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Why Study History? On Its Epistemic Benefits and Its Relation to the Sciences

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Abstract

I try to return the focus of the philosophy of history to the nature of understanding, with a particular emphasis on Louis Mink's project of exploring how historical understanding compares to the understanding we find in the natural sciences. On the whole, I come to a conclusion that Mink almost certainly would not have liked: that the understanding offered by history has a very similar epistemic profile to the understanding offered by the sciences, a similarity that stems from the fact that both are concerned with grasping how the objects of their study are structured, or how the various elements of the things they study depend upon and relate to one another. At the same time, however, I claim that historical inquiry naturally puts us in a position to acquire further epistemic goods, including the old-fashioned epistemic good of wisdom, which is plausibly constituted by knowledge of how to live well. This is something the natural sciences cannot offer, and it is part of the reason why history is such an important form of inquiry.

In an incisive essay published fifty years ago, Louis Mink[1] argued that in order to appreciate what is distinctive about history as a discipline, we first need to clarify what is distinctive about the *epistemology* of history. In particular, he suggested, we first need to clarify how the sort of understanding offered by history differs from the understanding offered by the natural sciences. Only thus, Mink claimed, can we properly establish not just history's autonomy as a form of inquiry, but also its special importance.

Mink's call to focus on the nature of historical understanding had a respectable lineage; it goes back at least as far as the great German philosophers Wilhelm Dilthey and Johann Gustav Droysen.[2] But, for

[1] Louis Mink, 'The Autonomy of Historical Understanding', *History and Theory* **5** (1966), 24–47.

[2] For more on the history of this view, see Mark Bevir, 'Introduction: Historical Understanding and the Human Sciences', *Journal of the*

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the most part, the call was little heeded because of the tremendous impact of Carl Hempel's work in the philosophy of history, which focused not on the nature of historical understanding but rather on the nature of historical *explanation*.[3] Hempel's papers therefore led to several decades of argument about whether the 'explanatory logic' of historians mimicked the natural sciences, or whether it had a logic of its own.[4]

As Jaegwon Kim has argued, however, what was typically left out of this focus on various models of explanation was precisely their epistemic relevance – that is, how these different models were supposed to provide understanding in the mind that took them up, and how they were supposed to inform the distinctive modes of thinking that characterized either history or the natural sciences.[5] As Kim suggests, the focus on explanation rather than understanding therefore seemed to get things back to front: since we presumably desire explanations because of the understanding they provide, understanding should in some way be normative for explanations. In the decades following Hempel's contributions, however, it was explanation calling the shots, with understanding playing a minor role.

Philosophy of History **1** (2007), 259–70; and Uljana Feest, 'Historical Perspectives on Erklären and Verstehen: Introduction', in *Historical Perspectives on Erklären and Verstehen* (ed.) Uljana Feest (Dordrecht: Springer, 2010).

[3] See especially Carl Hempel, 'The Function of General Laws in History', *Journal of Philosophy* **39** (1942), 35–48; Carl Hempel, 'Reasons and Covering Laws in Historical Explanation', in *Philosophy and History: A Symposium* (ed.) Sidney Hook (New York: New York University Press, 1963).

[4] For an overview, see Graham Macdonald and Cynthia Macdonald. 'Explanation in Historiography', in *A Companion to the Philosophy of History and Historiography* (ed.) Aviezer Tucker (Malden, MA: Wiley-Blackwell, 2009).

[5] Kim writes: 'The actual theories of explanation that we have accumulated to date, such as Hempel's covering-law theory, the causal theories of Salmon, Lewis, and Humphreys, the pragmatic theories of Bromberger, Achinstein, and van Fraassen – don't look much like theories of understanding or accounts of a type of knowledge. Although explanatory understanding is sometimes mentioned… it seems quickly to be lost sight of when serious theory construction begins, and terms like "understanding", "intelligibility", and "explanatory knowledge" seldom make an appearance once the initial stage-setting is over'. Jaegwon Kim, 'Explanatory Knowledge and Metaphysical Dependence', in his *Essays in the Metaphysics of Mind* (Oxford: Oxford University Press, 2010).

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In this essay, I will try to return the focus in the philosophy of history to the nature of understanding, with a particular emphasis on Mink's project of exploring how historical understanding compares to the understanding we find in the natural sciences.[6] On the whole, however, I will come to a conclusion that Mink almost certainly would not have liked: that the understanding offered by history has a very similar epistemic profile to the understanding offered by the sciences. The particular things understood differ, of course, because history is primarily concerned with human beings and their actions, while the natural sciences are not so restricted. But, I will argue, this difference in content does not amount to a 'deep difference' because the powers of the mind that are engaged in understanding in the two areas are strikingly similar, and the general things that are understood – what I will call 'structures' – are fundamentally the same. In terms of the intrinsic epistemic benefits they offer, or in terms of the epistemic profile of the understanding produced, it is hard to find deep differences.

At the same time, and perhaps more pleasingly to Mink, I will argue that historical inquiry naturally puts us in a position to acquire further epistemic goods, albeit goods that I claim are *extrinsic* to the study of history. In particular, I will claim that history enables us both (i) rationally to assess the legitimacy of our current practices and institutions, as well as (ii) to expand our sense of what it might mean to live well as a human being. History therefore provides the raw materials for the old-fashioned (indeed, perhaps *un*fashionable) epistemic good of wisdom, which is plausibly constituted by

[6] A subtle issue here is that there were other thinkers around Mink's time, such as William Dray, who advocated a *verstehen* approach to the human sciences, i.e. one that focused on the idea of 'empathetic understanding' as a distinctive *method* of the human sciences. See, e.g. William Dray, *Laws and Explanations in History* (Oxford: Oxford University Press, 1957); William Dray, 'The Historical Explanation of Actions Reconsidered', in *Philosophy and History: A Symposium* (ed.) Sidney Hook (New York: New York University Press, 1963). This is in keeping with the earlier *methodenstreit* (debate over method) involving Dilthey, Weber, and others. Mink, however, was careful to distinguish the idea of empathetic understanding as a method from the idea of understanding as an epistemic *goal* of inquiry. Op. cit. note 1, 38. Getting clearer about the goal might well have consequences for methodology, but Mink thought it more important to focus on the goal first – a point about which I believe he was exactly right.

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knowledge of how to live well.[7] This the natural sciences cannot offer, even in raw form, and it is part of the reason why history is such an important form of inquiry.

1. A General Framework for Understanding

Let us first try to clarify the sort of understanding that the natural sciences offer. This will allow us both to see where historical understanding conforms to this pattern, as well as where it might seem to chart a new course.

To begin with, it is worth noting that for some it is a mistake to even try to clarify the sort of understanding the natural sciences offer because, properly understood, they do not offer any understanding at all. This is due to the fact, it is said, that you can only understand something if it has an 'inner life' to *be* understood, and since things in the natural world like atoms and stars lack an inner life, we can only try to explain or predict how they will behave, rather than understand them. As Isaiah Berlin succinctly put the idea, which he attributed to thinkers such as Vico, Dilthey, and Droysen: 'We observe, we learn facts about, but we cannot understand, stones or the death-watch beetle'.[8]

It seems fair to say that this radical view is clearly *too* radical: natural scientists certainly seem driven by a desire to understand the world, and they certainly seem to acquire a deep and profound understanding of it. Still, I believe Berlin's encapsulation of this idea is instructive, because it indicates a helpful way forward.

To see this, grant for a moment that it sounds odd to say that you can understand something like a stone.[9] Still, it hardly sounds odd to say that you can understand countless other things in the natural world, such as volcanoes, or cells, or Brownian motion. But we can then ask: what is it that makes these later things apt for understanding? Why does it seem odd to say that you can understand something

[7] For a defense, see Stephen R. Grimm 'Wisdom', *Australasian Journal of Philosophy* **93** (2015), 139–54, and Stephen R. Grimm, 'Wisdom in Theology', in *The Oxford Handbook for the Epistemology of Theology* (eds) William Abraham and Fred Aquino (New York: Oxford University Press, forthcoming).

[8] Isaiah Berlin, *Vico and Herder: Two Studies in the History of Ideas* (London: The Hogarth Press, 1976), 28.

[9] Leaving the poor death-watch beetle out of things for the moment, although I believe this case is worth thinking carefully about in its own right.

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like a stone, but perfectly reasonable to suppose that you can understand things like volcanoes, or cells, or Brownian motion?

The reason, I suggest, is that while all of these latter things have *structure*, stones intuitively do not – that is to say, stones do not have elements that depend upon and relate to one another in the way that volcanoes and cells do.[10] They instead seem more like arbitrarily attached parts than like a working whole.[11] It therefore seems that we have apt candidates for understanding – things to be understood – when we have structures with various elements that depend upon and relate to one another.

This idea accords with Philip Kitcher's[12] claim that a central aim of science is to grasp the structure of the world; it is also in keeping with the oft-repeated claim of scientists that their main goal is to figure out how the objects of their study 'work', whether those objects be volcanoes or cells or Brownian motion (or cancer, or black holes, or photosynthesis, and on and on). In these cases, I suggest, figuring out how something works is equivalent to figuring out how the various elements of the thing depend upon, and relate to one another. This is reflected in the fact that one of the main goals of experimental design in the sciences is to isolate variables and control for outside influences – presumably so scientists can better appreciate how changes in certain

[10] For other contemporary philosophers who tie understanding to structure, see Linda Zagzebski, 'Recovering Understanding', in *Knowledge, Truth, and Duty: Essays on Epistemic Justification, Responsibility, and Virtue* (ed.) Matthias Steup (Oxford: Oxford University Press, 2001); Stephen R. Grimm, 'Understanding', in *The Routledge Companion to Epistemology*, eds. Duncan Pritchard and Sven Berneker (New York: Routledge, 2011); Stephen R. Grimm, 'Understanding and Transparency', in *Explaining Understanding: New Perspectives from Epistemology and Philosophy of Science* (eds) Stephen R. Grimm, Christoph Baumberger, and Sabine Ammon (New York: Routledge, 2017); and John Greco, 'Episteme: Knowledge and Understanding', in *Virtues and Their Vices* (eds) Kevin Timpe and Craig Boyd (Oxford: Oxford University Press, 2014). According to Julius Moravcsik, this was also the view of the ancient Greeks, especially Plato. See Julius Moravcsik, 'Understanding and Knowledge in Plato's Philosophy', *Neue Hefte für Philosophe* **15** (1979), 53–69.

[11] Alternatively, if you were to push back and claim that there is such structure in a stone, as some audiences have done, then I submit it would then become a good candidate for understanding.

[12] Philip Kitcher, 'Explanatory Unification and the Causal Structure of the World', in *Minnesota Studies in the Philosophy of Science*, vol. 13 (eds) Philip Kitcher and Wesley Salmon (Minneapolis: University of Minnesota Press, 1989).

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variables (i.e. elements of the structure or system) will lead, or fail to lead, to changes in others. In a slogan, the idea is therefore that science *reveals* structure by showing how the various elements of the world depend upon and relate to one another.

Taken in this way, all of the sciences are plausibly concerned with revealing such structures – not just disciplines such as physics, chemistry, and biology, where talk of structure is commonplace, but also fields such as evolutionary biology where appeals to structure might not be as obvious. (Thus, as Lewens[13] points out, an evolutionary biologist will help us to understand how the length of sperm whale's enormous nose depended on *these* factors rather than those, etc.)

What is more, in appealing to the idea of structure – structure that tracks dependency – we do not have to say that a concern for laws of the sort that Hempel emphasized is banished from this picture of the sciences. Far from it. Instead, these dependencies can often be expressed in law-like form – even if they do not hold universally, or in an exceptionless way. Thus a simple law like Newton's second law, $f = ma$, can be taken to express the way in which these different properties or variables (force, mass, and acceleration) depend upon one another, in the sense that the formula shows us, in compact form, how changing the value of a variable such as mass will lead, *ceteris paribus* – to a change in the force. It also suggests, by what it leaves out, that changing the value of certain other variables – say, the color of an object – will fail to lead to changes in the force variable.

For our purposes here, a special advantage of this approach is that it seems like historians too would be willing to sign on to the idea that they are interested in identifying structures or relations of dependence within the various societies or periods they study. Further, when I speak of structures or relations of dependence, this is meant to be broad enough to encompass the way in which an individual or group's actions can be said to depend on *reasons*. Thus a historian might explain Alexander's decision to invade India in 326 BC in terms of his desire 'to reach the ends of the world and the Great Outer Sea', along with his belief that the invasion would accomplish this. Here we can come to understand his action by identifying the beliefs and desires (surely more complex than just described) that underwrote his decision, or on which his decision depended.[14]

[13] Tim Lewens, *The Meaning of Science* (London: Penguin, 2015), 255–256.

[14] A further advantage of adopting the language of dependence is that it allows us to sidestep controversial talk of someone's reasons *causing* his or

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So far then we seem to have a natural parallel between the natural sciences and history. In both types of inquiry, understanding a thing – whether a physical or biological system, or an ancient system of trade, or a person's actions – turns on grasping its structure, that is, how its various elements depend upon and relate to one another.

2. Deep Differences

Suppose we grant that uncovering structure and thus revealing dependencies is a common pursuit of the historian and the scientist. In a moment I will turn to consider whether there is anything deeply different about the *kind* of structures they examine, or perhaps about the way they are grasped or entertained, that would indicate a deep difference between historical and scientific understanding. First, however, we need to say more about what a 'deep difference' might amount to in this area.

For comparison let us focus not on the epistemic good of understanding, but rather on the epistemic good of *knowledge*. Even though we can suppose that something – a belief, say – will only count as an instance of knowledge in virtue of reliably getting the world right,[15] within the genus or 'big tent' of items that count as knowledge we can nonetheless point to a variety of deep differences. Thus *a priori* knowledge will be deeply different in kind from perceptual knowledge, for instance, and memorial knowledge and introspective knowledge quite different besides.

Further, a plausible reason why these various types or species of knowledge are so diverse is because their objects are so diverse.[16] Thus roughly speaking *a priori* knowledge is concerned with

her actions – which might make it seem like the reasons coerce or determine the actions, and hence drive out free will. Regardless of how one thinks reasons are related to actions – whether it is by coercion or not – there can be little doubt that the actions depend upon the beliefs and desires, and that the historian gains in understanding to the extent that he or she can identify an agent's genuine reasons (i.e. motivating beliefs and desires) as distinct from the spurious ones. For more detail on Alexander's thinking in this example. For more on Alexander, see Philip Freeman, *Alexander the Great* (New York: Simon & Schuster), ch. 3.

[15] I state this only as a plausible necessary condition, leaving Gettier examples aside.

[16] This accords too from the Platonic and Aristotelian dictum that differences in forms of knowledge are taken from differences in their object.

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necessary truths, while perceptual knowledge is concerned with the world around us, introspective truths with the contents of our consciousness, and memorial knowledge with our past experience. The marked differences in these objects thus bring very different powers of the mind into play, or perhaps better different modes of thinking that are appropriate to these objects. By comparison, it seems clear that are *no* deep differences between items of knowledge such as 'perceptual knowledge of plates' as against 'perceptual knowledge of cups', or between 'memorial knowledge of what happened last Wednesday' as against 'memorial knowledge of what happened last Thursday'. These do not amount to deep differences in types of knowledge, it seems, mainly because their objects are so similar.

Returning to the nature of understanding, our question then is this: Are the particular structures grasped by historians and scientists so distinct that they mark deep differences in kinds of understanding?

In the remainder of the paper I will focus on two reasons for thinking there are such deep differences in structure. First, because scientific understanding inherently appeals to more general or abstract structures (or relations of dependence), while historical understanding inherently appeals to more particularized, narrative, and diachronic structures; second, because historical understanding appeals to 'holistic' structures in a way scientific understanding does not.

3. Science and Generalized Structure

To see what I have in mind by the generalizing nature of scientific understanding, consider the following two examples.

First, suppose that as you walk into the kitchen you find your spouse chopping onions, and you notice her eyes begin to water. Based on your experience with the ways of the kitchen and the chopping of onions, you will now more or less automatically attribute the watering to the chopping. Although other things were going on at the time – the dog just entered the room, a car honked outside, motes of dust were landing on her arm, and so on – you will instinctively rule these out as the sources of the watering. You correctly understand why her eyes are watering via grasping that the watering depends upon the chopping of the onions, not these other things.[17]

[17] Elsewhere I have argued that we can model these ideas on the notion of a 'dependence map', of the sort described by Alison Gopnik in various works. See, for instance, Grimm, op. cit. note 10; Alison Gopnik et al. 'A

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And yet, while I take it you now understand – in some way, or to some degree – why your spouse's eyes are watering, from a scientific point of view you arguably do not 'really' understand why her eyes are watering unless you can provide a more substantial account. In particular, from the point of view of scientific understanding, 'really' understanding the watering will plausibly require knowing what it is about the chopping of the onions, and the way the chopping interacts with the constitution of the human eye, that leads to the watering.[18] On this account, everyday things like 'onions' and perhaps even 'eyeballs' plausibly fall away as understanding grows. What becomes important is identifying the general or underlying properties that onions and eyes possess, and relating them to one another in generalized terms.

Or again, suppose you are in your living room and you see your TV spring to life. You also notice your daughter on the sofa with her thumb on the power button of the TV remote, so you naturally and instinctively attribute the turning on of the TV to the pressing of the button. Under normal circumstances, we will therefore be perfectly happy to say that you now understand why the TV sprang to life; given your past experience, you know it wasn't the breeze that just came through the window, or the new song that came on the radio. You know it was the pressing of the button on the remote.

Here again, however, even though you will have a certain degree of understanding in light of having identified the dependence between the TV and the remote, I take it that if you really wanted to scientifically understand why the set turned on you would leave behind talk of remotes and TVs altogether and instead think in terms of things like light-emitting diodes, infrared pulses, and photo cell receptors.

One tempting moral to draw from these cases is therefore that in the sciences increases in understanding inherently lead towards

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Theory of Causal Learning in Children: Causal Maps and Bayes Nets', *Psychological Review* **111** (2004), 3–32; and Alison Gopnik, 'Scientific Thinking in Young Children: Theoretical Advances, Empirical Research, and Policy Implications', *Science* **337** (2012), 1623–1627. Other philosophers who importantly appeal to dependence in their accounts of understanding include Michael Strevens, *Depth: An Account of Scientific Explanation* (Cambridge, MA: Harvard University Press, 2011), and John Greco, op. cit. note 10.

[18] It will require knowing, for example, that in chopping the onions a gas called Propanethiol S-oxide is released, and that when this gas reaches the eye it reacts with the water to form a diluted solution of sulphric acid, which irritates the nerve endings of the eye, causing them to water.

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generality. They lead the inquirer, that is, to think of particular cases of dependence as token instances of a larger type. It is, moreover, when we move to the level of the type, or the more general category – leaving behind individual onions for sulfuric acids, or TV remote controls for infrared pulses – that we 'really' understand how the world is structured, and how its various elements depend upon one another.

4. Historical Structure: Generalizations and Narratives

Suppose for the moment that this move towards generalization is true across the board with respect to scientific understanding.[19] Can the same be said of historical understanding? Or do we here have the makings of a deep difference? In this section I will suggest that the answer to this question is: Yes and No. It depends on the sort of history on offer. But to see this will require first saying a little more about the nature of history, and marking a few important distinctions in the literature.

For simplicity, suppose in doing history we start by trying to establish 'what happened' – what some philosophers of history have dubbed a mere chronicle.[20] While establishing such a chronicle or record of events may well be the fruit of ingenious, creative, and painstaking research, it would not be yet, I take it, the sort of historical research that yields an understanding of why things happened. Instead it would be more akin to a layperson, in one of our previous examples, establishing a record of events along the lines of: a new song came on the radio, the girl pressed the remote, a breeze came through the window, the TV sprang to life, and so on.

So what then would it take to bring this chronicle to life, or to make it the sort of historical account that yields an understanding of why these events happened? According to Morton White's influential analysis from the 1960s, it would require identifying the explanatory connections that hold between these various events, and laying them out in a way that yields a historical *narrative*, and not simply a chronicle. To appeal to White's example:

> The chronicler is likely to tell us: 'The King of England died, and then the Queen of England died, and then the Prince of England

[19] I will, however, raise doubts about this claim in the following section.

[20] For more on the distinction between histories and chronicles, see e.g., Arthur Danto, *Analytical Philosophy of History* (Cambridge: Cambridge University Press, 1968), ch. 7.

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> died, and then the Princess of England died. And there endeth our chronicle.'[21]

But, White claims, things are quite different with 'a corresponding history', which is likely to read':

> 'The King of England died, so the Queen of England died of grief. And because he worried so much about the Queen's death, the Prince of England committed suicide; and therefore the Princess of England died later of loneliness. And so endeth our lugubrious history.'[22]

As this suggests, on White's analysis we gain understanding of the various events in the chain through grasping the explanatory connections that link them, especially connections that can be marked by words such as 'because' or 'therefore'.

For simplicity, we might graph White's case in a 'dependence map' as follows:

> *King's death → Queen's death from grief → Prince's suicide from worry → Princess's death from loneliness*

Now it seems clear that in grasping any particular pairwise relation of dependence here – say, the Princess's death from loneliness, because of her brother's absence – one would thereby acquire some legitimate understanding of the resulting event. What would it take, however, to *grow* in understanding of the Princess's death, or to come to 'really' or 'fully' understand it? Mimicking the earlier logic of scientific understanding, it might seem that the apt thing to do is to try to generalize as much as possible, first by seeing the Princess and the Prince as tokens of particular types, and second by trying to establish more general regularities or dependencies that hold among those types. Along the latter lines, perhaps one might say that people with tight kin connections of *this* type, when confronted with circumstances of *this* type, tend to react in *these* sorts of ways.

It seems clear enough that historians sometimes look for (and, in my view, sometimes find) precisely these high-level patterns, and might indeed grow in understanding thereby.[23] In light of the

[21] Morton White. 'Comments on Historical Explanation', in *Philosophy and History: A Symposium* (ed.) Sidney Hook. (New York: New York University Press), 3.

[22] Ibid., 6.

[23] Think for instance of Jared Diamond's Pulitzer-Prize-Winning book *Guns, Germs, and Steel*, where he argues the real drivers of historical events are not particular agents and their decisions but rather large-scale forces

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appeal to narrative, however, especially the diachronic or spread-over-time nature of most stories, we can now see *another* way of thinking about how growth in understanding might occur, and one that is *prima facie* distinctive of the human sciences. In particular, the appeal to narrative invites the idea that one's understanding of some particular event in the chain – say, the culminating event of the Princess's death – might deepen or improve the further back one goes in the chain. Thus someone who knows that the Princess died because she terribly missed the Prince surely has *some* authentic understanding of why she died – such a person does not, after all, mistakenly attribute the death to poisoning or the like – but is also seems that the person's understanding of why the Princess died would grow or increase *the more she learned about the story*. That is to say, someone who knows the whole tale from the beginning, the whole chain of dependencies, would seem to *better* understand why she died than somehow who grasped only the last pair in the chain.

And here there might be thought to be nothing parallel going on in the sciences. After all, your understanding of why the TV sprang to life – taken as a physical event – does not seem to increase the further you go into the past. Instead, you seem to have everything you need right now for understanding this if you can appeal to the sorts of generalized dependencies I noted earlier, concerning light waves, photo receptors, and so on. Someone who understands all this, it seems, can exhaustively or entirely understand why it sprang to life – no history needed.

5. Narratives and Scientific Understanding

Does this then offer us a deep difference we were looking for between kinds of structure? On the one hand, that the structures of interest to science are inherently general and abstract; on the other, that the

relating to disease rates, improvements in technology (especially weaponry), and diet (especially access to protein rich foods). See Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W. W. Norton, 1999). And of course there are the grand theories of philosophers such as Hegel and Marx – where the real variables moving history, the things that determine why one alternative transpires rather than another, are much deeper than the naked eye suggest, and thus where 'real understanding' is genuinely located.

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structures of interest to historians are inherently specific, particularized, and diachronically-embedded?

We have already considered, albeit briefly, one reason to doubt such an easy distinction: that there seem to be perfectly viable projects in history that look for general trends and dependencies. At the same time, another reason to doubt such an easy distinction – and arguably a more interesting one, because easier to overlook – comes from the fact that many sciences *themselves* find understanding in particularized, diachronically-embedded structures. In other words, there are many sciences – especially those that have a 'backward-looking' element, such as geology, or evolutionary biology, or cosmology – where a deeper knowledge of the narrative chain leading up to current circumstances is importantly tied to growth in understanding.[24]

We gestured at this with respect to the case of the sperm whale's nose earlier, but for an additional example consider a geological narrative of how the Himalayas were formed. It seems fair to say that someone who can point to the high-velocity crash of India into the Asian subcontinent, some eighty million years ago, as the proximate cause of the Himalayas and their staggering height has *some* genuine understanding of these things, but that someone who grasps the whole causal series leading to the crash plausibly has a still better understanding of the Himalayas and their height. Thus someone who correctly knows that India broke off from a section of Africa near Madagascar seems to have a better understanding of the Himalayas than someone who was ignorant about this, or someone who mistakenly believed India broke off from (say) Antarctica on its way towards Asia. And the same seems to hold for many other types of scientific inquiry that have a 'backward-looking' dimension: thus our understanding of global warming, or of our current evolutionary niche, seems to improve when we can trace these phenomena back

[24] For more on this point, see Carol Cleland, 'Philosophical Issues in Natural History and Its Historiography', in *A Companion to the Philosophy of History and Historiography* (ed.) Aviezer Tucker (Malden, MA: Wiley-Blackwell, 2009), and Karsten Stueber, 'Understanding Versus Explanation? How to Think about the Distinction between the Human and the Natural Sciences', *Inquiry* **55** (2012), 17–32. In geology, for instance, the slogan that 'the past is the key to the present' – usually attributed to one of the founders of the discipline, the 19th-Century Scottish scientist Charles Lyell – seems to be as central to the geologist's self-understanding as Socrates's dictum that 'the unexamined life is not worth living' is to philosophers.

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through history, via a narrative that brings out how the present depends on the past.

So far, then, we seem to have the following results: There are some sciences where growth in understanding seems to occur when we turn to generalizations and abstractions. But arguably too there are strains of historical work where growth in understanding occurs in the same way. Moreover, just as our understanding of certain historical events seems to grow by looking further into the narrative past, at earlier chains of explanatory connections, so too there seem to be certain sciences – such as geology, evolutionary biology, and cosmology – wherein our understanding increases as we learn more about the past, and especially about earlier chains of explanatory connections.

In short, we have yet to find a deep difference between the kinds of structure studied in history and the natural sciences, at least not one that holds across the board.

6. Understanding and the Space of Possibility

In this section I will consider one final suggestion, inspired by Mink himself.[25] The idea here is that historical understanding is in some sense 'holistic' in way that scientific understanding is not, a fact reflected in the way that scientific findings are 'detachable' in a way that historical findings are not. Thus according to Mink the historian typically arrives at his or her understanding of an era by developing a rich sense of the context of that era, and keeping this context in mind is in some way intrinsic to the understanding itself. This is why, Mink argues, you need to read a historian's whole *books*, and not merely the abstracts of those books, in order to understand what he or she understands. By comparison, he claims, scientists can often summarize their results in short conclusions, which can then be communicated easily to other scientists. Historical understanding therefore apparently requires coming to grips with 'wholes' – whole contexts, or expansive structures of some kind – in a way that scientific understanding does not.

This is, I believe, an important insight but also a subtle one, so to better grasp the idea it will help to turn to another example, one with a bit more historical grounding than Morton's lugubrious narrative. With its 500th anniversary approaching, it is perhaps particularly apt to focus on the circumstances surrounding the Reformation in Germany, which we might as a first start portray like this:

[25] Op. cit. note 1, 38–41.

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Catholic Church's growing worldliness → Luther's dissatisfaction → Luther's dissent → Church's attempts at suppression → 30 years war…

Clearly, this is all quite crude. But suppose for the sake of argument that the relations of dependence here are at least genuine. We can now again ask: What would it take to grow in historical understanding of this series, or of a particular pairing in the series? And does this direction of this growth lead us to a new and distinctive kind of structure to be grasped?

Consider, for instance, the Church's attempts at suppression. On the one hand, and to return to an earlier suggestion, it might be thought that a move towards generality will lead to an increase in understanding on this score. Rather than think of the Catholic Church in particular, we could think instead in terms of a type such as 'a powerful religious institution' or perhaps just 'a powerful institution'; and rather than think of Luther in particular, we could think instead of just 'a dissenting member of that institution' or the like. We might then be able to arrive at a generalization such as that powerful institutions will attempt to suppress dissent, when feasible. Alternatively, it might be thought that understanding grows the more one learns about the earlier links in the narrative. I will understand more about the Church's attempts at suppression as I learn more about, e.g. the reasons why the Church was becoming more worldly in the 14th and 15th centuries.

I do not want to dispute these moves as ways of gaining understanding, and we have already said something about them earlier. Building on Mink's insight about holism, however, what I now want to suggest is that historical understanding can grow in still another way, and one that might be thought to mark out a deep difference with scientific understanding. This is in a *holistic* way that emphasizes the sort of 'modal context' that surrounds a particular event or decision.[26] That is, one that emphasizes the alternatives or

[26] For more on the importance of modality for understanding, see Robert Nozick, *Philosophical Explanations*. (Cambridge, MA: Harvard University Press, 1981), 8–13; Geoffrey Hawthorn. *Plausible Worlds: Possibility and Understanding in History and the Social Sciences* (Cambridge: Cambridge University Press); Peter Lipton, 'Understanding Without Explanation', in *Scientific Understanding: Philosophical Perspectives* (eds) H. De Regt, S. Leonelli, and K. Eigner (Pittsburgh: Pittsburgh University Press, 2009), 49–52; Soazig le Bihan, 'Enlightening Falsehoods: A Modal View of Scientific Understanding', in *Explaining Understanding: New Perspectives from Epistemology and Philosophy of*

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possibilities that were (in some sense) 'open' at the time, but which were not actualized. Historical research is not just epistemically distinctive but also particularly valuable, on this suggestion, because it brings to life or unearths these different possibilities, and because it helps us to appreciate why certain alternatives were realized rather than others.

Consider, for instance, the Church's attempts to suppress the dissent surrounding Luther, sometimes with the aid of force. While one might think this is explicable, predictable, intelligible, and so on just in virtue of the sort of general principle a Hempelian might espouse – that powerful institutions (or perhaps powerful religious institutions in particular) naturally move to suppress dissent – a historian will likely be dissatisfied with this sort of account precisely because she will be aware of many occasions on which powerful institutions did *not* suppress dissent, and she will want to know what it is that distinguishes this occasion from others. With respect to the medieval Church in particular, she will also plausibly be aware that dissent was endemic in the medieval Church, often to the point of heresy; and yet for all that, the dissent was typically tolerated rather than suppressed.[27] (see e.g. Elton 1990: ch. 1). So what was it, she will naturally be driven to ask, that made it seem more important to move against the dissent in Luther's circumstances, rather than tolerate it? To *really* understand the Church's attempt at suppression, she will need to know more.

Plausibly, understanding grows in these cases when one can identify additional elements of Luther's dissent that were what we might call distinguishers or difference makers – that is, elements that helped to bring about one of these alternatives rather than others, and thus enrich our sense of the context.[28] In Luther's case, historians have

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Sciences (eds) Stephen R. Grimm, Christoph Baumberger, and Sabine Ammon (New York: Routledge, 2017); and Stephen R. Grimm, 'Understanding as an Intellectual Virtue', in *The Routledge Handbook of Virtue Epistemology* (ed.) Heather Battaly (New York: Routledge, forthcoming).

[27] See e.g. Geoffrey Elton, *The Reformation, 1520–1559*, from *The New Cambridge Modern History*, Volume 2 (Cambridge: Cambridge University Press, 1990).

[28] This is a point emphasized by the historian Leonard Krieger in his discussion of Dray: '[William Dray] grasps, in the first place, an essential feature of what satisfies the historian in way of explanation – that when a historian seeks to explain a particular action what he wants explained is precisely the particularity of the action: why it was produced by this man at

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pointed to the recent advent of the printing press, which made it easier for people to learn about his dissent, and hence made that dissent more embarrassing for the Church; or again, they have pointed to Luther's powerful political patrons who were eager to assert their authority against Rome, and hence helped make him more than an isolated dissenter in the hinterlands; and so on.[29]

Deeper or richer historical understanding in this sense would therefore be holistic because it would encompass not just some final pairwise statement of dependence, but the range of possibilities that in some sense 'framed' this final statement. This is why we need to read the historian's books, and not just brief abstracts of her 'findings' – because we need to appreciate the fuller modal context within which particular dependencies were identified, in order to properly describe her settled state of understanding. As we might put it, being 'alive' to these different possibilities is part of her ultimate epistemic accomplishment, and not a mere step in the journey. For notice that if you think that 'Luther's dissent' is a fine but ultimately inadequate explanation, and you think that 'Luther's dissent *combined* with developments in printing, strong political support', and so on is a much better explanation, then this is plausibly because you are implicitly bearing in mind (or cognitively reckoning with) the other occasions in which dissent was met with toleration.

This therefore arguably offers us a new way of thinking about the *structure* that is understanding's object in cases like this – one that extends into the 'possibility space' surrounding the focal event we would like to understand, and thus cannot be easily charted in the sort of diachronic graphs we appealed to earlier. But we can once again ask, now for a final time: Even if we are right in thinking that historical understanding is holistic in this way, does it thereby offer us a deep difference with scientific understanding? For better or worse, I again have my doubts.

To see why, consider a parallel example in the sciences. Suppose a crop scientist is wondering why the corn in a certain British county is

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this place in time. If an historian understands that the relationship between his condition and his action as a case of a generic relationship between classes of such conditions and such actions, then he sees in this not an explanation but something to be explained – how this relationship differs from others in the class' Leonard Krieger, 'Comments on Historical Explanation', in *Philosophy and History: A Symposium* (ed.) Sidney Hook (New York: New York University Press), 137.

[29] Op. cit. note 27.

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wilting. Through careful testing he concludes that it is not because of the local insects, or because of lack of water; it is because of a new fungus in the area. It therefore seems that he now understands why the wilting is occurring, and this because he has identified a real relation of dependence between the wilting and fungus.

But now suppose he learns from a scientist in a county further north that the fungus was introduced there, and yet the corn did not wilt. He will then naturally be led to ask: why did the fungus produce wilting in the crops in *my* county rather than the northern one? What is it that accounts for the difference? Suppose after further investigation he finds a significant difference (on average) in the acidity in the soil between the two counties. Plausibly, then, it is not just the fungus that makes a difference to the wilting, but the fungus *combined with* a certain sort of soil. His understanding will therefore grow, it seems, as he develops this richer sense of the variables upon which the wilting depends.

I hope the analogy with the Luther example is clear. In both cases, it seems, two things are in play: first, understanding is both deeply tied to the inquirer's sense of possibility; second, that the possibilities that the inquirer entertains in some sense 'live on' in the understanding he or she eventually achieves. They live on, because the inquirer's sense of the possible informed his sense of what he needed to rule out, or take into account, in order to achieve understanding in the first place.

I conclude that the holistic character of many instances of historical understanding are therefore not unique to history, because it can also be found in many cases of scientific understanding. Perhaps not in all cases of scientific understanding, but in enough that we do not seem to have a deep difference, across the board, between these areas of inquiry.

7. The Extrinsic Epistemic Benefits of History

To this point my conclusions have been mostly negative: in particular, I have argued that there are no deep, intrinsic differences between historical understanding and scientific understanding that hold across the board. In both history and the sciences, the objects of understanding are structures, and in both cases we understand when we figure out how these structures 'work' – that is, how the various elements in the structure depend upon and relate to one another.

In *some* cases these are high-level, generalizing structures, and in *some* cases they are diachronic, particularizing structures – but this

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variation in structure is something that can be found both within the natural sciences and within history. I have also claimed that in many cases our quest for understanding is closely tied to our sense of possibility, or of the sort of contrasts we are trying to rule out.[30] The person who understands is therefore able to identify what it is that makes the difference among these possibilities. But again, I believe this is an important point of commonality between the sciences and history, not a deep difference.

In the remainder of the paper I will nonetheless argue that the special nature of history's subject matter – namely, human beings – naturally gives rise to a range of extremely valuable and closely related *extrinsic* epistemic benefits, ones that extend beyond the intrinsic benefit of grasping how the objects of their study depend upon and relate to one another.[31]

First, to clarify: when I speak of a 'closely related extrinsic benefit', I mean one that in some sense naturally follows from, but is not identical to, the intrinsic benefit. The epistemic good of knowing how to ride a bicycle, for instance, naturally gives rise to the extrinsic benefit of riding a bicycle, and the epistemic good of knowing how to make coffee naturally gives rise to the extrinsic benefit of drinking coffee (one hopes, *good* coffee). These are both cases of practical benefits naturally flowing from epistemic goods, but there are also cases of epistemic benefits flowing from epistemic goods. Thus knowing how to read gives rise to the numerous epistemic benefits to be found in books, or knowing how to do Carbon-14 dating gives rise to rise to new information about the age of objects. In all these cases, the extrinsic good follows naturally from the intrinsic good, but is not the same as it.

With this in mind, I will now argue that the study of history gives rise to two extremely valuable epistemic benefits, albeit ones that are extrinsic in the same way. First, it puts us in a position to evaluate the legitimacy or illegitimacy of many of our current practices and institutions. Second, it provides us with a sense of 'what is was like' to be

[30] I have not argued, here, that this holds for all cases of understanding, though I believe that it does. For an argument see Stephen R. Grimm, 'Explanatory Inquiry and the Need for Explanation', *British Journal for the Philosophy of Science* **59** (2008), 481–497.

[31] For other ways in which the study of human beings seems to make a difference, see Stephen R. Grimm, 'How Understanding People Differs From Understanding the Natural World', *Philosophical Issues* (*Noûs* supplement) **26** (2016), 209–225.

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part of past eras, and in this way expands our sense of the scope of human possibility.

To illustrate the legitimacy point first, suppose what we're trying to understand is not a natural thing like the Himalayas but rather a human institution or practice, such as the Electoral College of the United States. On the one hand, this desire for understanding might simply take us in the direction of how the College 'works' – how it is structured, and how these different elements of the structure relate to one another. But as we have seen there another sort of question we might ask, along the 'narrative' lines sketched earlier: namely, how did this particular institution, with this particular structure or arrangement, come to be? And here what the historian will naturally try to unearth is not just a narrative history that appeals to brute causes, in a way that the geologist might with respect to the Himalayas, but rather a narrative that appeals to reasons and choices that were made during the past.[32]

Suppose she successfully unearths these reasons, so we can appreciate how the present shape of the College depends upon them. That is, I take it, an important epistemic, understanding-centered benefit that is intrinsic to her historical inquiry. But it should also be clear that appreciating how a present arrangement depends upon these prior reasons and choices naturally puts us in a position to *evaluate* whether our present arrangement is based on good or compelling reasons, and hence worth keeping. Perhaps more importantly, where history reveals not *reasons* at the root of our current arrangements, but rather darker forces such as power, or oppression, or privilege, this gives us a powerful lens through which we can assess our practices not just as rational or irrational, but as just or unjust, as oppressive or discriminatory, and so on.

In charting how current arrangements depend on the past in this way, the historian therefore gives us an invaluable tool through which to assess the present.[33] That said, I nonetheless count this as

[32] In the case of the College, for instance, two reasons seemed to be particularly important. First, putting the final vote in the hands of the College's well-educated electors was supposed to be a guard against a tyrant winning the popular vote by duping or somehow or coercing the general public, which was thought to be more easily manipulable. It was therefore a check against 'the tyranny of the majority'. Second, it was supposed to ensure that small states had a substantial say in the presidential election, and that their voices were not simply swamped by the stronger voices of larger states.

[33] Note that there are often not simple 'carry overs', however. An unjust source does not necessarily mean a currently unjust practice, and bad reasons for the practice at a time might not necessarily amount to bad reasons for the practice now.

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an *extrinsic* benefit of historical understanding because to the extent that we take this genealogical information and turn to assess the reasons (motives, patterns of discrimination, etc.), we then take a step beyond historical evaluation and move to the realm of ethical evaluation. Thus we might well conclude, on the basis of the historian's narrative, that a current arrangement is unjust, because of its discriminatory roots. What's more, if we are right about this we will now enjoy an epistemic benefit (a newly formed, true moral assessment) that has naturally flowed from the narrative. But in doing so, I suggest, the evaluator will be taking off her 'historian's hat' and putting on her 'philosopher's hat'. This is not a bad thing, needless to say, because the same epistemic agent can move artfully between the two kinds of assessment; but it does indicate the limits of what history can tell us about the world, and about the need to move to other kinds of evaluation.

Second, I believe that in carefully laying out the modal context of past eras, the historian offers special insight into 'what it was like' to have been part of that era. Thus, for instance, it seems that to learn what it was like to be Alcibiades, or perhaps more generally like a 5th-Century BC Athenian, is at least *in part* to acquire a sense of the 'possibility space' that was spread out before the relevant actors – to acquire a sense of what their alternatives were like, and in particular which courses of action seemed closed and which seemed open. To be clear, I do not want to say that this is all that knowing 'what it was like' comes down to, but I do think it is an important part, and seems to be an intrinsic epistemic benefit of what the historian does when he or she details the context of a particular area.

In *acquiring* this intrinsic benefit, however, I believe one also naturally acquires the extrinsic epistemic benefit of expanding our sense of how we might live as human beings. One thereby learns, that is, different ways of being human, ways often radically different from one's own – for instance, one learns about different goods that were taken to be important at various times, and about how these various goods were ranked or prioritized. In this way, I believe, history also offers the opportunity to grow in wisdom, because it opens us to the possibility that our own ordering of goods might be misguided or in some way stunted. It therefore offers us different, and perhaps in some ways superior, models for living well.[34]

[34] Of course, it might also help us to appreciate the merit of our own arrangement of goods, insofar as we come to think that a prior society was lacking in various ways.

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Naturally, the claim is not that appreciating these things about past cultures *will* make us wise. That would be too much to ask. The point is instead that appreciating the historical context in this way can offer the raw materials for wisdom. If we use these raw materials well and we are fortunate, we will perhaps be a few steps further along the path towards wisdom than we were before.[35]

8. Conclusion

It is plausible that we all have a natural desire both to understand how the world works and to understand how to live well. I have argued that history and the natural sciences are both oriented to the first goal – that is, to figuring out how their respective subject matters work, or how the various elements of what they study depend upon and relate to one another. They thus share, in these basic respects, a common epistemic aim. I have also claimed, however, that history sheds crucial light on the question of how we should live, by helping us to explore the legitimacy or illegitimacy of our current practices and institutions, and by broadening our sense of human possibility. In this way history has a humanistic relevance that is simply foreign to the sciences, and that makes it particularly worthy of our study and attention.[36]

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[35] Naturally, I do not want to claim that history offers the only way of expanding our sense of the human. Sociology, anthropology, and other disciplines besides (especially those that study great literature) also offer this benefit.

[36] Many thanks to Anna Alexandrova, Gabriel Byng, Paul Christesen, Christopher Cowie, Rachael Grimm, Matt Dougherty, David Ibbetson, Daniel Jütte, and Michael Strevens for helpful discussion concerning the issues surrounding this paper.

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