The 2005 Nora and Edward Ryerson Lecture "The Narrative Structure of Moral Judgments in History: Evolution and Nazi Biology"

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April 12, 2005

Introduction: Scientific History

In his inaugural lecture at Cambridge as Regius Professor of Modern History in 1895, Lord Acton urged that the historian deliver moral judgments on the figures of his research. Acton declaimed:

I exhort you never to debase the moral currency or to lower the standard of rectitude, but to try others by the final maxim that governs your own lives and to suffer no man and no cause to escape the undying penalty which history has the power to inflict on wrong.¹

In 1902, the year after Acton died, the president of the American Historical Association, Henry Lea, in dubious celebration of his British colleague, responded to the exordium with a contrary claim about the historian's obligation, namely to render the facts of history objectively without subjective moralizing. Referring to Acton's lecture, Lea declared:

I must confess that to me all this seems to be based on false premises and to lead to unfortunate conclusions as to the objects and purposes of history, however much it may serve to give point and piquancy to a narrative, to stimulate the interests of the casual reader by heightening lights and deepening shadows, and to subserve the purpose of propagating the opinions of the writer.²

As our colleague Peter Novick has detailed in his great account of the American historical profession, by the turn of the century historians in the United States had begun their quest for scientific status, which for most seemed to preclude the leakage of moral opinion into the objective recovery of the past—at least in an overt way. Peter also catalogues the stumbling failures of this noble dream, when political partisanship and rampant nationalism sullied the ideal.³

Historians in our own time continue to be wary of rendering explicit moral pronouncements, thinking it a derogation of their obligations. On occasion, some historians have been moved to embrace the opposite attitude, especially when considering the horrendous events of the twentieth century—the Holocaust, for instance. It would seem inhumane to describe such events in morally neutral terms. Yet even about events of this kind, most historians assume that any moral judgments ought to be delivered as obiter dicta, not really part of the objective account of these events. Lea thought a clean depiction of despicable individuals and actions would naturally provoke readers into making their own moral judgments about the past, without the historian coercing their opinions.

This attitude of studied neutrality has become codified in the commandments handed down by the National Center for History in the Schools, whose committee has recently proclaimed: "Teachers should not use historical events to hammer home their own favorite moral lesson." Presumably this goes as well for the historian teacher, whose texts the students study.

I believe that these demands that histori-

ans disavow moral assessment neglect a crucial aspect of the writing of history, namely that the deep grammar of narrative history requires that moral judgments be rendered. And that is the thesis I would like to argue this afternoon, namely, that all historical narratives must make moral assessments. I will especially be concerned about an assessment that might be called that of "historical responsibility."

The role of moral judgment about past historical characters has been brought to eruptive boil in the area of my special concern, nineteenth- and early-twentiethcentury evolutionary thought in Germany. My recent research has been specifically focused on the work of someone whose name may not come trippingly to your lips, though it certainly does to mine: Ernst Haeckel. I will say more about Haeckel in a moment. He offers a test case for my thesis. Now I will simply point out that Haeckel, more than any other individual, was responsible for the warfare that broke out in the second half of the nineteenth century between evolutionary theorists and religious-minded thinkers, a warfare that continues unabated in the contemporary cultural struggle between advocates of intelligent design and those defending real biological science.

My motivation for considering the moral structure of narratives is encapsulated in the very brief title of a book that was published a few months ago. The title is simply From Darwin to Hitler.5 The pivotal character in this historical descent, according to the author, is Ernst Haeckel. He and Darwin are implicitly charged with historical responsibility for acts that occurred after they themselves died. I don't think judgments of this kind, those attributing moral responsibility across decades, are unwarranted in principle. The warrant lies in the grammar of historical narrative. Whether this particular condemnation of Darwin and Haeckel is appropriate is, of course, quite another matter.

Temporal Grammar of Narrative History

Let me focus, for a moment, on one feature of narrative history as a prelude to my argument and as an illustration of what I mean by "the grammar of narrative." This concerns the way time is represented in narrative histories. Time seeps into narratives in at least four different ways.⁶

First is what might be called the *time of events*. Embedded in the deep structure of narrative is the time during which events occur; that time flows equably on into the future, with each unit having equal duration. Narratives project events as occurring in a Newtonian time.

But the structuring of these events in a narrative exhibits what might be called *narrative time*, and this is a different sort of temporal modality. Consider, for instance, Harold Pinter's play *Betrayal*. The first scene is set temporally toward the end of the Newtonian sequence dramatized, with the next scene going in the right direction, occurring a few days later. But the third scene falls back to two years before, and the fourth to a year before that, with subsequent scenes taking us back finally to a period six years before the final days with which the play begins. The audience, how-

ever, never loses its temporal bearings or believes that time staggers along, weaving back and forth like an undergraduate leaving Jimmy's.

The historian might structure his or her narrative in a roughly comparable way, when one aspect of the history is related, but then the historian returns to an earlier time to follow out another thread of the story. Or the historian might have the narrative jump into the future to highlight the significance of some antecedent event. Again, when this is done with moderate dexterity, the reader is never confused about the Newtonian flow of events.

The time of narration is a less familiar device by which historians restructure real time as well as narrative time. Consider one of the several ways in which this can occur. This is through contraction or expansion of sentence duration. At the beginning of his history, Thucydides—a historian with whom most students at this university will be passing familiar—expends a few paragraphs on events occurring in the earliest period of Cretan hegemony through the time of the Trojan War to just before the outbreak of the war between Athens and Sparta, his main concern—it is a period of about two thousand years, all economically related in a few paragraphs. But Thucydides then devotes several hundred pages to the relatively brief twenty-year period of the war, at least that part of the war he recorded. Sentence duration is an indication of the importance the historian places on the events referred to. Sentence expansion or contraction, however, may have other sustaining causes.

Simply the pacing or rhythm of the historian's prose might be one. The great French scientist and historian Bernard de Fontenelle said that if the cadences of his sentences had demanded it, the Thirty Years' War would have turned out differently. In histories, centuries may be contracted into the space of a sentence, while a moment may be expanded through dozens of paragraphs.

A fourth temporal dimension of narrative is the time of narrative construction. This is a temporal feature especially relevant to considerations of the moral structure of histories. A narrative will be temporally layered by reason of its construction, displaying, as it were, both temporal depth and a temporal horizon. The temporal horizon is more pertinent for my concerns today, so let me speak of that. Thucydides wrote the first part of his history toward the end of the war that he chronicled, when the awful later events allowed him to pick out those earlier, antecedent events of explanatory relevance earlier events that would be epistemologically tinged with Athenian folly yet to come. Only the benefits of hindsight, for example, could have allowed him to put into the mouth of the Spartan messenger Melesippus, who was sent on a last desperate peace mission just before the first engagement of the war, the prophetic regret: "This day will be the beginning of great misfortunes to Hellas." By the horizontal ordering of time, the historian can describe events in ways that the actors participating in the events could not: Melesippus's prophecy was possible only because Thucydides had already lived through it. This temporal

perspective is crucial for the historian. Only from the vantage in the future can the historian pick out from an infinity of antecedent events just those deemed necessary for the explanation of the consequent events of interest.

Parallel to the temporal grammar of narratives, there is a causal structure. I won't detail all of its aspects, but simply focus on one feature, which might be called the causality of narrated events. Events in a narrative display a different causal logic from events in nature. When, in 433 BC, the Athenians of Thucydides' history interfered in an internal affair of Corinth, a Spartan ally, they could not have predicted that war would result—though they might have suspected; they certainly could not have predicted their ignominious defeat in the Sicilian campaign twenty years later. From inside the scene that Thucydides has set, the future appears open; all things are possible, or at least unforeseeable. Yet each of Thucydides' scenes moves inevitably and inexorably to that climax, namely the destruction of the fleet at Syracuse, the central event of his history. The historian, by reason of his or her temporal horizon, arranges antecedent events to make their outcome, the central event of interest, something the reader can expect—something, in the ideal case, that would be regarded as inevitable given the antecedent events—all the while keeping the actors in the dark until the last minute.

This is a view about the grammar of narration that some of my historian colleagues—some here today—would not share. Some of them try assiduously to avoid surface terms redolent of causality in their narratives. But I think this is to be unaware of the deeper grammar of narrative. The antecedent events are chosen by the historian to make, as far as he or she is able, the consequent events a causal inevitability. That's what it is to explain events historically.

This grammatical feature of narrative has bearing on any moral characterization of the actions of the individuals about whom the historian writes, in two ways. First, we do think that when we morally evaluate an action, we assume the individual could have chosen otherwise. There will thus be a tension between the actors represented as regarding the future as open, as full of possibilities, and the historian's knowledge that the future of the actors is really closed. They did what they did because of the narrated events, events carrying those individuals to their appointed destiny.

The second way the causality of narrated events bears on moral assessment has to do with the construction of the sequence of events and their causal connections. The historian will also be making a moral evaluation of the actions of characters—implicitly at least—and will arrange that sequence in which the character's actions are placed so as either morally to indict the individual, or morally to exculpate the individual, or, what is more frequently the case, to locate the individual's action in a morally neutral ground. I will say more about this feature of the grammar of narrative in a minute.

The Moral Structure of Narrative Grammar

I am now going to turn specifically to the moral structure of narrative grammar, and then illustrate some of the ways that structure characterizes Ernst Haeckel's story. If narratives have the structure I am attributing to them, then it would be well for historians to be reflectively conscious of this and to formulate their historical reconstructions in light of a set of principles that I believe should be operative. And in a moment I will suggest what those principles ought to be by which we morally judge the behavior of individuals who lived in the past and by which we assess their culpability for the future actions of others.

But let me first pose these questions: Do historians make normative judgments in their histories and should they? I will argue that not only should they, they must by reason of narrative grammar. At one level, it is obvious that historians, of necessity, do make normative judgments. Historical narratives are constructed on the basis of evidence: written documents, such as letters, diaries, and published works; artifacts, such as archeological findings; high-tech instruments, such as DNA analysis; and sometimes oral interviews. And historians attribute modes of behavior to actors on the basis of inference from evidence and in recognition of certain standards. Even when doing something apparently as innocuous as selecting a verb to characterize a proposition attributed to an actor, the historian must employ a norm or standard. For example, Thucydides could have had Melesippus think that disaster was in the offing, believe that disaster was in the offing, be convinced that disaster was in the offing, suspect that disaster was in the offing, assume that disaster was in the offing, or prophesy that disaster was in the offing. Whatever verb the historian selects, he or she will do so because the actor's behavior, as suggested by the evidence, has met a certain standard for such and such a modal description—say, being in a state of firm conviction as opposed to vague supposition. All descriptions require measurement against standards or norms—which is not to say that in a given instance, the standard and consequent description would be the most appropriate. The better the historian, the more appropriate the norms employed in rendering descriptions.

Virtually all the historian's choices of descriptive terms must be normative in this sense. But must some of these norms also be moral norms? I believe they must. The argument is fairly straightforward at least as straightforward as arguments of this sort ever get. Human history is about res gestae, things done by human beings, human actions. Actions are not mere behaviors, but behaviors that are intended and motivated. Inevitably these actions impinge on other individuals, immediate or remote. But intentional behavior impinging on others is precisely the moral context. The historian, therefore, in order to assign motives and intentions to individuals whose behavior affects others and to describe those motives and intentions adequately, must employ norms governing such intentional behavior, that is, behavior in the moral context.

Certainly the assessment of motives and intentions may yield only morally neutral descriptions. But even deciding that an intended behavior is morally neutral is, implicitly at least, also to judge it against standards of positive or negative moral valence, and to decide that it conforms to neither. Even a morally neutral assessment is a moral assessment. There is no claim here, of course, that such evaluations are generally self-consciously performed by historians. Mostly these evaluations occur quite reflexively, instead of reflectively. And they usually exist, not explicitly on the surface of the narrative, but in the interstices.

Let me offer a more concrete example of what I am arguing, from a historian whom no one would accuse of cheap moralizing—his moralizing is anything but cheap. His descriptions reveal a rainbow of shaded moral evaluations, which range subtly between the polar categories of shining virtue and darkling vice. Byron called him the Lord of Irony, and it is often through that trope that he makes his moral assessments. I am speaking, of course, of Edward Gibbon.

Let me read just a short passage from *The History of the Decline and Fall of the Roman Empire*, where Gibbon is describing what might have been the motives of Julian as his soldiers were clamoring for his elevation to emperor, even while Constantius was still on the throne. Julian protested that he could not take the diadem, even as he reluctantly and sadly accepted it. Gibbon writes:

The grief of Julian could proceed only from his innocence; but his innocence must appear extremely doubtful in the eyes of those who have learned to suspect the motives and the professions of princes. His lively and active mind was susceptible of the various impressions of hope and fear, of gratitude and revenge, of duty and of ambition, of the love of fame and of the fear of reproach. But it is impossible for us to ascertain the principles of action which might escape the observation, while they guided, or rather impelled, the steps of Julian himself. . . . He solemnly declares, in the presence of Jupiter, of the Sun, of Mars, of Minerva, and of all the other deities, that till the close of the evening which preceded his elevation he was utterly ignorant of the designs of the soldiers; and it may seem ungenerous to distrust the honour of a hero, and the truth of a philosopher. Yet the superstitious confidence that Constantius was the enemy, and that he himself was the favourite, of the gods, might prompt him to desire, to solicit, and even to hasten the auspicious moment of his reign, which was predestined to restore the ancient religion of mankind.7

In the cascade of rhetorical devices at play—zeugma, antithesis, irony—Gibbon explicitly refuses to attribute morally demeaning motives to Julian and, of course, at the same time implicitly does precisely that. Another element of judgment that Gibbon



Figure 1: Ernst Haeckel (seated), and Nikolai Miklucho-Maclay, 1867

evinces here is also an important feature of the moral grammar of historical narrative.

Narratives explain action by allowing us to understand character, in this case Julian's character. Gibbon, however, has led us to comprehend Julian's action, not only by cognitively suggesting what the motives of a prince might be, but also by shaping our emotional response to Julian's character and thus producing in us a feeling about Julian's actions. We morally evaluate individuals, partly at least, through feelings about them. The historian can orchestrate outrage—as some dealing with Haeckel have—by cutting quotations from an actor into certain vicious shapes. Or, like Gibbon, the historian can evoke feelings of moral disdain with little more than the magical mist of antithetic possibilities. As a result, readers will have, as it were, a sensible, even an olfactory understanding: the invisible air of the narrative will carry the sweet smell of virtue, the acrid stench of turpitude, or simply the bittersweet of irony. These feelings will become part of the delicate moral assessment rendered by the artistry of the historian.

This is just one small example of the way moral judgment exists in the interstitial spaces of a narrative, instead of lying right on the surface. But sometimes such judgments do lie closer to the skin of the narrative. Let me now focus precisely on a case of this and consider the principles that, I believe, should be operative in making moral

judgments of historical figures. This is in the instance of Ernst Haeckel.

Ernst Haeckel, Darwin's Champion in Germany

Haeckel was Darwin's great champion of evolutionary theory in Germany; he was a principal in the theory's introduction there, and a forceful defender of it from the mid-1860s until 1919, when he died.8 Haeckel's work on evolution reached far beyond the borders of the German lands. His popular accounts of evolutionary theory were translated into all the known and some of the unknown languages—at least unknown to the West-including Armenian, Chinese, Hebrew, Sanskrit, and Esperanto. More people learned of evolutionary theory through Haeckel's voluminous writings during this period than from any other source, including Darwin's own work.

Haeckel achieved many popular successes and, as well, produced more than twenty large, technical monographs on various aspects of systematic biology and evolutionary theory. (See figure 1.) In these works he described many hitherto unknown species, established the science of ecology, gave currency to the idea of the missing link (which one of his protégés actually found), and promulgated the biogenetic law that ontogeny recapitulates phylogeny. Most of the promising young biologists of the next generation came to study with him at Jena. His artistic ability was considerable: at the

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beginning of the twentieth century he influenced the movement in art called *Jugendstil* by his book *Kunstformen der Natur* (Art Forms of Nature). He became a greatly celebrated intellectual figure, often mentioned for a Nobel Prize.

A measure of his celebrity might be taken from this photo that the scandalously famous dancer Isadora Duncan sent Haeckel, of her admiring his photograph while at her writing table. (See figure 2.) Haeckel was also the scourge of religionists, smiting the preachers at every turn with the jawbone of evolutionary doctrine. He advocated what he called a "monistic religion" as a substitute for the traditional orthodoxies, a religion based on science.

But as a young student, trying to find a subject for his habilitation, Haeckel roamed along the coasts of Italy and Sicily in some despair. He thought of giving up biology for the life of a bohemian, spending his time in painting and poetizing with other German expatriates on the island of Ischia. But he felt that he had to accomplish something in biology so that he could become a professor and marry the woman he had fallen deeply in love with—his love letters sent back to his fiancée in Berlin are something delicious to read. He finally hit upon a topic: a systematic description of a littleknown creature that populated the seas, the one-celled protist called a radiolarian. (See figure 3.) It was while writing his habilitation on these creatures in 1861 that he happened to read Darwin's Origin of Species and became a convert. Haeckel produced a magnificent two-volume tome on the radiolaria, which he himself illustrated with extraordinary artistic and scientific acumen.9 Later in the century, his illustrations of radiolaria would influence such artistic designs as René Benet's gateway to the Paris World's Fair of 1900. (See figure 4.) But the radiolarian monograph's most immediate and significant effect was to secure Haeckel a professorship at Jena, thus allowing him to marry his beloved cousin, Anna Sethe.

On his thirtieth birthday, in 1863, Haeckel learned he had won a prestigious prize for his radiolarian work. And on that same day, a day that should have been one of great celebration, his wife of eighteen

I-15 Eurytidum, I-5 E cranoides, Ibl. (-7 E carnatum, Ibl.

Figure 3: Radiolaria from Haeckel's monograph, 1862

months tragically died. Haeckel was crushed. His family feared he might commit suicide. As he related to his parents, this heart-searing blow led him to reject all religion and replace it with something more substantial, something that promised a kind of progressive transcendence, namely Darwinian theory.

In the years following this upheaval, Haeckel became a zealous missionary for his new faith, and his own volatile and combative personality made him a crusader whose demeanor was in striking contrast to that of the modest and retiring English master whom he would serve. This outsized personality has continued to irritate historians of smaller imagination.

The Moral Indictment of Haeckel

In 1868, Haeckel produced a popular work on the new theory of evolution, entitled *Natürliche Schöpfungsgeschichte* (Natural History of Creation). ¹⁰ It would go through twelve editions up to the time of his death in 1919, and prove to be the most successful work of popular science in the nineteenth and early twentieth centuries. There are two features of that work that incited some of the fiercest intellectual battles of the last part of the nineteenth century and have led some historians and others to comparably fierce judgments of Haeckel's moral probity.

The first has to do with what became the cardinal principle of his evolutionary demonstrations, namely the biogenetic law that ontogeny recapitulates phylogeny. This principle holds that the embryo of a developing organism goes through the same morphological stages that the phylum went through in its evolutionary history: so, for example, the human embryo begins as a one-celled creature, just as we presume life began on this earth in a one-celled form; it then goes through a stage of gastrulation, and Haeckel believed that in the far distant past, our primitive ancestors plied the seas in that cup-like form; then the embryo takes on the morphology of an archaic fish, with gill-arches; then of a primate, then a



Figure 2: Isadora Duncan admiring Haeckel's photograph, 1904

specific human being.

The corollary to the law is that closely related creatures—vertebrates, for example—will go through early embryological stages that are quite similar to one another. (See figure 5.) Some of Haeckel's enemies charged that he had exaggerated the tail of the human embryo to make it more animal-like—a controversy that became known as *Die Schwanzfrage*. But the real deeper, more damaging, fight came with Haeckel's illustration of embryos at the very earliest stages of development. (See figure 6.) In the accompanying text, Haeckel

remarks: "If you compare the young embryos of the dog, chicken, and turtle, . . . you won't be in a position to perceive a difference." 11

One of the very first reviewers of Haeckel's book, an embryologist who became a sworn enemy, pointed out that one certainly wouldn't be able to distinguish these embryos, since Haeckel had used the same woodcut three times. He had, in the words of Ludwig Rütimeyer, the reviewer, committed a grave sin against science and the public's trust in science.

In the second edition of his book,

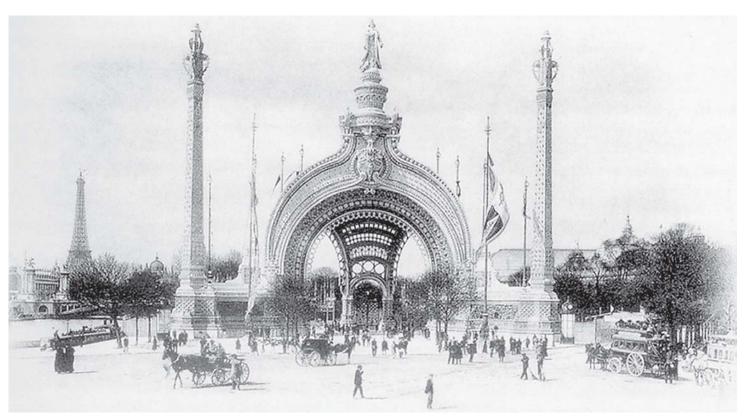


Figure 4: René Binet's gateway to the Paris World's Fair, 1900

Haeckel retained only one illustration of an embryo at the sandal stage and remarked in the text: "It might as well be the embryo of a dog, chicken or turtle, since you can't tell the difference." The damage, however, had been inflicted, and the indictment of fraud haunted Haeckel the rest of his life. The charge has been used by creationists in our own day as part of a brief, not only against Haeckel, but against evolutionary theory generally. Yet not only creationists but also several historians have employed it in their own moral evaluation of Haeckel and his science.

The second feature of Haeckel's work I would like to focus on really did not create a stir in his own time, but has become a central moral issue in ours. This has to do with the assumption of progress in evolution, an assumption which Haeckel certainly made. That assumption is forcefully displayed in the frontispiece of the first edition of his Natürliche *Schöpfungsgeschichte*. It is a depiction that did not survive past the second edition of the book. Up from the ancestors of the Catarrhine or narrow-nosed apes (including the orangutan, chimpanzee, and gorilla) have arisen the Papuan, the African, and the Australian, finally reaching the pinnacle of evolutionary development, the Indo-German group, represented by a figure modeled on the bust of a Greek.

More graphically, the species of humankind can be displayed in a tree diagram, with height on the vertical axis meant to represent more advanced types. (See figure 7.) Here the Caucasian group leads the pack (seen in the upper-right branch of the tree), arching above the descending orders of the "lower species"-all rooted in the Urmensch or Affenmensch, the ape-man. You will note that among the varieties of the Caucasian species, the Berbers and Jews were thought by Haeckel to be as advanced as the Germans and Southern Europeans. This classification should have had bearing on Haeckel's assignment by some historians to the ranks of the proto-Nazis.

Nazi Race-Hygienists and Their Use of Haeckelian Ideas

That several Nazi race-hygienists appealed to Haeckel to justify their views is clear. One pertinent example is Heinz Brücher's Ernst Haeckels Bluts- und Geistes-Erbe (Ernst Haeckel's Racial and Spiritual Legacy), published in 1936.¹² Not only did the author look to Haeckel's views of racial hierarchy as support for policies of National Socialism, he first gave full account of Haeckel's own impeccable pedigree. Included with the book was a five-foot chart laying out Haeckel's family tree. The aim of Brücher's racial-hygienic analysis was both to demonstrate a new method of showing the worth of an intellectual position and to use that method to justify Haeckel's own doctrine. That is, only the best blood flowed through Haeckel's veins; and, therefore, we may trust his ideas.

To make the favorable connection between Haeckel and Hitler, Brücher focused on a passage from Haeckel's *Natural History of Creation* that reads: "The difference in rationality between a Goethe, a Kant, a Lamarck, a Darwin and that of the lower natural men—a Veda, a Kaffer, an Australian and a Papuan is much greater than the

graduated difference between the rationality of these latter and that of the intelligent vertebrates, for instance, the higher apes." Brücher then cites a quite similar remark by Hitler in his Nuremberg speech of 1933. In this way he has made Haeckel historically responsible, at least in part, for Hitler's moral attitude.

The Judgment of "Historical Responsibility"

Brücher's attribution of moral responsibility to Haeckel is of a type commonly found in history, though the structure of these kinds of judgments usually goes unnoticed, lying as it does in the deep grammar of historiography. For example, historians will often credit, say, Copernicus, in the fifteenth century, with the courage to have broken through the rigidity of Ptolemaic assumption and, thus, by unshackling men's minds, to have initiated the scientific revolution of the sixteenth and seventeenth centuries. This, too, is a moral appraisal of historical responsibility, though, needless to say, Copernicus himself never uttered: "I now intend to free men's minds and initiate the scientific revolution." Yet, historians do assign him credit for that—moral credit for giving successors the ability to think differently and productively.

The epistemological and historical justification for this type of judgment is simply that the meaning and value of an idea or set of ideas can be realized only in actions that themselves may take some long time to develop—this signals the ineluctable teleological feature of history. While this type of judgment derives from the moral grammar of history, this doesn't mean, of course, that every particular judgment of this sort is justified.

The Reaction of Contemporary Historians

How has Haeckel gone down with contemporary historians? Not well. His ideas, mixed with his aggressive and combative personality, have lodged in the arteries feeding the critical faculties of many historians, causing sputtering convulsions. Daniel Gasman has argued that Haeckel's



Figure 5: Illustration of the biogenetic law, 1904

"social Darwinism became one of the most important formative causes for the rise of the Nazi movement." Stephen Jay Gould and many others concur that Haeckel's biological theories, supported, as Gould contends, by an "irrational mysticism" and a penchant for casting all into inevitable laws, "contributed to the rise of Nazism." And most recently, in a book published last summer, entitled *From Darwin to Hitler*, Richard Weikart traces the metastatic line his title describes, with the mid-center of that line encircling Ernst Haeckel.

Weikart offers his book as a disinterested historical analysis. In the objective fashion that bespeaks the scientific historian, he declares, "I will leave it to the reader to decide how straight or twisted the path is from Darwinism to Hitler after reading my account." Well, after reading his account, there can be little doubt not only of the direct causal path from Charles Darwin through Ernst Haeckel to Adolf Hitler but also of Darwin's and Haeckel's complicity in the atrocities committed by Hitler and his party. They bear historical responsibility.

It is disingenuous, I believe, for the author to pretend that most readers might come to their own conclusions despite the moral grammar of this history. Weikart, Gasman, Gould, and many other historians have created a historical narrative implicitly following—they could not do otherwise—the principles of narrative grammar: they have conceptualized an end point-Hitler's behavior regarded here as ethically horrendous—and have traced back causal lines to antecedent sources that might have given rise to those attitudes of Hitler, tainting those sources along the way. It is like a spreading oil slick carried on an indifferent current and polluting everything it touches.

Now one can cavil, which I certainly would, about many deficiencies in the performance of these historians. They have not, for instance, properly weighed the significance of the many other causal lines that led to Hitler's behavior—the social, political, cultural, and psychological strands that many other historians have, in fact, emphasized. And they thus have produced a mono-causal analysis which quite distorts the historical picture.

While responsibility assigned Darwin and Haeckel might be mitigated by a more realistic weighing of causal trajectories, some culpability might, nonetheless, remain. Yet is there any consideration that

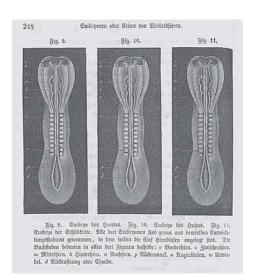


Figure 6: Very early embryos of dog, chicken, and turtle, 1868

might make us sever not the causal chain but the chain of moral responsibility? After all, Haeckel and, of course, Darwin had been dead decades before the rise of the Nazis. And as Monty Python might have put it, they're still dead.

Let me summarize at this juncture the different modal structures of moral judgment in historical narratives that I have tried to identify. First is the explicit appraisal of the historian, rendered when the historian overtly applies the language of moral assessment to some decision or action taken by a historical figure. This is both rare and runs against the grain of the cooler sensibilities of most historians, Lord Acton excepted.

Second is the appraisal of contemporaries (or later individuals). Part of the historian's task will often be to describe the judgments made on an actor by his or her own associates or subsequent individuals. In the case of Haeckel, there were those who condemned him of malfeasance, as well as colleagues who defended him against the charge. This mode of moral attribution may be for the historian evidentiary, but hardly decisive.

Third is the appraisal by causal connection. This occurs when the historian joins the decisions of an actor with consequential behavior of moral import. The behavior itself might be that of the actor or behavior displaced at some temporal remove from the actor's overt intentions— Hitler's actions, for example, as supposedly promoted by Haeckel's conceptions. This latter is what I have called "historical responsibility." The causal trajectory moves from past to future, but the moral responsibility flows along the causal tracks from future back to past. And it is the guiding hand of the historian that pushes this historical responsibility back along the causal rails to the past. It is here that the causal relationship can be mistaken for the moral relationship. I will, in just a moment, indicate how I believe the historian ought reflectively to modulate the flow of responsibility.

Finally, there is appraisal by aesthetic charge. This occurs when the historian through artful design evokes a feeling of positive or negative regard for the actor.

Principles of Moral Judgment

This brings me to the final part of my argument, namely the principles that ought to govern moral judgments of historical figures, especially for actions that were at some temporal distance from their own historical positions. I believe that the same general principles ought to govern our moral assessments of historical figures as govern assessments of our contemporaries, including ourselves. But much will depend on how those principles get specified when judging historically remote individuals.

First, there is the supreme principle of assessment: it might be the golden rule, the greatest happiness, altruism, or the categorical imperative. Likely in the cases I have in mind any of these presumptive first principles will yield a similar assessment of moral motives, since they express, I believe, the same moral core.

Secondly, there is the intention of the actor: what did he or she attempt to do? What action did the actor desire to ex-

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ecute—to be distinguished, of course, from mere accidental behavior?

Third is the motive for acting, the ground for that intention to act in a certain fashion. The motive will determine moral valence.

Finally, in assessing moral behavior, we must examine the beliefs of the individual actor and try to determine whether they were reasonable beliefs—and this is the special province of the historian. Let me give an example.

During the great Athenian plague, which Thucydides so dramatically describes, the Hippocratic physicians purged and bled the afflicted. This treatment actually hastened the deaths of their patients. But we certainly don't think the physicians malign or malfeasant, since they had a reasonable belief in the curative power of their practice. Their intention was to apply the best curative techniques. And their motive, we may presume, was altruistic, since they risked their own lives in caring for the sick. One should judge them, I believe, moral heroes, even though the consequence of their behavior was the injury and even the death of their patients.

The case of Ernst Haeckel is decidedly more problematic. In assessing the moral probity of his replication of woodcuts, the historian would have to examine his intentions and motivations. Did he claim his woodcuts were evidence of his biogenetic law? If so he must have been motivated to deceive, and we may be thus entitled to suspect his character. Or did he merely intend to provide an illustration of the law for a general audience, recognizing that indeed at an early stage the embryos cannot be distinguished? And thus at best, through a false economy, he committed a very minor infraction—one that doesn't rise to the level of fraud and moral condemnation.

Concerning Haeckel's conception of a racial hierarchy, the historian has the task of exploring two questions in particular: What did he intend to accomplish by his theory? And how reasonable were the beliefs he harbored about races?

To take the first question: Could Haeckel be conceived as intending to set in motion something like the crimes of the Nazis? Or, minimally, did he exhibit a careless disregard for the truth of his views about races, so that some malfeasant act could, at least, have been vaguely anticipated. It is in answering this question that the grammar of narrative must be carefully observed. The historian may lay down the scenes of his or her history so as to lead causally to a central event, such as Hitler's racial beliefs and their results in the Holocaust; but the historian needs to keep the actors in the dark, insofar as it is reasonable to do so, about those future consequences—in this case, to keep Haeckel oblivious to the future use of his work. It is easy for the historian to slip: since the historian knows the future outcome of the actor's decisions, it is easy to assume the actor also knew or could have anticipated those outcomes, at least in some vague way. More likely, though, the historian might simply fail to reflect on the crucial difference between his or her firm knowledge of the past and the actor's dim knowledge of the future.

In addition to carefully assessing intentions and motives, the historian must also consider the set of beliefs harbored by the

Taf.VIII. Berber Juden Romanen Germanen Arier Slaven Magharen Mbeffinier Türken Finnen Araber **Tataren** Japanesen' Semiten Indogermanen Chinesen Mongolen Raufafier Samojeden oder Tungufen Turaner Framer Grönländer Patagonier Estimos Südameritaner Meritaner Nordamerikaner Polarmenschen Amerikaner oder Rothhäute Arttifer Senegambier Sudanen Raffern Beschuanen Polynester oder Malahen Madagaffen Westpolynesier Mittelafritaner Malattaner Oftpolynefier Sundanefier oder Afroneger Meuseeländer Quaiqua8 Buidmanner Polynester oder Malahen Sottentotten Vapua= Alfuru= Polynefier Schmier= Polynesier Neuholländer Tasmanier menschen Papuas oder Alfurns ober Megritos Auftralneger Urmensch oder Affenmensch, Stammbaum ber Menschen=Arten oder =Raffen. entstanden aus Menschenaffen. ""

Figure 7: Descent tree of human species, 1868

actor. For example, was it reasonable for someone like Darwin or Haeckel to believe that evolutionary theory led to a hierarchy of species within a genus or races within a species? Or did they hold these ideas in reckless disregard for the truth? To assess reasonableness of belief in this instance, the historian would have to know what the scientific consensus happened to be in the second half of the nineteenth century. And in this case, a modestly diligent historian would discover that the community of evolutionary theorists—as well as other biologists—did understand the human races to stand in a hierarchy, just as did other animals, displaying a scale of traits, in the human case, especially those of intelligence, moral character, and beauty. Nineteenthcentury evolutionary theory implied that conclusion, and all of the available evidence supported it. We might recognize from our perspective certain social factors constraining the judgments of biologists; but it is safe to say they did not.

Then the historian can further ask, in this particular instance, what does categorizing peoples as branches of a racial hierarchy mean for the treatment of those so classified? This question does not allow for a universal answer, but will depend more particularly on the individual scientist. Weikart, for instance, indicts Darwin for acceding to belief in a racial hierarchy, but neglects to mention that Darwin did not think any action should be taken to reduce the welfare of those lower in the scale. Haeckel's own attitudes about how one should treat those lower in the hierarchy is less clear; but there is hardly room for moral condemnation, given the obscurity of his views about practical action.

Conclusion

It can only be a tendentious and dogmatically driven assessment that would condemn Darwin for the crimes of the Nazis. I will confess, though, that I have not yet made up my own mind about the historical

responsibility of Haeckel, with whom I have considerable sympathy.

A historian cannot write an extended account of the life of an individual without some measure of identification. If one is going to recover the past with anything like verisimilitude, one must, as R. G. Collingwood has maintained, relive the ideas of the past, which is not only to unearth long-interred intellectual structures but also to feel again the pulse of their vitality, to sense their urgency, to admire their originality, and thus to empathize with their authors. And yet one has to do all of this while retaining a reflective awareness of the moral structure in which actors conceived those ideas and perceived their import.

Note

- 1. John Acton, "On the Study of History," *Lectures on Modern History* (London: MacMillan and Co., 1906), pp. 5–26; quotation from p. 23.
- 2. Henry Lea, "Ethical Values in History," *American Historical Review* 9 (1904): 233-46; quotation from p. 234.
- 3. See Peter Novick, *That Noble Dream: The* "Objectivity Question" and the American Historical Profession (Cambridge: Cambridge University Press, 1988).
- 4. National Standards for History in the Schools (UCLA), Standard 5: Historical Issues. See http://nchs.ucla.edu/standards/thinking5-12-5.html.
- 5. Richard Weikart, From Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany (New York: Palgrave Macmillan, 2004).
- 6. I have discussed the temporal and causal structure of narrative history in "The Structure of Narrative Explanation in History and Biology," *History and Evolution*, eds. Matthew Nitecki and Doris Nitecki (Albany: State University of New York Press, 1992), pp. 19–53.
- 7. Edward Gibbon, *The History of the Decline and Fall of the Roman Empire*, 6 vols. (London: Strahan and Cadell, 1777–88), 2: 319–20.
- 8. See Robert J. Richards, "If This Be Heresy: Haeckel's Conversion to Darwinism," in Abigail Lusting, Robert J. Richards, and Michael Ruse (eds.), *Darwinian Heresies* (Cambridge: Cambridge University Press, 2004), pp. 101–30; and "The Aesthetic and Morphological Foundations of Ernst Haeckel's Evolutionary Project," in Mary Kemperink and Patrick Dassen (eds.), *The Many Faces of Evolution in Europe*, 1860–1914 (Amsterdam: Peeters, forthcoming 2005).
- 9. Ernst Haeckel, *Die Radiolarien*, 2 vols. (Berlin: Reimer, 1862).
- Ernst Haeckel, Natürliche Schöpfungsgeschichte (Berlin: Reimer, 1868).
 Ibid., p. 249.
- 12. Heinz Brücher, Ernst Haeckels Bluts- und Geistes-Erbe: Eine kulturbiologische Monographie (Munich: Lehmanns Verlag, 1936).
 13. Ibid., p. 249.
 14. Daniel Gasman, The Scientific Origins of

National Socialism (New York: Science History

Publications, 1971), p. xxii. See also Daniel

- Gasman, Haeckel's Monism and the Birth of Fascist Ideology (New York: Peter Lang, 1998). 15. Stephen Jay Gould, Ontogeny and Phylogeny (Cambridge: Harvard University Press, 1977),
- pp. 77–81. 16. Weikart, From Darwin to Hitler, p. x.

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Richards came to the University of Chi-

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Richards's research concentrates on the history and philosophy of biology. The author of numerous books, he is using a 2004 John Simon Guggenheim Memorial Foundation fellowship to complete "The Tragic Sense of Life: Ernest Haeckel and the Battle over Evolution in Germany." He has also received a grant from the National Science Foundation.

In The Romantic Conception of Life: Science and Philosophy in the Age of Goethe (2002), Richards examines the history of science during that era by looking at the many connections between art, philosophy, and science. The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin's Theory (1992) was translated into Spanish in 1998.

In 1988, the History of Science Society awarded Richards its Pfizer Prize for Darwin and the Emergence of Evolutionary Theories of Mind and Behavior (1987).

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