## Geoffrey Galt Harpham

## How do we know what we are? The science of language & human self-understanding

Where do we get our basic conceptions of ourselves as human beings? How do we know what we are? In one respect, this does not seem like the right question to ask, because we neither have nor need any fully articulated concepts of our humanity. Indeed, a determined obliviousness to such questions, punctuated perhaps by occasional abstracted musings - "What a piece of work is man!" or, "Who am I? Why am I here?" - seems entirely adequate for most purposes. We have a functional understanding, tacit but effective, of what a human being is, an understanding that snaps into focus when we talk about "the sanctity of human life," insist on "human rights," register shock at "crimes against humanity," or reflect that "nobody deserves to be treated like that." On occasion, this understanding acquires institutional force: The Rome Statute of the International Criminal Court defines crimes against humanity as "particularly odious offences in that they constitute a serious attack on human dignity or grave humiliation or a degradation of one or more human beings," and prohibits them on that basis. 1 We must know what a human being is, and what rights it has,

in order to frame such a definition and expect it to compel universal assent – which it largely has, with the exception of Israel and the United States, which first signed the document and then, in 2002, "unsigned" it, declaring themselves exempt from its restrictions. Presumably, these two nations demurred because they found the restrictions inconvenient, not because they had doubts about the implied account of the human.

One reason we never get beyond implication is that one of the most durable elements of our species self-understanding is the conviction that human beings transcend all positive or constraining descriptions: we are, we feel, various, inventive, and free to explore or extend our own capacities. Our nature includes an ability to exceed, negate, modify, or refuse nature as such; our particular instincts, unlike those of the octopus, the bluebird, the mosquito, or the lemur, lead us away from the hardwired repetitions and nonnegotiable demands of animal nature. But again – where do we get this implicit yet deeply held belief? How is a general atmosphere of suggestion formed, and what particles make it up? The argument I will pursue in this paper is that because of the ways in which it is conceptualized, articulated, and disseminated, academic discourse

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plays an influential role in forming our species self-conception.

All disciplines that deal with human beings place certain aspects of the human within their purview, on the presumption that these aspects represent core attributes of the human. The study of the arts inquires into human creative behavior; philosophy studies the human capacity for reflective thought and analysis; history considers the capacity for significant or meaningful action. But it is in the "human sciences" – psychology, economics, anthropology, sociology, and linguistics – that the articulation of the human becomes most explicit. To appropriate a term Michel Foucault uses often in The Order of Things, science proceeds by positing "models" that guide and inform the inquiry. In most of the human sciences, the operative model is an abstraction, a selective reduction. But because in the most venerable traditions of Western thought language has been considered the defining mark of the human, the discipline of linguistics employs a model that is not sectoral but holistic: it is the study of language that comes closest to registering our essential self-conception as distinct from other species. For without some prior understanding that language sets the human species apart, there would be no linguistic object that a scientist could study. Anything capable of bearing meaning – animal noises, gestures, thunderclaps, markings on a rock, the sound of the sea, well-formed sentences uttered by competent speakers – could be considered language. It is only when we posit human beings as the sole possessors of language that a bounded and integrated field comes into view: language is defined as the means by which humans and humans alone express and communicate their thoughts. The study of language begins with a model of the human

as the linguistic animal and ends by producing support for this model, which becomes a scientifically validated model of the human as such. In the course of controversies that are often technical in nature, an image of the human becomes visible.

 $oldsymbol{I}$ n a brief essay, I can only indicate how this large claim might be supported by relating a few suggestive incidents in which a theory of language, claiming the authority of science, contributed to an articulation of the concept of the human. The first incident centers on the figure of Darwin, the full dimensions of whose radicalism are still being explored. How did Darwin make the case for what Daniel Dennett has called his "dangerous idea" - or, rather, how did he make it persuasive, how did he win over readers who must have felt the full, unbuffered impact of a theory that, however based on careful observation and majestic in scale, was still blasphemous, humiliating, and counterintuitive? And how did he persuade himself that his wide but scattered observations of plant and animal forms could ground a new understanding of organic nature, including a radically new understanding of humanity?

People are persuaded of radically new ideas by degrees and often by indirection. Darwin began in just this manner by remarking, in a collection of notes he made during the *Beagle* voyage, that:

At least it appears all speculations of the origin of language. – must presume it originates slowly – if their speculations are utterly valueless – then argument fails – if they have, then language was progressive. –

We cannot doubt that language is an altering element, we see words invented – we see their origin in names of People. –

sound of words – argument of original formation – declension etc often show traces of origin. –  $^3$ 

At the time he wrote these words, Darwin little understood the significance that the origins of language would hold for his own work; indeed, the jottings quoted here are contained in a notebook he later titled "Old and Useless Notes." But he was beginning to assemble the elements of his theories of descent with modification and natural selection, and was keenly interested in solid information about origins of any kind.

Darwin undoubtedly thought that "we cannot doubt" the progressive nature of linguistic development because it had been so persuasively demonstrated by the "new philology" that had been developed since the end of the eighteenth century, when F. A. Wolf published his Prolegomena to Homer. Wolf had applied the comparative and historical methods developed for the "higher criticism" of the Bible to the texts of Homer, with the result that the Homeric texts were revealed to be not the work of an inspired solitary genius, but rather a compilation of many texts written at different times and assembled into a unity whose apparent integrity masked its own complex history. Wolf focused exclusively on Homer, but his ultimate goal, he said, was to articulate "the philosophy of the history of human nature in Greece."4 His successors extended his project in an attempt to discover the common root of Greek, Latin, and Sanskrit, which became known as Proto-Indo-European. In pursuit of this Ursprache, philologists in the early nineteenth century constructed elaborate language "families" and their genealogies, based on the principle of "progressive" development Darwin noted. Like Wolf, they were interested in human nature. If we could

get some sense of Proto-Indo-European, they thought, we would be standing in the dazzling presence not just of the first human language, but of the original – that is, the natural – forms of human thought and expression.

By the time he was finally ready to publish On the Origin of Species, in 1859, Darwin was confident that his convictions were supported not only by his own researches and those of other naturalists, but by the accumulating force of analogies that linked linguistic and species development.<sup>5</sup> These analogies come into play at key moments in Origin, as when Darwin notes that "a breed, like a dialect of a language, can hardly be said to have had a definite origin"; or when he begins an exposition of the idea that a natural system is "genealogical in its arrangement, like a pedigree," with the comment, "It may be worth while to illustrate this view of classification, by taking the case of languages."6 But the analogies between language and nature were far more important than these almost incidental comments suggest. Origin is concerned only with plants and animals, with but a single passage near the end indicating the real target, which would be revealed only twelve years later with the publication of The Descent of Man: "In the future, I see open fields for far more important researches.... Much light will be thrown on the origin of man and his history."7 One reason that the extravagantly cautious Darwin was able to move from plants and animals to the far riskier subject of human beings was that the defining human trait, language, had already been proven by philology to behave in "Darwinian" ways.

The impact of those few passages in *Origin* on philologists themselves can hardly be overstated. The fact that Darwin had enfolded language into an over-

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arching and compelling theory of nature represented an invaluable vote of confidence for a linguistic science still striving to establish its own scientific credentials. Moreover, they recognized that the theory of natural selection provided something philology badly needed and did not have: an explanation of why certain variations were preferred over others. The London-based, German-born philologist Max Müller immediately integrated Darwinian rhetoric into his own work. In the first series of his wildly popular Lectures on the Science of Language (1861), he described the scene of language as a "struggle for life ... which led to the destruction of the less strong, the less happy, the less fertile words, and ended in the triumph of *one*, as the recognised and proper name for every object in every language."8 In 1863, August Schleicher, a botanist and a philologist who pioneered in the construction of linguistic "trees," published a small tract with the title Die Darwinische Theorie und die Sprachwissenschaft (Darwinian theory and the science of language),<sup>9</sup> in which he argued that Darwin's theory and philology corroborated each other, with the latter providing direct empirical evidence for Darwin's ingenious suggestions and hypothetical scenarios. What Stephen G. Alter calls "the metaphoric mind of nineteenth-century science" produced a number of "striking conceptual transfers," of which the easy flow of analogy between biology and language was perhaps the most consequential.<sup>10</sup>

Analogies flowed particularly freely in the work of the German naturalist and philosopher Ernst Haeckel, one of those distinctively nineteenth-century titans who, like Müller, published in a wide range of fields. Three years before the appearance of *The Descent of Man*, Haeckel proposed a speculative theory

of human evolution from primates.<sup>11</sup> Many of the particulars of his account were controversial from the outset, in part because they lacked adequate scholarly support – he assured his readers, for example, that "the Caucasian, or Mediterranean man has from time immemorial been placed at the head of all races of men, as the most highly developed and perfect"12 – but Haeckel was able to buttress his broad claim about evolution by pointing out that it was entirely consistent with the findings of philology. The crucial evolutionary leap, Haeckel said, took place when "Man-like Apes" acquired "articulate human language" thereby becoming transformed into "Ape-like Man." As "the highest authorities in comparative philology" had demonstrated, the acquisition of language had an "ennobling and transforming influence upon the mental life of Man," constituting a "real and principal act of humanification."13 Writing six years later on *The Evolution of Man*, Haeckel again called attention to the "remarkable parallelism" between the evolution of languages and that of organic species: "Indeed it is hardly possible to find an analogy better adapted to throw a clear light on many obscure and difficult facts in the evolution of species, which is governed and directed by the same natural laws which guide the course of the evolution of language."14

Not all the highest authorities in comparative philology agreed. Müller, for example, was a thoroughly committed scientist, but he committed his science to such purposes as demonstrating the presence of the divine scattered throughout nature, revealing Christianity to be the unconscious goal of human history, and disproving Darwin's theory of human evolution. Under the guise of a scholarly debate about the origins of language, Müller and Darwin conduct-

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ed a heated discussion about the nature of man. Praising "the genius of Darwin," Müller argued that natural selection could never explain the emergence of language, much less the appearance on earth of human beings.<sup>15</sup> Language and humanity, he insisted, appeared at the same moment, when God endowed the "original pair" with the gift of speech. Proleptically rejecting the argument Darwin would make in *The Descent of* Man, Müller wrote in 1863, "It is not any accidental variety that survives and perpetuates itself," but, rather, "the individual which comes nearest to the original intention of its creator, or what is best calculated to accomplish the ends for which the type or species to which it belongs was called into being, that conquers in the great struggle for life."16

For Müller and others, the notion of a struggle for life, which was confirmed everywhere by observation and provided no serious challenge to theology or to the socio-economic status quo, was intellectually and ideologically acceptable; the idea of descent from primates, which would have meant surrendering man's place in God's chain of creation and the authority of revealed religion, was not. For Müller, Darwinism was both indispensable and inimical: it provided a powerful explanation of linguistic change, but did so at the cost of human distinctness. This was too high a price for Müller to consider paying. "Language is our Rubicon," he wrote in a memorable phrase, "and no brute will dare to cross it."17 For his part, Darwin seemed to take no notice of this resistance. He cited Müller, with whom he had by then been corresponding for many years, in support of his own theory in *The Descent of Man*, reaching what Alter calls an "analogic zenith" in his claim that "the survival or preservation of certain favoured words in the

struggle for existence is natural selection."<sup>18</sup>

Both Müller and Darwin were altered by their exchanges. From the moment Darwin accepted the premise that linguistic change was a scientifically proven analogy for processes of natural selection in the organic world, he was set on the course that would eventually culminate in the argument of *The Descent* of Man: that human evolution was governed by the same principles as those observable in plants and animals. If Darwin was encouraged by Müller to develop his scientific thinking in the most radical and controversial way, Müller responded to the challenge of Darwin by retreating to fundamental and unscientific principles. When Müller accepted natural selection (which he rechristened natural elimination) as the explanation for why some linguistic forms endured and others did not, he committed himself to a naturalistic understanding of language, the full implications of which he would never endorse because they threatened his model of the human as the linguistic lord of creation.

At the level of the model, the disagreements between Darwin and Müller ran deep, but they shared a fundamental conviction: that the most revealing approach to the question of the human was through an inquiry into origins. But by the end of the nineteenth century, thinkers were turning away from deep time as the source of ultimate explanations, and were looking instead to systems. One of the clearest instances of the new emphasis is the work of the Swiss linguist Ferdinand de Saussure, who began his career as a precocious comparative philologist, but ended it as a prophetic postmodernist – helping, in between, to found modernism. Saussure argued that language should be studied

as a "synchronic" system of communication established and enforced by "the collective mind of the linguistic community."19 In his 1906 – 1911 series of lectures, which were posthumously assembled, edited, and published as Course in General Linguistics, Saussure sought to turn the attention of linguistics away from the philological emphasis on linguistic genealogy and toward what he called language alone. The new object of attention for linguists should, he insisted, be the "sign," a sound fused on an "arbitrary" basis with a concept, and the conventional system of signs that made communication possible. One way to describe Saussure's work is to say that he sought to make linguistics a science by drawing a bright line between language and the human beings who use it.

Another way to describe it, however, is to say that he made humanity available to scientific study by making language into an object. As a scientist, Saussure was indifferent to nineteenth-century forms of humanism, but he was wholly invested in the concept of human society. The task he set for his new science of "semiology" was to study "the role of signs as part of social life," a project that fit neatly into a context in which thinkers such as Freud, Durkheim, Gabriel Tarde, George Dumas, and others were formulating new understandings of the human condition that emphasized communally determined conventions and values. The reception of Saussure's work undoubtedly benefited from this convergence, but his extraordinary influence on subsequent thinking about the human owed some of its force and durability to the fact that he represented his work as a science of language.

What is man, according to Saussure? What model of humanity informs his work? The model is never explicit, of

course, but one clue may be found in the famous diagram of the "speaking circuit," which consists of line drawings of two virtually identical male heads facing each other, with dotted lines representing the career of a thought originating in the brain of A, passing through A's mouth, where it is conjoined with a sound, and swooping in the line of a hammock toward the brain of B, who receives the sign, understands it, forms his own thought, and replies by the same route. Saussurean man is not defined by his origins, race, class, gender, age, religion, marital status, ethnicity, nationality, body type, or any other marker of individual or social identity. Indeed, he is scarcely defined at all, for his thoughts and utterances conform strictly to social conventions. In Saussure's linguistics, the individual is accident rather than essence, a mere node in the system, and conventional by communicative necessity. As Saussure says, the masses (la masse sociale) are not consulted in the determination of signs, which are "chosen by the language." Saussure seems to approve of this arrangement in the same way that a conservative political thinker might approve of tradition and custom; his work gives little evidence of any desire to disturb what he calls "the normal, regular existence of a language already established," or to disrupt - in the name, for example, of "creativity" or "freedom" - the "collective inertia" of the communicational consensus.<sup>20</sup>

Outside of linguistics, Saussure's work found an immediate audience in those engaged in the study of society. Marcel Mauss was one of the first to cite Saussure as a predecessor in the study of systems of exchange that involved not only signs but symbols, classifications, and other kinds of representations. Claude Lévi-Strauss cited Mauss's influential work on kinship and "the gift" in his

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own equally influential work on mythology and "the savage mind," noting that "the analogy with language, so strongly asserted by Mauss, could enable us to discover the precise rules by which, in any type of society, cycles of reciprocity are formed whose automatic laws are henceforth known." With such powerful theorists advocating the linguistic analogy, advanced thinking in the fields of sociology and anthropology was for several decades anchored in linguistics.

The influence of Saussure on the forms of structuralism and poststructuralism embraced by many disciplines around the middle of the twentieth century was vast and diffuse. That influence was especially marked in what came in the United States to be known as "critical theory," whose heyday was from the mid-1960s to approximately 1990. As one thinker said of the ethos of that time, "the paradigm of language ... replaced the paradigm of consciousness."22 The presiding geniuses of this genius-driven movement objected on theoretical, political, and even moral grounds to an older humanism, enlisting the elusive and enigmatic Saussure – the genius behind the geniuses – in support of their various positions and values, all of which, it was claimed, could be extracted from the *Course*. Thus Jacques Lacan, in proposing a revolutionary shift from Freudian psychoanalysis to a new, scientific understanding of the subject, could point to Saussure as the man responsible for enabling language, and therefore the subject, to "[attain] the status of an object of scientific investigation"; Louis Althusser could subsequently embrace Lacan as the thinker responsible for making psychoanalysis into a science by assimilating it to Saussurean linguistics; Paul de Man could say that advanced literary theory involved nothing other than the application of Saussure to literary texts; Jacques Derrida could base his attack on Western "logocentrism" on his reading of Saussure; Stuart Hall could refer to the long-dead Saussure as the source of "recent work on the nature of language" that supported his rewriting of Marxism; and Ernesto Laclau and Chantal Mouffe could identify Saussure as the fountainhead of "contemporary" scientific authority on language, which proved, they contended, the "relational" character of all personal and social identity.<sup>23</sup>

The Saussure who emerged from this orgy of appropriation was not merely a scientist but a savant, a great philosopher of the modern and postmodern human condition. He achieved this status not despite, but because of the fact that his exclusive focus was on language. He began with a conviction about what constituted real science in the field of linguistics, developed this conviction with single-minded purpose and no larger aims, and was adopted by those seeking a broader truth of humanity because they felt that language revealed the truth about the human.

Ironically, by the time Saussure achieved this apex of influence, he had been completely superseded in his own field, and was accorded even less respect by linguists than Freud by his heirs and descendants in psychoanalysis. Post-Saussurean linguists approached their task from another point of view altogether, guided by a completely different model of the human. In the work of Noam Chomsky, this model comes very close to direct and explicit articulation. Rejecting virtually every one of Saussure's premises about the object of linguistic research, Chomsky sought to redirect linguistics away from signs, society, communication, arbitrary

conventions, and obedience to rules, and toward the human brain. The community of language-oriented theorists that appropriated Saussure has ignored Chomsky not because they doubt the adequacy of his science (which they do not pretend to understand), nor even because they disagree with his politics (in many cases, they do not). They ignore Chomsky because his model of humanity conflicts with theirs, in that it is based on unconscious biological necessity centered in the individual rather than in the unconstrained invention of the linguistic community.

According to Chomsky, human beings are endowed with a cognitive apparatus capable of learning and using language, a capacity for understanding and generating an infinite number of grammatically well-formed, but never-beforeheard, sentences. This capacity for "rulegoverned creativity," which is universal by biological necessity, is, Chomsky maintains, the key to human singularity; and linguistics, considered as a biology-based branch of cognitive science, is the key to a general and authoritative science of the human. This science begins with a study of the rules of syntax, posits a theory of how those rules arose and took root, infers from that theory the innate structure of the brain, and extrapolates from that structure a positive description of human nature. Since his high argument is grounded in biology, it would seem that Chomsky ought to embrace a Darwinian, that is, naturalistic account of human evolution. He has instead raised a series of objections to thinking of natural selection as the means by which language developed, and to biological reductionism and naturalism more generally.<sup>24</sup> His resistance to Darwin has created a tension in his theory that after half a century remains unresolved.

Various reasons for Chomsky's obdurate and, to some, mystifying resistance to a Darwinian account of the human capacity for language have been proposed, but most of them direct attention to the wrong place, to some argument Chomsky has made about evolution, epistemology, or genetics. The real driver of Chomsky's Darwin-skepticism is not to be found in his science itself, but in another compartment of his thinking where the model of the human that informs his science resides. That compartment is not scientific at all, but political and moral. Chomsky has situated his work in a philosophical tradition that includes Descartes, Rousseau, Kant, von Humboldt, Herder, and Schelling.<sup>25</sup> This Enlightenment tradition supports, in his account, a linked series of arguments: that the essence of humanity is freedom; that language is the faculty that defines mankind by placing humans beyond the limits of mere physical explanation; that beasts are incapable of freedom because they do not possess language; and that an understanding of the creative principle in language should guide us in constructing a rational social order in which human beings could enjoy full scope for expressing their inherent nature.<sup>26</sup> Chomsky may have scientific reasons for believing that natural selection cannot explain the origin of language; but one cannot ignore the possibility that Darwin does not make the list of approved thinkers because Darwin's understanding of organic life as a ceaseless struggle resulting in the flourishing of the fittest species and the extinction of "less improved forms" does not support the values of creativity and freedom Chomsky wants to promote.

One of the foundational arguments in the tradition of thinking in which Chomsky places himself is voiced by

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Rousseau, who distinguishes between humans and animals on the grounds that a beast is (in Chomsky's paraphrase) "merely an ingenious machine, commanded by natural law," unlike man, whose "freedom and his consciousness of this freedom distinguish him from the beast-machine."27 This concept of the "beast-machine" has particular force in Chomsky because it indicates both the non-human and. more surprisingly, the human. Human superiority is based on language, which gives people – all people, regardless of their talents, aptitudes, or merits – the capacity for free and open-ended creativity. Unlike other kinds of creativity, the generation of an endless string of grammatical sentences does not require will, intention, or even awareness; it operates automatically because it is produced by what Chomsky calls a "device" in the human brain that is specialized to acquire or "grow" a language, and that operates like a "machine." 28 For Chomsky, the linguistic capacity is part of our biology, a "module" in the brain; but the operation of that capacity is mechanical and strictly unconscious. Human beings are neither beasts nor machines because, unlike them, they are both. If we could unpack the complex, even contorted thought behind the phrase "beast-machine," we would be close to articulating the model behind Chomsky's linguistics. Beasts and machines, we might say, are both condemned to mindless repetition – this is why we can conceive of a "beast-machine" - but the combination of an animalian responsiveness to the environment and a rule-governed "device" in the brain that operates independently of any animal reaction or response produces a distinctively human being that is both free and endlessly creative.

Attempting to deflect some of the implications of Darwinian naturalism, Chomsky has actually proposed an alternative account of the genesis of language that does not exactly contradict Darwin, but still preserves human singularity. Humans, he has suggested, share with primates a primitive conceptual system, but the capacity to conceive of a "discrete infinity" – the most obvious example being the infinite number of natural numbers – is exclusively human. This capacity, Chomsky speculates, is the result of a fortuitous event in the distant past, when the conceptual system was crossed with the computational capacity through a "mutation...perhaps for reasons that have to do with the biology of cells, to be explained in terms of properties of physical mechanisms, now unknown," with the result being an ability unique to the species to generate an infinite number of new sentences.<sup>29</sup> With the acquisition of this remarkable ability, we suddenly became a "totally new organism," living in "a total new world."30 Natural selection played no role in producing this mysterious fluke, a one-time accident punctuating the slow evolutionary grind. Once it happened, however, the accident became frozen in the species, which - also suddenly – acquired a distinctive nature, with its own capacities, norms, and rights. The process may have been merely biological, Chomsky grants, but it produced a species that is "metaphysically distinct from non-humans."31

Chomsky's commitment to a metaphysical difference is not, perhaps, what one might expect from a scientist; but even more surprising in this context is his statement that we remain, at this late date, encumbered by a not-fully-developed mental apparatus, and that more work is required in order for us to reach our full potential, which will be attained

when "animal nature is transcended and human nature can truly flourish." <sup>32</sup>

By claiming that the language faculty is part of our genetic endowment but refusing to make his case in Darwinian terms, Chomsky has created a problem in his theory that others have tried solve, a dispute that others have tried to mediate, and a void that others have rushed to fill. Most of those making these efforts are unaware of, or simply do not credit, the philosophically and ethically determined model that has created the difficulty, and so proceed as if the issue were scientific rather than philosophical, political, or moral. In *The Language Instinct*, for example, Steven Pinker provides a cheerful and ingenious account of how language might have evolved from nonlanguage and installed itself in the human brain as an instinct.<sup>33</sup> Pinker represents himself as an ally, providing evidence for Chomsky's argument that Chomsky himself has, for no reason Pinker can divine, declined to provide. But Pinker has in fact described a language faculty that differs significantly from Chomsky's. Pinker quietly substitutes the evolutionarily advantageous capacity for information sharing for Chomsky's rule-governed creativity, he mentions (and conceives of) no metaphysical difference between humans and animals, and he does not appear to entertain any post-bestial aspirations for the human species. He has, in short, gutted Chomsky's account of its vitals, and has done so with a clean conscience because he has failed to grasp that the real issue is not in the science, but in the model informing the science. Indeed, if he had fully grasped the significance of the model underlying Chomsky's work, Pinker might not have cast his work as a friendly amendment, for he himself seems more interested in and impressed by an altogether different model, one

based on the hard invariants of human nature rather than in the human capacity for open-ended creativity.<sup>34</sup>

Nor is Pinker the only one to get Chomsky wrong by ignoring or underestimating the antipathy between Darwin and Chomsky. In his widely noticed book, Moral Minds: How Nature Designed Our Universal Sense of Right and Wrong (2006), Marc D. Hauser argues that human beings are innately endowed with "a universal moral grammar, a toolkit for building specific moral programs" that is, he says, precisely analogous to the unconscious mechanical workings of the grammar-based language faculty on which Chomsky's work is based.<sup>35</sup> The book is built on this analogy: he announces in his second sentence that "the blind hand of Darwinian selection" has contributed to producing a species uniquely capable of moral judgment, and in his third that his entire argument is modeled on that of Chomsky.<sup>36</sup> In essence, Hauser has detached Chomsky's linguistics from its Enlightenment model, and has stapled it to the Darwinian model Chomsky has always resisted. It is an open question whether Hauser is endorsing Chomsky's ideas or Darwin's, for while he gives Chomsky naming rights, as it were, to the supporting evidence, the fundamental model of humanity in *Moral Minds* is the one articulated not in Aspects of Syntax, but in The Descent of Man.

At the beginning of this essay, I suggested that the science of language was such a productive source of human self-understanding because language itself was widely considered to be the definitive human trait. But it is now clear that another factor is at work as well. The study of language requires an implied model of humanity, but this model does not merely set the parameters of inqui-

ry; to an unusual degree, the model determines the object of study itself. In pursuit of the language spoken by the original pair, Müller focused on etymology and other historical features of language; seeking to understand the essence of mankind as a communicating species, Saussure concentrated on the system of signs; and as a way of grasping human nature as a structure of freedom and creativity, Chomsky prioritized syntax. All were confident that their chosen emphases represented the core of language, with everything else being contingent or secondary.

What, then, is language? Chomsky voices a suspicion held by many of the most serious students of the subject when he explains his preference for the term syntax over language by say-

ing, "There is nothing in the real world corresponding to language. In fact it could very well turn out that there is no intelligible notion of language... the notion [of] language might turn out just to be a useless notion."37 This remarkable formulation actually requires a small revision. There may be nothing in the world designated by the term *language*, but the notion, idea, or concept of language is, in fact, extraordinarily useful, for it enables linguistic scientists not only to lay claim to a subject of immense historical importance and philosophical resonance, but also to serve the larger purposes of humanity by enabling the idea of the human to come, or almost come, to countenance in the coded but accessible form of rational discourse about an object.

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## **ENDNOTES**

- <sup>1</sup> Rome Statute Explanatory Memorandum, International Criminal Court, vol. 1, 360. As of October 2008, 108 countries are party to the Rome Statute, including nearly all of Europe and South America, and roughly half the countries in Africa. Forty more states have signed but not ratified the treaty.
- <sup>2</sup> Daniel Dennett, *Darwin's Dangerous Idea*: *Evolution and the Meanings of Life* (New York: Simon & Schuster, 1995).
- <sup>3</sup> "Early Writings of Charles Darwin," in *Darwin on Man: A Psychological Study of Scientific Creativity*, Together with Darwin's Early and Unpublished Notebooks, ed. H. E. Gruber, transcribed and annotated by Paul H. Barrett, with a foreword by Jean Piaget (London: Wildwood House, 1974), 383.
- <sup>4</sup> F. A. Wolf, *Prolegomena to Homer*, 1795, trans., with introduction and notes, by Anthony Grafton, Glenn W. Most, and James E. G. Zetzel (Princeton: Princeton University Press, 1985), 233; emphasis in original.
- <sup>5</sup> An unpublished manuscript indicates that as early as 1844 Darwin implicitly paralleled the Tree of Life to the family tree of language; cited in Stephen G. Alter, *Darwinism and the Linguistic Image: Language, Race, and Natural Theology in the Nineteenth Century* (Baltimore: Johns Hopkins University Press, 1999), 20. Others were also urging Darwin to think of linguistic analogies. His cousin Hensleigh Wedgwood wrote to him in 1857, saying, "I have often thought that there is much resemblance between language & geology in another way. We all consider English a very mixed language because we can trace the elements into Latin, German &c. but I see much the same sort of thing in Latin itself & I believe that if we were but acquainted with the previous state of things we should find all languages made up of the debris of former tongues just as every geological formation is the grinding down of former continents"; "To Darwin from Hensleigh Wedgwood, before September 29, 1857," in *The Correspondence of Charles Darwin*, vol. 6, 1856 1857,

- ed. Frederick Burckhardt and Sydney Smith (Cambridge: Cambridge University Press, 1990), 458.
- <sup>6</sup> Charles Darwin, *The Origin of Species* (New York: P. F. Collier and Son, 1909), 53, 459.
- <sup>7</sup> Ibid., 527.
- <sup>8</sup> Max Müller, *Lectures on the Science of Language*, 1st series (London: Green, Longman, and Roberts, 1861), 368; emphases in original.
- <sup>9</sup> August Schleicher, *Die Darwinsche Theorie und die Sprachwissenschaft* (Weimar: Böhlau, 1863). On Schleicher, see Liba Taub, "Evolutionary Ideas and Empirical Methods: The Analogy between Language and Species in Works by Lyell and Schleicher," *British Journal for the History of Science* 26 (1993): 171 193; Alter, *Darwinism and the Linguistic Image*, 73 79; and Robert J. Richards, *The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin's Theory* (Chicago: University of Chicago Press, 1992).
- <sup>10</sup> Alter, *Darwinism and the Linguistic Image*, 7.
- <sup>11</sup> Ernst Haeckel, *The History of Creation*, 2 vols., trans. Sir E. Ray Lankester (1868; New York: Appleton, 1925).
- <sup>12</sup> Ibid., vol. II, 429.
- <sup>13</sup> Ibid., 398, 408, 410.
- <sup>14</sup> Ernst Haeckel, *The Evolution of Man*, vol. II (1874; New York: D. Appleton and Company, 1896), 20.
- <sup>15</sup> Max Müller, Lectures on the Science of Language Delivered at the Royal Institute of Great Britain in February, March, April, and May 1863, 2nd series (1864; New York: Charles Scribner's Sons, 1890), 322.
- <sup>16</sup> Ibid., 323.
- <sup>17</sup> Ibid., 340.
- <sup>18</sup> Charles Darwin, *The Descent of Man, and Selection in Relation to Sex* (London: John Murray, 1871), 60 61; Alter, *Darwinism and the Linguistic Image*, 51.
- <sup>19</sup> Ferdinand de Saussure, *Course in General Linguistics*, ed. Charles Bally and Albert Sechehaye, in collaboration with Albert Riedlinger, trans. and annotated by Roy Harris (LaSalle, Ill.: Open Court Press, 1997), 5.
- $^{20}$  Ibid., 14, 72 73. On the ways in which Saussure's views of man and society are inscribed in his linguistics, see Geoffrey Galt Harpham, *Language Alone*: The Critical Fetish of Modernity (New York: Routledge, 2002), 16 34.
- <sup>21</sup> Claude Lévi-Strauss, Introduction to the Work of Marcel Mauss, trans. Felicity Baker (1950; London: Routledge, 1987), 43.
- <sup>22</sup> Seyla Benhabib, *Situating the Self: Gender, Community, and Postmodernism in Contemporary Ethics* (New York: Routledge, 1992), 208.
- <sup>23</sup> Jacques Lacan, "The agency of the letter in the unconscious or reason since Freud," *Ecrits: A Selection*, trans. Alan Sheridan (New York: W.W. Norton & Co., 1977), 146 175, 148; Paul de Man, *The Resistance to Theory*, vol. 33, *Theory and History of Literature* (Minneapolis: University of Minnesota Press, 1986), 8; Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1976), 30 73; Stuart Hall, "The Problem of Ideology Marxism without Guarantees," *Journal of Communication Inquiry* 10 (2) (1986): 28 43, 36; Ernesto Laclau and Chantal Mouffe, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics* (London: Verso, 1985).
- <sup>24</sup> For a sample of Chomsky's comments, see *Language and Mind* (New York: Harcourt Brace Jovanovich, 1972), 97 98; *Language and Problems of Knowledge: The Managua Lectures* (Cambridge, Mass.: MIT Press, 1988), 168 170; and *Nature and Language* (Cam-

bridge: Cambridge University Press, 2002), 46 – 49. Among the numerous responses to Chomsky, see especially Dennett, "Chomsky Contra Darwin: Four Episodes," in *Darwin's Dangerous Idea*, 384 – 392.

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- <sup>25</sup> Chomsky has stated repeatedly that his work in linguistics is entirely independent of his political interventions. But the connection is forged quite directly through his engagement with his chosen philosophical tradition. In one revealing passage, at 134, in a long chapter called "Some General Features of Language" in *Reflections on Language* (New York: Random House, 1975), he modulates without a break from a highly technical discussion of what he calls the "extended standard theory" of transformational grammar, through a discussion that touches on Descartes, Hume, Kant, and Humboldt, and concludes with a stirring defense of the belief that "human needs and capacities will find their fullest expression in a society of free and creative producers, working in a system of free association."
- <sup>26</sup> For Chomsky's articulations of this tradition, see Noam Chomsky, "Language and Freedom," in *The Chomsky Reader*, ed. James Peck (New York: Praeger, 1987), 139 155; and Noam Chomsky, *Cartesian Linguistics: A Chapter in the History of Rationalist Thought* (Lanham, Md.: University Press of America, 1966).
- <sup>27</sup> Chomsky, "Language and Freedom," in *The Chomsky Reader*, ed. Peck, 145.
- <sup>28</sup> Noam Chomsky, *Syntactic Structures* (The Hague: Mouton, 1957), 18. In *The Language Machine* (London: Duckworth, 1987), Roy Harris accuses Chomsky of being among those who have perpetuated the astonishingly durable but fundamentally misleading metaphor of a "language machine."
- <sup>29</sup> Chomsky, *Language and the Problems of Knowledge*, 170.
- <sup>30</sup> Noam Chomsky, *Noam Chomsky on the Generative Enterprise: A Discussion with Riny Hurbregts and Henk van Riemsdijk* (Dordrecht: Foris, 1982), 21 22.
- <sup>31</sup> Noam Chomsky, *Language and Responsibility*, based on conversations with Mitsou Ronat, trans. John Viertel (New York: Pantheon Books, 1979), 92.
- 32 Chomsky, Reflections on Language, 134.
- <sup>33</sup> Steven Pinker, *The Language Instinct* (New York: HarperPerennial, 1995).
- 34 See Steven Pinker, *The Blank Slate: The Modern Denial of Human Nature* (New York: Viking, 2002).
- 35 Marc D. Hauser, *Moral Minds: How Nature Designed Our Universal Sense of Right and Wrong* (New York: Ecco, 2006), xviii. See pages 37 55 for Hauser's elaboration of the "analogy" or "parallel" between language and the moral sense suggested by Chomsky and, in slightly different terms, by John Rawls. For an argument that the discrepancy between Chomsky and Darwin is based on a misunderstanding, and can easily be overcome, see William H. Calvin and Derek Bickerton, *Lingua ex Machina: Reconciling Darwin and Chomsky with the Human Brain* (Cambridge, Mass.: MIT Press, 2000).
- <sup>36</sup> Hauser, Moral Minds, xvii.
- <sup>37</sup> Chomsky, *Noam Chomsky on the Generative Enterprise*, 107.