ Even if we accept that there was no transmission of information from Aristarchus’ astronomy to Copernicus, meaning we cannot establish a causal narrative, we might still include Aristarchus’ theory of the heavens into a putative “History of Astronomy”. This history will in all likelihood run through the usual suspects from Copernicus, Galilei, Kepler and Newton to figures that are more modern and Aristarchus’ account will have been included just by virtue of our *modern-day interest* in heliocentric astronomy. Exactly this interest in modern heliocentric astronomy occasions that inclusion of Aristarchus, whose model was indeed heliocentric but did not bear much of a resemblance to modern heliocentric astronomies, as they developed especially from Kepler on.⁶¹ The same choosing process and redescriptions might be present in, say, various histories of democracy which choose to include putative historical examples of democratic governance into their accounts based on the interests and values invested in democracy by contemporary historians and audiences.

Assessing the epistemic valence of colligatory anachronisms is more complicated than that of causal narratives. While their sources--modern sensibilities broadly defined--can often be conducive to gaining a different perspective on the past that can help to reveal issues heretofore overlooked, colligations themselves such as “Aristarchus’s anticipation” or our assumed history of democracy seem epistemically inert to me, at least in the sense of objective knowledge of the past as defined above. Some colligations, though, might even be epistemically harmful by imposing modern, ill-fitting categories onto the past that make it look like having features that it had not had (the opposite of the case above where modern sensibilities lead to the discovery of new aspects of the past). Where colligations are epistemically harmful, however, they will often also assert spurious causal connections as lots of nationalist and nation-building histories do that harken back to some alleged founding moment of their nation or ethnicity.

⁶⁰ Danto, 156. On the notion of colligatory concepts, see also Kuukkanen, 97-115; and W. H. Walsh “Colligatory Concepts in History” In *The Philosophy of History*, ed. P. Gardiner (Oxford: Oxford University Press, 1974), 127-144.

⁶¹ F. Cohen, *How Modern Science Came into the World: Four Civilizations, One 17th-century Breakthrough* (Amsterdam: Amsterdam University Press, 2010).

The bottom line here is, for any concept to be meaningful in any given society there must be criteria in place that govern its applicability. Many of these concepts might be historically specific to a certain time and place and dependent upon institutional preconditions that can also change over time.⁶² This requirement does not entail, however, that these criteria must have been known, or even be knowable in principle, to the historical actors who, or whose societies, are so described. As we have seen with colligations and causal narratives, some of them might indeed be unknowable to the historical actors and be of epistemic import exactly because of this.

In this process of application of interpretative anachronisms, there is always the real possibility that societies of the past might be misdescribed by our descriptions, especially when they significantly differ from what we are accustomed to or the evidence is scant or in one way or another lopsided. Such anachronisms then impose their own ill-fitting criteria on past societies, wittingly or not. There is no solution *tout court* to this issue--we are again faced with the "essential tension" between past and present and also between what we already know and what we want to find out, and case-by-case assessment is the best we can hope for here.

An issue with interpretative anachronisms that is often thought of as especially contentious is the later redescription of the actions and thoughts of historical actors in ways they themselves would not or could not have described them. As Quentin Skinner puts this issue in his very influential account, the point is whether or not it is legitimate to understand a historical agent "to be doing something which he would not - or even could not himself have accepted as an account of what *he* was doing".⁶³ This sort of intentionalism about descriptions can be rejected based on the insights gained so far about the logic of anachronistic redescription as too narrow a formulation. It is obviously legitimate in historiography to describe the behavior of a past agent in ways that she would not have accepted since this refusal of acceptance can stem from reasons irrelevant to the criteria of applicability of the description (thieves normally do not like to be told that they are thieving). More importantly, there are plenty of redescriptions of the behavior of historical agents in

⁶² Jardine, *Uses and Abuses*, 254.

⁶³ Q. Skinner, "Meaning and Understanding in the History of Ideas," *History and Theory* 8, no. 1 (1969), 6.

terms of *unintended consequences* of their action which violate Skinner's criterion but obviously make sense and abound in historiography as parts of causal narratives ("for want of a nail, the kingdom was lost").⁶⁴

Further, beyond unintended consequences, there are also ascriptions of reasons, motivations and concepts to actors that they could not have held but which seems equally legitimate. Leaving ascriptions of hidden motivations in the style of psychoanalysis aside, we might still ascribe a concept to a historical actors that they did not know to have had, or could not have known to have had. Prudovsky expresses this very clearly in a text arguing that it is legitimate to ascribe the concept of "inertial mass" to Galileo, even though neither he nor any of his contemporaries had the means to express it:

"Such an ascription is called for when the conceptual work which is presented in a given text is not itself complete, when the inferences presented there are strikingly insufficient for the conclusions which they are meant to support. In effect, one 'has' a concept when others are justified in ascribing it to one as a way of interpreting one's inferences, and when one engages in such inference-making in a way that is licensed only by such a concept."⁶⁵

If anachronisms violate these general conditions of applicability then they should be avoided. "Utterability" by historical actors, in any case, is not one of those conditions, far from it. It actually bears no special

⁶⁴ C. Lloyd, *The Structures of History* (Oxford: Blackwell, 1993).

⁶⁵ Prudovsky, 29; see also A. Koyré, *Galileo Studies* (Hassocks: The Harvester Press, 1978). This process of ascription is structurally very similar to the one found in historical linguistics where (forms of) words that are not attested in the textual record are inferred on the basis of derived or other words. It even extends to the inference of ancestral forms of attested words far back in time. A big chunk of early *Indogermanistik* has been devoted to the inference of such reconstructed ancestral forms spoken somewhere between 6000 and 4000 years ago and leaving no textual traces whatsoever. For a similar approach on the ascription of concepts to agents for which they have no means to express in political and ideological contexts, see L. Althusser, *Philosophy and the Spontaneous Philosophy of the Scientists* (London: Verso, 2012).

significance for historians as long as they understand the *logic* of historical descriptions, many of them anachronisms, and their proper *justification* as knowledge claims in their own present.

Theories such as Whiggism obviously violate that logic. Whiggish historiography is usually defined as being hagiographic, internalist, triumphalist, and (morally) judgmental.⁶⁶ Those characteristics of Whiggism are fueled by specific unwarranted interpretative anachronisms and theories that violate conditions of applicability and therefore prove to be epistemically damaging to the goal of gaining objective knowledge of the past. While not confined to it, Whiggism has historically especially flourished in the historiography of science.⁶⁷ One characteristic of Whiggish historiography of science is that the notion of science itself has been unduly extended backwards and seen as something like a self-contained system geared towards the truth. Yet, arguably, to be able to speak of science and scientists in a modern sense (scientist is a coinage of the nineteenth century only), some very specific intellectual and institutional settings need to be in place. Whiggism's triumphalism and hagiographic tendencies stem from a recklessly presentist reading of the history of science based on a simple notion of progress and a teleology toward the present state, along with a flawed understanding of scientific discovery and personae. Whiggism in this sense is based on epistemically unwarranted and even vicious anachronisms.

Lastly, we can come to the wide category of *pragmatic anachronisms* that are occasioned by the historian's need and desire to communicate in a modern idiom to her peers and her prospective audience in general. The language historians use always already "presentivize" her subject of study to a significant degree. Sumerian history is usually written in modern English (or Hokkien or Urdu for that matter) but not in Sumerian. With much historiographical evidence being textual and the accounts of historians being in words too, words of another language often, there can be subtle influences here and potential trade-offs. As before,

⁶⁶ H. Butterfield, *The Whig Interpretation of History* [1931] (London: G. Bell and Sons, 1968).

⁶⁷ Jardine, *Whigs and Stories*.

we encounter an “essential tension” here that cannot be solved in principle but must be dealt with on a case-by-case basis.⁶⁸

Claims of categorical untranslatability, however, are as uncalled for as the pipe dreams of immediate access to the past. That translation in general is a working principle can be seen with living languages. The history of historiography is also full of examples of successful deciphering of ancient languages, sometimes written in initially unintelligible scripts too, through the hermeneutic process described. Moreover, such translations took place in history all the time too, all the way back to ancient history, just think of the Rosetta Stone, which was key in deciphering Egyptian hieroglyphs.

Historiography may also be put to other uses than revealing the truth about the past (though this remains the regulative ideal of the discipline). Its task might be thought of as providing entertainment or as following mainly didactic or even edifying purposes. These uses of historiography especially tailored to the needs of assumed audiences are *incidental* to scientific historiography but can impose their own simplifications and anachronisms on our accounts of the past. Many of them might not be entirely justified from an epistemic point of view but defensible from a different vantage point (I am specifically thinking of didactic histories here). The account of justification and logic of historical descriptions discerned here hands us, in any case, the tools for assessing such alterations and accommodations along with their use of anachronisms epistemologically, and with that, their potential encroachment on the objectivity of historical accounts can be weighed against these other purposes historiography is put to.⁶⁹

⁶⁸ This thought might be the starting point for different forms of *linguistic* relativism that claim that everything we can say (about the past?) is determined by our modern language (the Sapir-Whorf hypothesis comes to mind as well as more radical interpretations of the late Wittgenstein and some offshoots of anthropology). These linguistic relativisms are a subspecies of the epistemic relativism we have already dealt with in footnote 9. The argumentation given there applies here too.

⁶⁹ The same goes for explicitly revisionist and denialist accounts of historiography whose aim it is to falsify history for whatever purpose, and for accounts of groups whose primary goal is furthering their own economic or ideological

Conclusion

Historiography faces its own fair share of epistemic obstacles, many of them to do with the select and lopsided character of the historical record and the intertwined issues of interpretation and explanation in which knowledge available in the present and often conditioned by that present has to be used to gain knowledge about the past. This process is complex and exhibits a tension that cannot be undone. “Pastness” and anachronism *per se*, however, are not part of the problem, quite to the contrary. As I have tried to show in this text, the negative assessment of, and the anxieties that often accompany, knowledge claims about the past are unfounded and the evidentiary and descriptive anachronisms employed in historiography can be conducive to establishing genuinely historical knowledge of the past.

As for the justification of its knowledge claims, historiography is at no disadvantage here either, at least compared to other historical sciences. With knowledge being understood as information, knowledge claims about the past are justified just like other scientific knowledge claims through accounting claims and the coherence of our beliefs under the requirement of (dynamic) independence. This coherentist and hermeneutic model of justification and understanding is perfectly general and underwrites scientific knowledge claims no matter if they are about the past or the present, or if they are about matters in the social or natural sciences. Historiography’s lot in these matters is, again, not significantly different, or worse, than that of other historical sciences, many of which are customarily counted as natural sciences. Any

interests, come what may. The latter are the “merchants of doubt” so skillfully described by Naomi Oreskes and Erik M. Conway (N. Oreskes & E. M. Conway, *Merchants of Doubt. How a handful of scientists obscured the truth on issues from tobacco to global warming* [London: Bloomsbury, 2010]). Propagandists of different harmful industries and market fundamentalists have for decades, often in unison, systematically spread doubt where there was in fact a scientific consensus on the existence and harmfulness of the issues in question (active and passive tobacco smoke; acid rain; the ozone hole; climate change). And when that was not enough, they straight-out denied scientific evidence and truths in their concerted and cash-loaded campaigns which aimed at influencing the public and politics alike.

fashionable talk about historiographic exceptionalism, or historiography being an art instead of a science, can in this sense *not* be based on the presumed difficulties of creating knowledge about the past or on the necessity of presentism and anachronism in historiography.