CARTESIAN AUTHORITY: AN INVESTIGATION OF NOAM CHOMSKY’S RHETORIC

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By

Joseph G. Stafford, B.A.

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This thesis explores the rhetoric of Noam Chomsky’s book *Cartesian Linguistics*. In particular, the thesis tries to offer both a description and an analysis of Chomsky’s appeal to the authority of René Descartes. It argues that the appeal operates through the external authority of Descartes and through Chomsky’s internal construction of a rhetorical ethos that is indicative of the intelligent and ethical scientist.
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Introduction

1.0 The Critical Response to *Cartesian Linguistics*

To the untrained eye, *Cartesian Linguistics* has a rather uncontroversial argument – in particular, it asserts that valuable ideas can be found in the work of past scholarship. In the opening pages of the book, the author Noam Chomsky suggests, for instance, that he is drawing “parallels” between the past and present of language studies.¹ According to Chomsky, the past is represented by the “theories” of “language structure,” that originated in the seventeenth century with figures like René Descartes and Géraud de Cordemoy.² Further, he explains that these theories had been embraced by intellectuals in subsequent centuries, most notably by Wilhelm Von Humboldt in the eighteenth. Chomsky finds, however, that this past has been either unacknowledged or considered insignificant by late nineteenth and early twentieth-century scholars – an outcome that he regards as unfortunate. Despite the existence of these ignorant and sometimes negative sentiments, Chomsky comes to reveal that his book is a part of a coincidental “reawakening” or a “rediscovery” of prior “concerns.”³ In other words, the generative linguists – under Chomsky’s stewardship, of course – had started to think like their “classical” predecessors, without even being aware of it.⁴ Thus, one of the intentions of *Cartesian Linguistics* is to make the connection between the past and present more explicit. In so

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³ Noam Chomsky, *Cartesian Linguistics*, 57. I use the term coincidental here to highlight Chomsky’s own opinion that the parallels between his work and that of the Cartesians was a chance occurrence – or, in his words, an “independent development” (98).
doing, Chomsky says that other linguists will be “rewarded,” since they will be provided with underexplored ideas that can eventually be “exploited” in contemporary studies of language.\textsuperscript{5}

Generally speaking, Chomsky suggests that the present researcher discovers four valuable ideas in the classical (or the Cartesian) theories of language. Chomsky, hence, organizes his book into four chapters, with each of those ideas receiving a single chapter dedicated to their documentation across time and across different thinkers. In the first chapter, for instance, Chomsky explains that the Cartesians understood a certain “fact” about the use of human language, namely, that it has a “creative” dimension. The term \textit{creative}, according to Chomsky, refers to the following set of truths: that when humans speak, their utterances are not determined by either “external stimuli” or the “internal states” of the body and, further, that humans often and readily produce “novel” utterances and yet always make “coherent” contributions to their various discursive situations.\textsuperscript{6} For Chomsky, the identification of this fact is valuable because it tells the modern researcher that human language cannot be compared to the systems of “animal communication,” since those systems are “purely functional” and “stimulus-bound.”\textsuperscript{7} In the second chapter, Chomsky unpacks Cartesian theories of grammar. He explains that some of the Cartesians – in this case, the Port-Royalists – developed a syntactic model through an analysis of mental operations. The model consisted of three theoretical entities: deep structures, surface structures, and transformations. The explication of the model seems to be valuable, in part, because it shows that a Cartesian approach to grammar can account for the facts of language, such as its creative aspect. In chapter three, Chomsky goes on to distinguish the Cartesians who

\textsuperscript{5} Noam Chomsky, \textit{Cartesian Linguistics}, 58. I have included multiple citations here from the same page because I am spot-quoting Chomsky’s introduction, a technique that I employ at various points throughout this paper.

\textsuperscript{6} Noam Chomsky, \textit{Cartesian Linguistics}, 60-62.

\textsuperscript{7} Noam Chomsky, \textit{Cartesian Linguistics}, 63.
studied grammar from some of their seventeenth and eighteenth-century contemporaries. He says that the Cartesians were uniquely interested in uncovering “the universal principles of language structure.”\textsuperscript{8} Chomsky thinks that this made the Cartesians scientific, since they desired to have “rational explanations” for the facts of language. This search for what Chomsky also calls “the general principles [underlying speech]” separated the Cartesians from their peers who were, instead, dedicated to the “compilation of [linguistic] facts” alone.\textsuperscript{9} Chomsky suggests that the explanatory nature of Cartesian grammar is, again, valuable because it shows contemporary linguists how they can be “true” scientists. In chapter four, Chomsky addresses the Cartesian attitude toward the minds of humans. He explains that in being rationalists the Cartesians were able to assume that “the principles of language…are known unconsciously and that they are in large measure a precondition for language acquisition.”\textsuperscript{10} The Cartesians were, hence, able to “account for the quite obvious fact the speaker of a language knows a great deal that he has not learned,” an explanation that an empiricist understanding of the mind could not provide, at least according to Chomsky. Rationalism – the Cartesian approach – is thus valuable because it alone offers the modern researcher a plausible explanation concerning the acquisition of language.\textsuperscript{11}

Five years after \textit{Cartesian Linguistics} was published, Chomsky commented further upon his study of past scholarship. The commentary took place during Chomsky’s debate with Foucault – an event that is now much discussed and which has over a million views on YouTube.

In particular, Chomsky says the following: “I approach classical rationalism not really as a historian of science or a historian of philosophy, but from the rather different point of view of

\textsuperscript{8} Noam Chomsky, \textit{Cartesian Linguistics}, 93.
\textsuperscript{9} Noam Chomsky, \textit{Cartesian Linguistics}, 96.
\textsuperscript{10} Noam Chomsky, \textit{Cartesian Linguistics}, 101.
\textsuperscript{11} Noam Chomsky, \textit{Cartesian Linguistics}, 98.
someone who has a certain range of scientific notions and is interested in seeing how at an earlier stage people may have been groping towards these notions.”\(^{12}\) Here, Chomsky makes a distinction between his work and that of the professional historian. The latter is, in his view, an intellectual who tries to form a robust understanding of the past. This means that a historian would tackle the topic of seventeenth-century scholarship with a mindset of wanting to know what those scholars exactly believed.\(^{13}\) Chomsky, on the contrary, claims that he is interested in gathering instances where past scholars were pointing, albeit “blindly,” toward contemporary “insights.”\(^{14}\) In other words, Chomsky has the method of “picking out” ideas that remain “unstated” in historical texts – a method that is purposefully imprecise.\(^{15}\) For Chomsky, this is yet another way for the modern researcher to discern how “great [past] thinkers were.”\(^{16}\) Although these remarks came as a response to the question of how Chomsky’s work relates to the ideas of seventeenth and eighteenth century, they seem to be the product of the criticism that both he and the text had already received.\(^{17}\)

As suggested above, there was a rather immediate response to *Cartesian Linguistics*. By 1968, scholars had already published thorough reviews of the book, with some of them directly countering Chomsky’s assertions.\(^{18}\) Before partially detailing the reception of the text, I want to


offer some possible reasons for why there was so much interest in its content. One reason for the attention was the scholarly significance of language in the twentieth century, a period of time that is sometimes referred to by scholars as being the linguistic turn. A number of disciplines – ranging from anthropology to analytic philosophy – were turning toward the study of language as the most general mode for studying systems of meaning and producing knowledge of them. This interest in language can be seen in the pivotal work of Claude-Levi-Strauss, who was incorporating the methods of structural linguistics into his study of indigenous cultures and peoples. We see a similar preoccupation in the scholarship of Wittgenstein, Derrida, and Foucault – to name a limited number of prominent others. The intrigue of Cartesian Linguistics can also be attributed to the fact that Chomsky was a leading intellectual, both within and outside of linguistics. His first book, Syntactic Structures, had been considered a “revolutionary” study of language.\footnote{American Linguistics vol. 34, no. 4 (Oct. 1968): 290. I cite Zimmer here because he notes the phenomenon of Chomsky’s history being challenged shortly after its publication.} Such praise would have required other linguists, even the ones who were not invested in theory, to become familiar with Chomsky’s work.\footnote{Randy Allen Harris, “Argumentation in Chomsky’s ‘Syntactic Structures’: An Exercise in Rhetoric of Science,” Rhetoric Society Quarterly 19, no. 2 (Spring 1989): 127.} During the 1960s, Chomsky had also become known to psychologists and philosophers of mind. Most notably, Chomsky had published a critique of B.F. Skinner’s 1957 book Verbal Behavior. At the time, Skinner was a prominent psychologist working within the then dominant tradition of behaviorism. Chomsky’s review called attention to the absurdity of behaviorist explanations regarding the use of language. For instance, Chomsky challenged Skinner’s belief that a person utters a proper noun when they are physically stimulated by the noun’s referent. Chomsky showed that this is clearly false, since
he regularly used the words “Eisenhower” and “Moscow,” without ever being stimulated by those very things.21 Ideas like these helped to cause the questioning of behaviorism and helped lead to its eventual abandonment.22

The scholarly response to *Cartesian Linguistics* has generally been negative. To paraphrase the prominent historian, E.F.K Koerner, scholars have “harshly” and “universally” dismissed the idea that *Cartesian Linguistics* is a plausible account of the past.23 While many scholars have commented upon the text, their remarks seem to coalesce into a pair of repeated criticisms. Although different, both criticisms have been employed in the drawing of a common conclusion. Specifically, the pervasive judgment is that *Cartesian Linguistics* is a text in which a scholar tries to gain influence through the retelling of the intellectual past. Koerner, in fact, deems Chomsky’s intellectual efforts to be a part of a larger, “propagandist” tradition in linguistics: one in which the present-day linguist analyzes the past and, in turn, produces a narrative in which his own ideas surpass the ones belonging to his predecessors and, in some cases, to his rivals.24

The first type of criticism questions whether or not Descartes was the architect of a linguistic tradition. It asks, in other words, whether or not there were earlier intellectuals who had espoused a similar set of ideas. If there were, then it would be inaccurate to say that Descartes created a novel approach to the study of language. Further, the scholar who did make

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that argument would be obscuring the actual tradition of linguistics and would be supplying his readers with a category that had no actual referent – in this case, *Cartesianism*.25 Vivian Salmon’s 1969 review of the book provides us with an example of such criticism:

> The reader infers that their [the Port-Royalists] treatment of deep and surface structures makes another original contribution to grammatical theory and practice, inspired by Descartes’s views on the creative aspect of language use. The essential features of that theory, however, were derived from a logical and grammatical tradition which had been developing, without any real interruption, since the early Middle Ages.26

Theoretically speaking, such a critique would not completely invalidate Chomsky’s reading of past figures. In particular, the beliefs that Chomsky ascribed to someone like Descartes would still be acceptable, since there would still be parallels between the former and the latter. The critique would simply suggest that Chomsky did not place his interpretation within the proper historical context – a rather forgivable mistake, especially for an ‘amateur’ historian. Put differently, a critic could say that Chomsky falsifies the tradition of language study and the significance of certain texts and figures, but still maintain that Chomsky accurately reports the meaning of the texts themselves. If the critique did, in fact, disprove Chomsky’s reading of history, then it would have to show that members of the supposed tradition had ideas about language that were unsuited to the thinking of either Descartes or Chomsky.

We thus see scholars who take this original criticism one step further. For instance, Camiel Hamans and Pieter A.M. Seuren argue that seventeenth-century theories of grammar neither originated with Descartes nor conformed to Chomsky’s own positions on language (e.g.

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the autonomy of syntax thesis). In severing Chomsky’s relation to the seventeenth century, the pair confirm that Chomsky was envisioning something that was not real. For the pair of scholars, the goal is ultimately to challenge Chomsky’s place within the genealogy of ideas that comprise language studies. They, for instance, suggest the following: “There is overwhelming evidence that the entire tradition of philosophical grammar led up to the ideas propagated by his enemies, the generative semanticists. American structuralism and early, strictly syntactically oriented, generative grammar were no more than temporary deviations in the history of linguistic ideas.”

In making this claim, Hamans and Seuren hope to confer the “pedigree” of past thinkers onto Chomsky’s dissenters – something that they ultimately deem to be an “ironic” turn of events.

This second type of criticism sometimes revolves around the suspension of Chomsky’s relation to Descartes – he is, after all, who the book is named after. It asks whether or not there are significant continuities between the work of the two thinkers. In so doing, it again tries to rule out the possibility that Chomsky was building a tradition of linguistics that borrowed from past thinkers. Consider, for instance, the work of Keith Percival. In a postscript to his article, “On the Non-Existence of Cartesian Linguistics,” he writes the following:

Chomsky's conception of the creativity of language use amounts to the claim that we can now characterize creativity in purely algorithmic terms. But Chomsky's attempt to account exhaustively for the structure of a single human language algorithmically has turned out to be largely unsuccessful, and it is difficult to imagine Descartes ever hazarding a similar hypothesis. In other words, Descartes himself was not a Cartesian linguist. But if Descartes was not a Cartesian linguist, then who was, other than Chomsky himself?

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Here, the idea is that Descartes would not have conceived of language in the same way as Chomsky. In particular, Percival thinks that unlike Chomsky, Descartes would not have tried to explain “the structure” of language in the terms of an algorithm, creating an irreconcilable difference between them. Obviously, Percival is speculating – we cannot, in other words, summon Descartes from the grave to find out his actual thoughts about language. Nevertheless, the goal of making this claim is to discredit Chomsky’s interpretation of Descartes, and in so doing, make *Cartesian Linguistics* unsalvageable.

1.1 My Critical Intervention

In this paper, I do not intend to repair the reputation of *Cartesian Linguistics*. I will not argue that Descartes radically changed the study of language. Nor will I try to demonstrate that there are, in fact, continuities between the ideas of the seventeenth century and the linguistics of Noam Chomsky. Scholarship suggests that both of those pursuits, while perhaps interesting, would ultimately be misguided.

Instead, I want to take an underdeveloped assertion regarding the rhetoric of *Cartesian Linguistics* and make it more expansive. In particular, scholars have recently claimed that *Cartesian Linguistics* is a piece of writing in which the reference to historical figures is an argument from authority. As such, the references have the suasive function of further establishing Chomsky’s expertise while also distinguishing him from his peers. John Joseph conveys this idea when he writes the following: “For the practitioner working in the present the appeal to the past is central to the argument from authority.” It is Joseph’s opinion that the

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appeal is “central” because it allows the present practitioner to demonstrate their “mastery” over their field, something that every academic needs to show if they want their own ideas to be taken seriously.\(^{33}\) We see a similar idea expressed in the work of Hamans and Seuren. For instance, they explain that “Having achieved a unique position of supremacy in the theory of syntax and having exploited that position far beyond the narrow circles of professional syntacticians, [Chomsky] felt the need to shore up his theory with the authority of history.”\(^{34}\) In other words, Hamans, Seuren and Joseph all contend that an appeal to authority can be found in \textit{Cartesian Linguistics}. Their claim has the upshot of complicating Koerner’s conception of propagandistic history. Koerner seems to have believed that these histories always featured a writer who seeks to be disassociated from past figures, but as Joseph rightly points out, Chomsky dismisses one set of historical figures by tethering himself to a different, unrelated set of past thinkers. In short, the three scholars suggest that past figures can, in fact, operate as authorities in histories of language study. I do not think that this claim is wrong, but I do believe that it suffers from a pair of interrelated problems, at least in its present constitution. It is thus the goal of this paper to offer a solution.

The first problem is that we currently lack both an authority and an explication of that figure’s expertise. Neither Joseph nor Hamans and Seuren have named the individuals that operate as the authorities in \textit{Cartesian Linguistics}. Unsurprisingly, they also have not provided us with reasons for why those individuals are or were authoritative. Theoretically speaking, we should perhaps concede that it is unnecessary for them to pick out a specific person or group, since the name of a historical figure (e.g. Descartes) is featured in the text’s title, something that

\(^{33}\) John E. Joseph, “Chomsky’s Atavistic Revolution (with a little help from his enemies),”

\(^{34}\) Hamans and Seuren, “Chomsky in Search of a Pedigree,” 377.
makes the matter rather obvious. We cannot, however, extend this concession any further.

Consider, for instance, the following statement from Joseph:

An innovation that might otherwise be rejected as excessive within a conservative field can be made acceptable by claiming that it is actually part of the field’s heritage – what it has always believed, even if it has temporarily forgotten that it believes it – by tying it to an authoritative figure. Texts written by that figure can usually be interpreted and contextualized in a way that supports whatever present-day view one is upholding.\textsuperscript{35}

The implication here is that with the passing of time historical figures become more ambiguous. As a result, there is a license for scholars to offer looser interpretations of them. Joseph does not say that this would allow a scholar to choose any person as an authority – but rather that scholars can make an authority mean more or less what they want. While Joseph’s reasoning may be accurate, it still does not explain why the figures in \textit{Cartesian Linguistics} were considered experts by Chomsky’s peers. It simply assumes that they were. Further, Joseph seems to be giving the writer too much agency in determining the nature of the figure’s authority. In calling \textit{Cartesian Linguistics} an argument from authority, we would seem to be saying that there were cultural beliefs that made the reference to seventeenth-century intellectuals an authoritative mode of argumentation. Indeed, intellectual authority follows from having a memorable and recognizable place in an intellectual tradition. Joseph does not, however, draw any connections between the of authority historical figures in \textit{Cartesian Linguistics} and the collective attitude of Chomsky’s contemporaries, leaving us with an uneven account of the text’s rhetoric.

I devote the first chapter of my thesis responding to this initial problem. In particular, I try to document the reception of Descartes among twentieth-century intellectuals. In so doing, I show that Descartes was considered an authority by them. I argue that this was the case because

\textsuperscript{35} Joseph, “Chomsky’s Atavistic Revolution (with a little help from his enemies),” 4.
Descartes was believed to be a revolutionary in science, an expert in mathematics and physics, and aligned with contemporary criticisms of positivism. In the course of making this argument, I try to show why these three things would have been important to Chomsky’s readers. I focus on Descartes alone because he is given a prominent role in construction of *Cartesian Linguistics*. It is safe to say that he is construed as one of the text’s more important authorities on language.

The second problem stems from the fact that there are two different conceptions of history in the scholarship surrounding *Cartesian Linguistics*. We have a set of scholars in Hamans and Seuren who claim that Chomsky pursued history because it conferred authority to his work — there was, in short, something powerful about the past. We also have a scholar in Julia Falk who claims that the history of linguistics was not appreciated or studied by the structuralists. She, for instance, writes: “At mid-century, for those who had come of age in the period of modernism, it was the present and the future that mattered; the past was of little interest.” Joseph, in fact, extends Falk’s claim about the attitude of the structuralists, applying it as a general characterization of both humanists and scientists. He writes that “it is typical for the attitude toward the field’s past to be one of simple progress,” with figures being deemed “further from the truth the further back they are in time.” The work of Falk and Joseph suggests that for some the drawing of parallels between the past and the present would not necessarily conferred authority onto Chomsky. The problem, then, is that Hamans and Seuren never say why the past was powerful. They consequently do not tell us how that power becomes transferred onto Chomsky as a researcher of language. This leaves us in a situation where we have to explain

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38 Joseph, “Chomsky’s Atavistic Revolution (with a little help from his enemies),” 3.
how those two things take place. If we do not account for them, then our account of authority in *Cartesian Linguistics* amounts to nothing more than an inadequately supported claim.

I spend the second chapter of my thesis responding to this latter problem. Given my analysis of Descartes, I first claim that we can address the problem by reinterpreting Hamans and Seuren’s statement as being a reference to the history of science, not the history of linguistics. Since mid-century scholars generally considered the ideas of the present to be more valuable than those from the past, I then try to explain how the drawing of likeness between Chomsky and the Cartesians would have produced authority for the former. On the surface, it seems like it would not, since Descartes’s external authority was limited. Citing the work of two of Chomsky’s predecessors, however, I assert that historical likeness was powerful because it demonstrated that Chomsky was in compliance with the norms of science. From there, I argue that historical likeness conferred authority onto Chomsky’s rhetorical ethos.

In order to solve both of these problems, I see my paper working within the framework of two disciplines. Given the fact that my paper studies the intellectual reception of Descartes, it initially functions as an intellectual history. However, the purpose of that history is to help make a claim regarding the nature of Chomsky’s rhetoric more tenable. My paper, in effect, becomes a study in the rhetoric of science. More specifically, it becomes a study in the scientific rhetoric of Noam Chomsky. My paper is thus meant for rhetoricians interested in the analysis of scientific argumentation. Since both *science* and *rhetoric* are ambiguous, perhaps contradictory terms, I have adopted the rather straightforward definition of Randy Allen Harris, who defines the field as the “study of the role of discourse in science, particularly in its more clearly suasive functions.” As suggested above, the suasive function that I study is Chomsky’s appeal to

authority in *Cartesian Linguistics*. In particular, I try to discern what Chomsky gains from putting the authority of Descartes into action.

In closing, I want to make one final point. The reader may be wondering at this point why we should care about arguments from authority and their appearance in the work of Noam Chomsky. It seems to me that their analysis is important because scientists cannot rely solely upon empirical data to support their ideas – this is due to the fact that data on its own cannot dictate what theoretical framework is required for understanding it – so scientists must turn to other methods of argumentation, like appealing to authorities. These appeals, in turn, help the scientist in becoming a persuasive figure with persuasive notions. By studying Noam Chomsky’s use of arguments from authority, we are thus examining how Chomsky went about achieving shifts in both the study of language and, more generally, in the study of humans. In this paper, I treat the authority of historical figures – the authority that Chomsky invokes – as having both an external and internal aspect. The former is the authority that a figure like Descartes has prior to the publishing of a text like *Cartesian Linguistics*. It captures that aspect of authority that is suggestive of wide cultural recognition. The latter is the authority that a figure like Descartes comes to assume over the course of Chomsky’s historical narrative. It picks out the aspect of authority that can be manufactured by any given rhetor.
Chapter I

2.0 Introduction: Locating Descartes’s Authority

In the first chapter of *Cartesian Linguistics*, Chomsky opens with a rather curious admission. In particular, Chomsky states that the study of language is seldom seen in Descartes’s “writings.” The fact that Chomsky limits this absence to the written word alone is revealing — it suggests that it would be possible for Descartes to still have serious ideas about language, regardless of whether or not those ideas appear explicitly in text. Indeed, Chomsky follows this admission by claiming that possibility as a matter of fact. He says that “certain observations about the nature of language play a significant role in the formulation” of Descartes’s thinking. In this turn to certainty, Chomsky highlights one of the novelties found in his reading of history, specifically his suggestion that Descartes was an authority on language. Such novelty, however, raises an interesting question: if Descartes was not visibly an expert on language, then how would he have been recognized as an authority by Chomsky’s readers? In other words, where would his expertise have come from? This question is pertinent to a study of *Cartesian Linguistics* because an appeal to authority is, in a sense, a reference to a relevant and recognizable expert, even if that authority is only conveyed through the expert’s profession or title. In short, if we suppose that Descartes did not have expertise outside of language, then we would also have to suppose that he did not possess cultural authority, which would potentially limit the power of Chomsky’s appeal.

In this section of my paper, then, I set out to describe the external (or the non-technical) factors that helped to make Descartes an authority to a twentieth-century audience. As suggested

above, the obvious value of such analysis is that it gives us a deeper account of Chomsky’s appeal. In particular, it allows us to highlight the fact idea that Descartes’s authority was “available” to be called upon prior to the publishing of *Cartesian Linguistics* and was, hence, not something that Chomsky entirely furnished through an established rhetorical method. Its less obvious yet equally important value is that it gives us a possible explanation as to why Descartes was a compelling reference for a twentieth-century audience while simultaneously highlighting Chomsky’s possible motivations for claiming Cartesian ancestry. In what follows, I will argue that three external factors furnished Descartes into an authority: (1) the belief that Descartes was a revolutionary scientist, (2) Descartes’s expertise in mathematics and physics, and (3) the aligning of his views with twentieth-century criticisms of positivism.

2.1 Argumentative Grounds: The Importance of Externality

Why study the *external* or the *non-technical* aspects of Chomsky’s rhetoric? Put simply, it seems that we cannot fully understand how the text functioned as an appeal to authority without an analysis of them. In order to show why this is the case, we must give the term a definition and then explain how it relates to the study of *Cartesian Linguistics*. Let us proceed first with the definition.

I am borrowing the term *external factor* from a distinction that has been made by the rhetorician and historian Randy Allen Harris. In his essay, “Argumentation in Chomsky’s Syntactic Structures,” Harris contends that both “internal” and “external factors” determine the extent to which any text is favorably received by an audience. Since Harris does not expound

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42 Throughout this paper, I use the phrases *appeal to authority* and *argument from authority* interchangeably.
upon the meaning of either term in great detail, I will proceed initially to define them here through my own interpretation of Harris’s essay. The former refers to forms of persuasion that are found within a text, such as the logic that animates a given argument, or the potential “artfulness” of the writer’s persona – things that are more commonly known as the argument’s logos and the rhetor’s ethos. The latter, on the other hand, refers to forms of persuasion that occur outside of a text, such as a text receiving a series of favorable reviews, or a text aligning with the general beliefs of a given audience. Harris, for instance, claims that the success of Syntactic Structures was in part the result of Chomsky having a group of followers who were “skilled orators.” This meant that the group could persuasively “propound the virtues of generative grammar” in public settings, such as at academic conferences, causing others ultimately to believe in Chomsky’s ideas. External factors are, in short, the contingent social circumstances that either help or hinder the persuasiveness of a text. As already indicated above, the circumstance that I am trying to unpack or document is the twentieth-century belief that Descartes was authority in matters of scientific practice. In so doing, I hope to give credence to the idea that the argument from authority is one of the things that makes Cartesian Linguistics a persuasive text.

Harris’s distinction between internal and external factors seems to be another way of stating Aristotle’s distinction between the technical and non-technical modes of persuasion. Aristotle defines both of these modes in the following passage: “I mean by ‘non-technical’ all those modes of persuasion that are not supplied through us but are instead available beforehand –

44 Harris, “Argumentation in Chomsky’s ‘Syntactic Structures’: An Exercise in Rhetoric of Science,” 120.
45 Harris, “Argumentation in Chomsky’s ‘Syntactic Structures’: An Exercise in Rhetoric of Science,” 127.
for example, witnesses, (evidence gained by) torture, contracts and all such things; by ‘technical’
I mean all such modes of persuasion as can be supplied by a method.”46 Like Harris, Aristotle
believes that there are certain things that are not of the rhetor’s creation that contribute to the
text’s overall effect. He, however, calls these things the non-technical – a term that is also
referred to in some translations as the atechnic.

Having defined the external or the non-technical, we can now succinctly state why an
analysis of them is significant. In short, they give us partial grounds for maintaining that
Descartes was an authority. This is due to the fact that the authority of a historical figure
depends, in part, upon a wide horizon of expectation. We cannot, for instance, be certain that
Descartes was an authority if we were to simply read Cartesian Linguistics. We can, however, be
confident that he was one if we were study his reception among twentieth-century scholars. By
performing the latter, we are studying a social circumstance (i.e., the non-technical) and are
essentially asking the following question: why would Chomsky’s readers be inclined to consider
Descartes an authority or an expert? It should be said that my answer is not an attempt to say
whether or not Chomsky’s appeal was fallacious. We cannot make that claim unless we have
first established that Descartes was an authority.

So far, I have been making two assumptions that I would now like to justify. First, I have
been assuming that Cartesian Linguistics has had some level of influence over Chomsky’s
audience. Given the fact that the majority of scholars have sought to challenge the text, it may
seem like the opposite has been true — that the text has been generally unconvincing. But that
initial perception is misguided, since it ignores the fact that a text can be convincing, even if it

46 Aristotle, Art of Rhetoric, trans. Robert C. Bartlett (Chicago: University of Chicago Press,
2019), 11.
has been met with critical dissension. We can even use those criticisms to infer the fact that the
text has been influential. Put simply, why would scholars continue to challenge something that
no one was taking seriously?

But enough with hypothetical reasoning. Let us turn to some specific examples of
scholarship that speak to the text’s influence. Consider, for instance, the scholarly reception of
Géraud de Cordemoy. In an entry found in the *Stanford Encyclopedia of Philosophy*, which was
originally published in 2005 and then revised in 2018, de Cordemoy is said to have thought that
there was “a creative aspect” to the language of humans.47 As far as I can tell, the first person to
make this claim about the French philosopher was Chomsky. In short, the entry shows that
Chomsky’s reading of history has not been uniformly rejected – it is still shaping how we make
sense of past scholars. More critical is the work of Wolfram Hinzen, a linguistic who has
advanced what he calls the *Un-Cartesian Hypothesis.*48 I mention Hinzen here because his work
does not question the way in which the text represents the past. It thus enables us see the text’s
influence in other areas of research, such as in the study of the human mind. Without getting
cought up in the formalities of the hypothesis, it is enough to say that Hinzen considers the
hypothesis to be denying one of the main Cartesian tenets, something espoused by not only
Chomsky but also by the Port-Royal grammarians: namely, the idea that human thought and
human language share an “interface,” but ultimately have their “own principles of
organization.”49 While it is true that scientists sometimes hold onto ideas that are no longer
persuasive (e.g. behaviorism), it seems unlikely that a scholar like Hinzen would position his

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47 Fred Ablondi, “Géraud de Cordemoy,” *Stanford Encyclopedia of Philosophy*, April 12, 2018,
hypothesis in opposition to Cartesianism if it did not represent a forceful set of ideas. In addition, if we take Hans Aarsleff at his word — “that Chomsky’s work [i.e. Cartesian Linguistics] has in fact been read and understood as the history of linguistics”50 (emphasis added) — then we can be assured that Cartesian Linguistics was an influential text.

My second assumption stems from the fact that appeals to authority depend, in part, upon the collective attitude of the rhetor’s audience. In the case of Cartesian Linguistics, I have been assuming that we should initially be investigating the audience’s reception of Descartes. I have supposed this to be true because Descartes is one of the figures from the text whose authority is readily seen outside of it. Put differently, there is little reason to believe that a philosopher like Géraud de Cordemoy, whose work is cited throughout Cartesian Linguistics, would have been considered an expert by Chomsky’s original readers. This makes it difficult to completely construe Cordemoy as being an authority. On the one hand, he comes to accrue power over the course of Cartesian Linguistics. Chomsky, for instance, says that Cordemoy belongs to the Cartesian tradition of language study. In being a part of that tradition, Cordemoy figures join a “fruitful” program and, thus, become a forceful individual.51 On the other hand, Cordemoy lacked widespread acclaim among twentieth-century scholars, something that is a component of having intellectual authority. The same is true for the other, lesser known figures that appear within the text – I have merely used Cordemoy as an example of this fact.

I also think that it is proper to pay special attention to Descartes because he appears in the text’s title. This suggests that Chomsky wanted his readers to immediately associate Cartesian Linguistics with the seventeenth-century scholar. In other words, the text singles out Descartes as

51 Chomsky, Cartesian Linguistics, 57.
having a special place within this tradition of language study – after all, he is the person who made the tradition possible, at least according to Chomsky. It is, hence, important to try and discern why that association would have been powerful for Chomsky and his readers. As suggested above, it is my contention that we cannot do this through an analysis of *Cartesian Linguistics* alone.

In focusing on Descartes, I am not saying that there are no other authorities present in *Cartesian Linguistics*. As I have already stated, the narrative that Chomsky tells inherently positions these figures as being experts. In fact, the originality of Chomsky’s thesis – that the Cartesians were an authoritative set of linguists – forces us to consider the possibility that the other figures who appear in his book may have been external authorities in their own right. In principle, it could have been the case that Cordemoy possessed authority among twentieth-century philosophers, irrespective of Chomsky’s conception of history. In other words, my choice of Descartes is not an attempt to diminish the role that other thinkers play in *Cartesian Linguistics*. It is, instead, an attempt to analyze the effect of Descartes’s elevated position within the Cartesian tradition.

2.2 The Argument: Historical Documentation of Descartes’s Authority

To start, I want to document the disposition of twentieth-century linguists – in particular, their valuing of scientific practice and, by extension, their attempt to transform linguistics into a science. In documenting this value and behavior, we see that scientists would have been of interest to Chomsky’s readers. Further, we come to suspect that twentieth-century linguists would have been attracted to the idea of having scientific ancestry, of being able ground their own pursuits in the scientific tradition. I think that these are the things that made Descartes a relevant authority. Consider, for instance, John Joseph’s description of Chomskyan linguistics.
Joseph says that “Chomsky’s avowed aim was to bring linguistics to the level of rigor of physics, at once the most mathematical and the most exact of the physical sciences.” Clearly, if Chomsky was trying to mathematize linguistics, and in so doing, mirror the precision found in physics, then he was, by definition, trying to push linguistics toward the sciences. Furthermore, it is apparent that Chomsky would have not done this if he did not esteem the sciences. We, in fact, see this effort and appreciation on display when Chomsky writes the following:

When we speak of the mind, we are speaking at some level of abstraction of yet unknown physical mechanisms of the brain, much as those who spoke of the valence of oxygen…were speaking at some level of abstraction about physical mechanisms, then unknown. Just as the discoveries of the chemist set the stage for further inquiry into underlying mechanisms, so today the discoveries of the linguist-psychologist set the stage for further inquiry into brain mechanisms.

Here, Chomsky suggests the work of the linguist is similar to the work of the chemist. The latter, according to Chomsky, devises abstract “theories” that assist the physicist in discovering the “physical mechanisms” of natural phenomena. The former does the same thing – except instead of helping the physicist, the linguist is helping the “brain scientist” in discerning the brain’s material constitution. In short, the equating of the linguist with the chemist certifies Joseph’s contention that Chomsky wanted linguistics to be understood as a part of the physical sciences. It also important to note that Chomsky’s was not the only linguist chasing a scientific model — in other words, his predecessors also wanted an “autonomous” science that was dedicated to the study of language alone. Peter Matthews, for instance, discusses Zellig Harris’s conception of

54 Chomsky, Language and the Problems of Knowledge, 7.
language as “a set of utterances,” a point view in which natural languages are treated as if they were “mathematical system[s].” 56 We go on to learn from Matthews that Chomsky would further this mathematical approach, which again speaks to Chomsky’s attraction to the sciences.

One factor that contributed to Descartes’s authority was the twentieth-century belief that he was a member of the scientific revolution. 57 In other words, it was thought that Descartes had played a key role in the inventing of science. As a revolutionary, Descartes received the status of being an authority because he had accomplished something that had seemed very difficult, at least from the perspective of twentieth-century scholars, and because he struck those individuals as having assisted his peers in developing a method of thinking that was still animating academic research. We see this pair of ideas expressed in the historical work of Alexandre Koyré and Alfred North Whitehead. Koyré, for instance, writes the following:

The “evidence” and the “naturalness” which these conceptions and considerations are enjoying are very young: we owe them to Galileo and Descartes, whereas to the Greeks, as well as to the Middle Ages, they would appear as “evidently” false, and even absurd…This, in turn, enables us to understand why the discovery of such simple and easy things, as for instance, the fundamental laws of motion…has needed such tremendous effort…they had not to “discover” or to “establish” these simple and evident laws, but to work out and to build up the very framework which made these discoveries possible. They had, to begin with, to reshape and to reform our intellect itself. 58

In this passage, Koyré explains that modern scientific notions – such as the law of inertia – would be rejected by ancient and medieval scholars, despite the fact that these notions seem

57 Steven Shapin explains that twentieth-century scholars considered the scientific revolution to be “a climatic event that fundamentally and irrevocably changed what people knew about the natural world and how they secured proper knowledge of that world” (5). See his book The Scientific Revolution for further information.
obvious to the contemporary individual. Put differently, Koyré is suggesting that Descartes had to come up with scientific “conceptions” and “considerations” from scratch, since they had never previously been considered. In so doing, Descartes not only displayed “tremendous effort” but also demonstrated his great ability as a thinker. Descartes was thus an authority because he generated a field of study with minimal assistance, something that could only be achieved by an intellectual expert. We find that what is implicit to Koyré’s work becomes more explicit in Whitehead. In particular, Whitehead emphasizes the fact that the “mentality” of seventeenth-century scientists is still relevant to current scholarship. For instance, he says that figures like Descartes gave a “new tinge to modern minds,” which he then describes as “a vehement and passionate interest in the relation of general principles to irreducible and stubborn facts.” Whitehead goes on to tell us this that “balance of mind” has become central to “cultivated thought” and that it is “the salt which keeps life sweet.” In other words, people were still seeking the same thing as Descartes and his peers. Descartes was, hence, also an authority because he made lasting contribution to the collective attitude of people.

Deepening Whitehead’s rather general remarks are a series of articles from the mid-twentieth century. Unlike Whitehead, these articles focus solely on Descartes – in particular, they try to measure Descartes’s impact upon the sciences. Ultimately, however, the articles make a similar suggestion to Whitehead: they contend that Descartes was an authority because he had developed principles that were enduring to the practice of science. We see an example of this in

Laurence J. Lafleur’s essay “Descartes’s Role in the History of Science.” He writes the following:

Scientific progress is to be achieved not only or even primarily by learning new facts, but rather by the device of consolidating laws already achieved in different fields, as for example, Newton combined Galileo’s laws of falling bodies with Kepler’s laws of planetary motions. But the first outstanding achievement in combining laws was that of Descartes himself when he synthesized the methods of algebra and geometry in the new field of analytic geometry.  

Lafleur tells us here that Descartes was the first individual to create new laws of science by pairing the findings of different scientific disciplines. He explains that this combinatory principle and practice is the thing that ultimately enabled Newton to devise the law of gravitation. In mentioning Newton, Lafleur is obviously highlighting the fact that the principle was effective for other scientists. Lafleur contends, however, that there is a deeper significance to the practice. In particular, he thinks that the principle inspired, and still inspires, other scientists: it made them think that it was possible to have “unifying principles” that account for “diverse” phenomena, something that was previously doubted. In short, Lafleur makes the case that Descartes was an authority because he was a scientist with great principles and practices. He was, put simply, a scientist of merit.

At points, these articles go a step further and suggest that Descartes was an authority because he made enduring scientific discoveries. Although different in nature, the claims once again imply that Descartes was a scientific expert. Lafleur, for instance, claims that Descartes was responsible for the law of refraction. Similarly, Gerd Buchdal, D. Lawler and even Koyré

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all contend that Descartes anticipated Newton’s first law of motion. Lawler, for instance, writes: “In reading through these ideas of Descartes on motion and the laws which govern moving bodies, one would almost imagine that they were an account of Newton’s three laws of motion as given in a modern textbook of physics.”68 I mention these remarks in passing only because it seems that the authority of someone like Descartes came less from having the right beliefs about things like motion, and more so from having developed principles and practices that would lead to a correct set of ideas.

A second factor that would have made Descartes an authority was his championing of mathematics and his achievements in physics. A. Rupert Hall, for instance, writes the following about Descartes’s conception of science: “Mathematical ideas…could be understood with perfect clarity and mathematical demonstrations accepted with absolute confidence. These principles, to which Descartes held firm in all his scientific activities, ally him with Galileo in the attainment of the ideal of matematization throughout science.”69 Hall tells us here that Descartes was of the opinion that the sciences should be mathematized, since that would confer coherence and accuracy to scientific practice. This opinion would indicate to other scientists that their studies would be best served by the application of mathematics — that the subject should be of the upmost priority. We also learn from Hall that Descartes’s approach to science was most useful to studies in physics, with Descartes “discovery” of the “algebraic function $y = f(x)$” serving as an example.70

70 Hall, *The Scientific Revolution*, 230
Descartes’s belief that science should be predicated on mathematics was also held by twentieth-century scholars. Consider, for instance, the words of Leslie White, a sociologist who in 1943 characterized his peers has having a fascination with both physics and mathematics. He summarized their thinking as follows:

We may thus gauge the ‘scientific-ness’ of a study by observing the extent to which it employs mathematics — the more mathematics the more scientific the study. Physics is the most mature of the sciences, and it is also the most mathematical. Sociology is the least mature of the sciences and uses very little mathematics. To make sociology scientific, therefore, we should make it mathematical.\(^1\)

In this passage, White explains that twentieth-century scholars were of the view that the deployment of mathematics guaranteed the practice of science. Since there was an unparalleled use of mathematics in physics, it was by definition the exemplar of scientific inquiry. Under this view, mathematization was a standard that scientists needed to meet, while physics was a replicable model, with a proven track record. Indeed, White suggests that this view stemmed in part from the belief that twentieth-century physics had many “successes,” which caused others to feel both “wonder” and “admiration.”\(^2\) This idea is also expressed by the work of White’s contemporaries. For instance, Lewis Beck published an article in 1949, entitled “The ‘Natural Science Ideal’ in the Social Sciences.” Like White, Beck discusses the phenomenon of social scientists trying to incorporate the techniques that would be used by the natural scientist. While not citing explicit motivations for this behavior, Beck likewise implies that “the past glory of… physics” had pushed social scientists toward the practice of emulation.\(^3\) From White and Beck’s description, we can thus conclude that Descartes would have been an authority because he would

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\(^3\) Lewis Beck, “The Natural Science Ideal in the Social Sciences,” *The Scientific Monthly*, vol. 68, no. 6 (June 1949): 386.
have confirmed what some of Chomsky’s audience already believed to be true: that the best science is the science that operates through the use of mathematics. Again, Descartes would have seemed like he had the right set of ideas about the practice of science.

A third factor that furnished Descartes into an authority was the belief that he stood on the periphery of the empiricist tradition. Hall, for instance, writes the following about Descartes: “In any case the liberty to frame hypotheses (in spite of Newton’s famous dictum), with the rigorous attention to the findings of experiment and observation which Descartes himself neglected...was to prove a creative factor in the accelerating progress of science.” Hall is describing here, albeit with some qualification, what he considers to be one of Descartes’s best qualities: namely, his skill for the “imaginative,” which when abused could result in the formation of “speculative” ideas. The quality itself is a reference to Descartes’s practice of theorizing about a phenomenon without having performed prior empirical testing — a habit that Hall sees as potentially being a source of “creativity,” that is, if executed properly. It was also something that distinguished Descartes from his contemporaries, such as Newton, who derided the developing of hypotheses. The idea that scientists had the “liberty” to construct theorizes would have seemed accurate to twentieth-century intellectuals. Prior to Cartesian Linguistics, for instance, scientists started to assign less value to empirical forms of inquiry. At the time, empiricism (in this case, logical positivism) had been the normative approach to studying

74 Interestingly, Lafleur contends that there were empiricist strands to Descartes’s thinking.
75 Hall, The Scientific Revolution, 183
76 Hall, The Scientific Revolution, 184.
77 Hall, The Scientific Revolution, 184.
scientific phenomenon. Roughly speaking, it stipulated that the sciences should be grounded in physical “observations,” which would eventually result in the formulation of “general laws,” with the laws themselves expressing information that was rooted in the perception of environmental stimuli.\textsuperscript{80} There obviously would have been little use for the scientist’s imagination in this approach to nature. Harris, however, tells us that the restriction on mental contrivances made the linguist’s life difficult, with the linguist having to account for things like the relation of words through empirical descriptions. The fact that Chomsky suggested to linguists that they should instead use their “intuitions” to theorize about what those relations might be — or in some cases make “guesses” — is what helped his program flourish, at least according to Harris.\textsuperscript{81} Like above, in the case of mathematics and physics, Descartes would have been an authority because he would have affirmed what Chomsky and his followers had deemed as the right approach to the study of language.

2.3 Objections and Questions

In response to everything that I have just argued, my reader may raise an obvious set of objections. Specifically, they may question whether it would have been likely for Chomsky’s readers to know these things about Descartes. Considering the fact that linguists were not historians, they may reason that the possession of such knowledge would have been an unlikely outcome. Given this improbability, they may claim that there is adequate reason to reject my argument. Along the same lines, they may also question whether it would have been possible for Chomsky to know these things about his audience. They may then ask whether I am setting out

\textsuperscript{80} Howard Brick, \textit{Age of Contradiction: American Thought and Culture in the 1960s}, 40.
\textsuperscript{81} Harris, “Argumentation in Chomsky’s ‘Syntactic Structures’: An Exercise in Rhetoric of Science,” 118.
to praise Chomsky’s abilities as a rhetorician.\textsuperscript{82} Let me respond to the second objection first. Descartes’s status as an authority is not dependent upon Chomsky’s intentions. Chomsky may have known that some of these things would have made Descartes attractive, but he also may not have. These factors could have even motivated him in choosing Descartes as his would-be ancestor, undermining the possible suggestion that he was a master manipulator. What Chomsky knew is really beside the point. To borrow again from Harris, the purpose of this study has been to explain why Descartes was an authority as a result of his expertise in science. It is not an attempt at delineating Chomsky’s own aims.\textsuperscript{83} The second objection is, however, less challenging than the first. In response to the former, I would say that there is no way to guarantee that Chomsky’s readers thought of Descartes as an expert. There was, nonetheless, a belief among some twentieth-century scholars that Descartes was an authoritative individual. We can either assume that this is what made Descartes an authority to Chomsky’s readers or we can choose to look for another explanation. I am uncertain as to where that explanation would begin and ultimately end, but I do think that it would have to start with a rethinking of what counts as authority.

The reader might also be wondering why I have not discussed Descartes’s reputation as a philosopher and have chosen, instead, to focus on his standing as a scientist. Put simply, the reader may believe that I have made a mistake in not mentioning Descartes’s philosophical expertise. There are, in fact, scholars who do the opposite. More specifically, they argue that Chomsky compares himself to Descartes in order to suggest that he is a preeminent philosopher.

\textsuperscript{82} Harris alludes to this criticism on page 127 of his essay.

\textsuperscript{83} Harris, “Argumentation in Chomsky’s ‘Syntactic Structures’: An Exercise in Rhetoric of Science,” 127.
Consider, for instance, the description that Chris Knight gives of Descartes and Chomsky. In his book, Decoding Chomsky, he writes the following:

Celebrated as ‘the father of modern scientific philosophy’, Descartes was, of course, a towering European figure with immense authority. To align yourself with Descartes has the obvious advantage of suggesting that you are philosopher of the highest order, while, at the same time, distracting attention away from politics of any kind.  

In this passage, Knight suggests that Descartes made a unique contribution to the sciences — a sentiment that was also expressed by twentieth-century intellectuals, as we have already seen. Unlike the latter, however, Knight’s depiction of that contribution is unclear. Knight, for instance, never explains what he exactly means by scientific philosophy. He also never says whether this achievement made Descartes an authority outside of philosophy. In other words, Knight does not address Descartes’s standing among the scientists. I do not think that Knight’s understanding is ‘wrong’ – the link that Chomsky creates between Descartes and himself is obviously suggestive of his prowess as a theoretician. It is also difficult to see how scientific philosophy (whatever that may mean) can truly be distinguished from the practice of science, since the two things go hand in hand – so by being an expert in one, a scholar is already an expert in the other.

With that being said, I think that Knight’s characterization of Descartes and Chomsky is an oversimplification – at least from a historical perspective on the scholarship of the twentieth century. In particular, I think that Knight glosses over the fact that some of the intellectuals from the twentieth century saw science as if it were philosophy’s superior. Chomsky seems to have carried this attitude toward the sciences into his understanding of Descartes. He emphasizes the fact that Descartes was a scientist while downplaying the fact that Descartes was also a

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84 Chris Knight, Decoding Chomsky: Science and Revolutionary Politics (New Haven: Yale University Press, 2016), 142.
philosopher. Chomsky, for example, claims that Descartes was “primarily a working scientist and presumably thought of himself that way.”

In this paper, I have thus sought to unpack the significance of Chomsky calling upon Descartes’s scientific authority. In so doing, I have not been aiming to suggest that a distinction can be made between his science and his philosophy. Rather, I have been trying to capture one aspect of Descartes’s authority – the aspect that has been regarded scientific, since it is that aspect that seems to be most appealing to Chomsky. After all, Chomsky is a scholar invested in having adequate knowledge of both language and the natural object that is the human language faculty, and that is for him a scientific aim.

As already suggested above, we see the elevation of Descartes’s science over and above his philosophy in Chomsky’s own statements. Consider, for instance, the following passage from the *Managua Lectures*:

> In discussing the intellectual tradition in which I believe contemporary work finds its natural place, I do not make a sharp distinction between philosophy and science. The distinction, justifiable or not, is a fairly recent one. In dealing with the topics that concern us here, traditional thinkers did not regard themselves as “philosophers as distinct from “scientists.” Descartes, for example, was one of the leading scientists of his day. What we call his “philosophical work” is not separable from his “scientific work” but is rather a component of it concerned with the conceptual foundations of science and the outer reaches of scientific speculation.

Here, Chomsky explains to his readers that he does not fully incorporate twentieth-century standards into his judgments of past thinkers. More specifically, he says that he does not entirely recognize the “distinction” that scholars make between science and philosophy, since it is a modern invention. Given Chomsky’s hesitancy, it is surprising to see that he still calls Descartes a scientist. He even claims that that all of Descartes's philosophical work was a “component” of

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his scientific interests. Chomsky, hence, implies that Descartes’s philosophy did not exhaust his pursuits as a scientist. The operative term in this passage seems to be the adjective *sharp*, which modifies the noun *distinction*. The adjective lets the reader know that Chomsky still considers there to be a difference between the philosopher and the scientist, although he may be dubious as to how great those differences are. Chomsky seems to believe that Descartes only came to philosophy because he had conducted prior scientific inquiry. In short, it seems apparent that that Chomsky wanted his readers to think of Descartes as a scientist first and as a philosopher second. Chomsky obviously does not control the associations that his readers have made and will make when he cites Descartes. I do, however, think that it is appropriate in this instance to tailor our study around Chomsky’s understanding of the seventeenth-century scholar. We otherwise risk losing the connection between our analysis of Descartes and the rhetoric of *Cartesian Linguistics*. 
Chapter 2

3.0 The Questionable Authority of History

In the last chapter, we aimed to portray the non-technical side of Descartes’s authority. Given the fact that Chomsky’s interpretation of Descartes was novel, specifically in its contention that Descartes was an authority on language, we had to discover what would have made the seventeenth-century scholar an authority to Chomsky’s readers. The task was essential to demonstrating the fact that Chomsky’s appeal to Descartes was, in part, dependent upon the latter’s cultural reputation as an authority on science, particularly among twentieth-century intellectuals.

The text’s introduction indicates, however, that it would be somewhat of a mistake to say that the Cartesians possessed external authority, at least prior to the publishing of *Cartesian Linguistics*. Chomsky, for instance, suggests that he was one of the few linguists to appreciate Whitehead’s reading of history.\(^{87}\) It bears repeating that Whitehead thought of the past – in this case, the science of the sixteenth and seventeenth century – as having a continued effect upon both the practice of science and the attitude of people.\(^{88}\) This implied to Whitehead’s readers that the past should not be set aside – it should, instead, be both respected and acknowledged. In having an unpopular opinion, Chomsky is obviously implying that his peers believed the opposite. Indeed, Chomsky claims that his peers have “attempted to construct a theory of language in an entirely new and independent way.”\(^{89}\) Such attempts tell Chomsky that his peers consider past work in linguistics to be beneath them. If we take Chomsky at his word, then the

\(^{87}\) Chomsky, *Cartesian Linguistics*, 57.


\(^{89}\) Chomsky, *Cartesian Linguistics*, 57.
work of someone like Descartes would not have been representative of an external authority, since no historical figured would have been widely construed as an expert.

Making matters worse is Chomsky’s subsequent contention that his peers also acted out of historical ignorance. He, for instance, states that the history of linguistics “is in a sorry state – a circumstance that has, in fact, stopped him from drawing a “[fuller] account” of the discipline’s past.90 When it was simply a matter of scorn, there was the possibility that Descartes’s thinking on language was being judged by other scholars. We could even imagine that some linguists liked what the Cartesians had to say about language. But when we consider the fact that linguists were generally unaware of their own history, it becomes even harder to think that the past of language study was externally an authoritative entity. It would have been, after all, an unknown quantity. If we want to continue in making sense of the text as an argument from authority, then we thus have to explain how it would be possible for the past to contain an authoritative set of ideas.

3.1 Making History Authoritative

The most immediate explanation for the authority of history comes from Chomsky’s conflation of the past of science with the past of linguistics. Falk, for instance, tells us that twentieth-century linguists found the past unattractive because it represented a time when their discipline was not a science.91 However, as we have just seen in the last chapter, Chomsky named his study after an individual (i.e., Descartes) who was considered an authoritative scientist. Further, he chose to open Cartesian Linguistics with a reference to Whitehead’s book Science and the Modern World, which was about the forging of science, not the history of

90 Chomsky, Cartesian Linguistics, 57.
91 Falk “Turn to the History of Linguistics Noam Chomsky and Charles Hockett in the 1960s,” 140.
linguistics. This means that Chomsky was not completely associating the past of linguistics with philosophy or philology. 92 He was, in other words, drawing the past of linguistics closer to the past of science. In so doing, Chomsky had imbued the former with the authority of the latter.

This explanation has an advantageous upshot. Yet it ultimately remains incomplete. The upshot is that we can now say that when Hamans and Seuren call history authoritative that they are referring to the past of science, not the past of linguistics. Recall that the pair of scholars had never specified what they mean by history. This left their claim unsupported and, potentially, at odds with Falk who documented the fact that twentieth-century linguists were not concerned with the history of their discipline. 93 Her work thus indicates that the past of linguistics would not have been an authoritative entity. In short, the explanation demonstrates that Chomsky’s conception of the past was unconventional, in the sense that it included figures who were considered scientists – a detail that then enables us to offer a new interpretation of Hamans and Seuren’s statement. When we turn, however, to the work of Joseph, we realize that our explanation is incomplete. Joseph, for instance, claims that Chomsky’s rhetoric was revolutionary because he positioned himself as belonging to a group of thinkers who were around 300 years old. At the time, says Joseph, scholars considered past ideas to be “further” removed from the truths of the present. 94 In other words, scholars thought that the truth had changed. By “embracing” thinkers who were so distant, Joseph argues, Chomsky was contradicting standard thinking and was proposing a return to a less acceptable beginning. 95

92 Falk tells us that both philosophy and philology were considered the non-scientific disciplines that linguistics broke away from.
94 Joseph, “Chomsky’s Atavistic Revolution (with a little help from his enemies),” 3.
95 Joseph, “Chomsky’s Atavistic Revolution (with a little help from his enemies),” 10.
Joseph’s argument suggests that even though Descartes had external authority, that his authority was somewhat limited, since it was supposed that past figures did not have all of the right ideas. Descartes, for instance, was criticized for some of his scientific practices, such as his reliance upon deductive reasoning.\textsuperscript{96} This means that Chomsky was not accruing much of his own authority by likening himself to past thinkers. We hence have to account for how a similarity in perspective between Chomsky (i.e., a present thinker) and the Cartesians (i.e., a set of past thinkers) would have resulted in more authority for both of them. Obviously, Chomsky would not want to be associated with the diluted, external authority of the Cartesians. To explain where this added layer of authority comes from, we need to turn to the technical or internal aspects of Chomsky’s rhetoric in \textit{Cartesian Linguistics}.

In order to further fortify our solution, I will apply a form of rhetorical analysis that looks at the ethos of the scientist. In particular, the analysis says that scientists try to position themselves as actively embodying the “norms” or the “virtues” of the sciences.\textsuperscript{97} In so doing, scientists can come across as being either smarter or more ethical individuals. Put simply, they become the proper practitioners of their field, something that in turn gives them credibility or authority with their readers. This analysis of rhetorical ethos was originally developed by Lawrence J. Prelli. Prelli was, however, himself building upon the work of R.K. Merton – a sociologist from the twentieth century who was studying the practice and culture of science. In an essay from 1942, “The Normative Structure of Science,” Merton proposes that the general spirit of the scientist is the following: “A toned complex of values and norms which is held to be

\textsuperscript{96} Gerd Buchdahl, “The Relevance of Descartes’s Philosophy for Modern Philosophy of Science,” \textit{The British Journal for the History of Science} vol 1., no. 3 (June 1963): 227.
binding on the man of science.” Merton explains that the scientist comes to “internalize” this complex of values and norms through “precept,” “example” and institutional “sanction.” Further, he says that the presence of these norms can be concluded from “the moral consensus of science,” which is seen both in the behavior of scientists and also in writing that specifically addresses scientific behavior. Ultimately, Merton finds that there are four norms that constitute the spirit of the scientist: universalism, communalism, disinterestedness, and organized skepticism. Prelli, in response, does not challenge Merton on whether or not these norms exist. Although he mentions others who have, in fact, sought to counter the content of Merton’s description by positing the existence of other norms, Prelli instead claims that the norms (whatever they may be) have a rhetorical function. He, for instance, writes that “When scientists resort to these common themes in discussing, justifying or evaluating actions … [the themes or norms] function like rhetorical topoi for inducing favorable or unfavorable perceptions of scientific ethos.” In other words, Prelli is of the opinion that the scientist constructs his textual character through the deployment of these norms, specifically in moments of qualitative judgement. I am thus arguing that Chomsky makes history more authoritative by having it suggest that he has the character of the scientist who rightly complies with science’s norms and values.

The history found in Cartesian Linguistics suggests that Chomsky honors two of norms listed above: namely, universalism and communalism. According to Prelli, who seems to have copied his definition directly from Merton, the former can be defined as follows: “The

requirement that knowledge claims be subjected to pre-established, impersonal criteria that render them consonant with observation and previously established knowledge.”101 From this definition of universalism, we come to understand how a discussion of history can make the scientist seem devoted to the norm. In particular, the definition says that the scholar has to know the accepted criteria and the accepted truths of science – two things that would have been determined in the past. The norm, hence, does not diminish past work. It, instead, stresses conformity between past and present practitioners, since the facts and criteria become independent of any individual. This means that the scientist who positions himself as knowing the past could also position himself as knowing how those criteria and truths came to be. He could then forcefully argue that the way in which he was practicing science was endorsed by history – that is, by the “pre-established, impersonal criteria” of the scientific tradition. In so doing, the scientist would come assume the authoritative ethos of the intelligent and credible practitioner. It is my contention that this is what we see this in Cartesian Linguistics. In the text, Chomsky imputes principles of scientific practice onto Descartes. Those principles ultimately become the “pre-established criteria” that guide the scientific study of both language and mind. In using and extending those criteria, Chomsky acts as the scientist should.

Now, of course, a scientist does not need to know history in order to satisfy universalism. A scientist can know that water is “a compound of oxygen and hydrogen,” without having any knowledge of that fact’s history.102 How that fact came into existence is ultimately irrelevant as long as it is acknowledged. The point is, however, that history allows the scientist to exploit this norm for his own rhetorical benefit in a way that simple acknowledgement does not. It should

also be said that the importance of the “pre-established” criteria can be debated: one scientist can view certain conclusions as valuable, while another scholar may doubt their significance altogether. Prelli, for instance, explains that some scientists position themselves as being revolutionaries when the pre-established facts stand in opposition to their ideas. In other words, he shows that scientists make the norms fit or correspond to their given aims, despite the fact that the norms initially appear to be immutable.

In addition to being consonant with the norm of universalism, historical references can also make the scientist appear to be more committed to the norm of communalism. Unlike universalism, communalism does not have an immediate connection to a discussion of history, at least according to Prelli. He defines this latter norm as follows: the “[prescription] that research is not a personal possession but must be made available to the community of scientists.” It is, in Prelli’s estimation, purely a matter of abstaining from the expression of one’s ownership over scientific research. In the case of Cartesian Linguistics, however, there is no patent or unique method of research for Chomsky to claim as an owner – after all, the book is as much a history as it is a work of theory. By Prelli’s definition, then, Chomsky has satisfied this norm by simply making his book available to the public. Obviously, this would not greatly enhance Chomsky’s textual character. When we look back to Merton, however, we receive a more expansive definition of communalism. For instance, Merton writes, “The humility of scientific genius is not simply culturally appropriate but results from the realization that scientific advance involves the collaboration of past and present generations.” Put differently, Merton holds that the scientists of the present need to acknowledge the past if they want to be successful, since those scientists are

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building upon the achievements of past work. For Merton, communalism is a norm that requires the free sharing of information among scientists, but it also requires the scientist to recognize the importance of past thinkers. In *Cartesian Linguistics*, Chomsky positions himself as performing this latter task: he suggests that linguists have turned away from the path of language science that was originally developed in the seventeenth century by the Cartesians. As a result, it has become necessary for Chomsky to reestablish the connection between the past and present of language studies. In so doing, he is enabling his peers to make scientific judgments in the future, since they will be able to extend Cartesian studies of language. In short, Chomsky’s discussion of history – his likening of himself to the Cartesians – makes him seem like a practitioner who values the well-being of the scientific community, since he is promoting the continued growth of science, something that has become threatened. It hence has the effect of making his textual character seem representative of the ethical scientist.

So far, I have outlined the following contention: within *Cartesian Linguistics*, historical resemblance has the function of empowering Chomsky’s textual ethos, since it aligns him with the norms of science. This assertion does, however, have a weakness. In particular, it seems overly reliant upon Chomsky’s own writing. If historical resemblance could indeed serve this rhetorical purpose, then we should be able to find examples of it in the work of other scientists or linguists. To thus remove this weakness, I will make another claim. I will argue that we see the same rhetorical process taking place in a pair of essays that were written by two of Chomsky’s predecessors: namely, Leonard Bloomfield and Leo Spitzer. In 1944, both scholars had featured in the journal *Language*. Spitzer’s publication “Answer to Mr. Bloomfield” was a formal response to Bloomfield’s essay “Secondary and Tertiary Response to Language,” which had
appeared in the journal earlier that year.\(^{105}\) Although at odds, both linguists suggest that the past authorities of science endorsed certain principles of scholarly practice. Both then claim that they are still abiding by those same principles. However, both find that those principles are being wrongly rejected by some members of the scientific community – an action that is in disagreement with the standards of science and that is producing dire consequences. In tethering themselves to figures from the past, Bloomfield and Spitzer each indicate that they are embodying the norms of universalism and communalism. They hence assume the position of the authoritative scientist and make their claims more persuasive. Going forward, I will seek to support our amended contention with textual evidence from the works of Bloomfield, Spitzer, and Chomsky.

3.2 A Brief Synopsis of Bloomfield

In his essay, *Secondary and Tertiary Responses to Language*, Bloomfield describes the problematic experience of being a linguist who practices science. He starts by telling us that there is a class of linguistic statements that make reference to language — statements that he calls *secondary responses*.\(^{106}\) Although a secondary response can be indicative of science, Bloomfield finds them more often than not to be indicative of the “lores” that are present in human culture.\(^{107}\) The use of the word *lore* — a term that is roughly synonymous with *myth* — is meant to highlight the fact that these responses tend to be the opposite of scientific. One myth, says Bloomfield, is the popular belief that non-normative patterns of speech (what he calls “dialects”) are the result of a given speaker’s misjudgment, since it is believed that the use of

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\(^{105}\) Bloomfield’s essay was published in the second edition of volume 20, while Spitzer’s was published in the fourth edition of that same volume.


normative sounds and forms follows from the dictates of human reason.\textsuperscript{108} For Bloomfield, the issue with mythic secondary responses is not necessarily their existence or their prevalence among laymen. Instead, the problem lies in the fact that when linguists attempt to correct an inaccurate secondary response, they are frequently countered with a \textit{tertiary response}: a rebuke on the part of the linguist’s opposite that “is hostile,” “contemptuous” or “angry.”\textsuperscript{109} In other words, Bloomfield holds that there is a common scenario in which the believer of a mythic secondary response rejects the linguist’s scientific correction, and then proceeds to maintain their original, mythic idea about language. The tertiary response signifies the dismissal of the linguist’s \textit{scientific} insight. It indicates that the linguist is generally at odds with lay society.

3.2.1 An Analysis of History in Bloomfield

Within the course of this description, Bloomfield construes the purposeful removal of animisms and teleologies as being a criterion that is universal to the sciences, at least to the ones that are “successful.”\textsuperscript{110} It is in making this point that we see Bloomfield turn to the past of science. It enables him to demonstrates that he is complying with norm of universalism, while also showing that his peers (i.e. the animists/mentalists) are not. Bloomfield, for instance, writes the following:

Non-animate procedures and statements are simple necessary things, carried on without much comment until they are systematized; only then do they arouse hostility. From its beginnings, in the person of Galileo, modern science has been assailed as cynical impious, and superficial. Our grandfathers witnessed this struggle in the matter of geology and biology. It is an interesting trait of culture that scientific workers in domains from which animisms and teleology have been banished feel free to demand the use of these notions in less developed branches of science, such as our own.\textsuperscript{111}

\textsuperscript{109} Bloomfield, “Secondary and Tertiary Responses,” 49.
\textsuperscript{110} Bloomfield, “Secondary and Tertiary Responses,” 55.
\textsuperscript{111} Bloomfield, “Secondary and Tertiary Responses,” 55.
Bloomfield tells us here that one of founders of modern science — in this case, Galileo — was persecuted because he tried to exclude animisms and teleologies from a codified set of “procedures” and “statements.” He then says that disciplines like geology and biology have continued Galileo’s work — that they, too, have been against the use of these kinds of explanations. By moving from Galileo to the unnamed biologists, Bloomfield creates a timeline of scientific practice. He starts with the beginning of science in the seventeenth century and then progresses to the later time of his “grandfathers” — which, in this case, is presumably a reference to the biologists of the nineteenth-century. As indicated above, the timeline suggests that the removal of teleologies and animisms has been a “pre-established” standard in the sciences. It is, moreover, rendered as a standard that characterizes the very process of practicing science. As such, it is not standard that the scientist can freely choose to ignore. Bloomfield’s reading of history thus implies that he is acting as a true scientist, since he knows that science does not endorse the use of either animisms or teleologies. He becomes the authoritative practitioner. The passage consequently becomes a critique of the mentalists. They become figures who are practicing myth or, put differently, the opposite of science. This then makes them appear as if they were untrustworthy individuals.

Bloomfield also suggests that he is using historical reference as a means to realigning the present of linguistics with the past of a science. The endeavor indicates that Bloomfield is committed to seeing the flourishing of his scientific peers. He recognizes that linguistic science cannot succeed if it ignores the past – if it refuses to collaborate with its ancestral notions. In the passage cited above, we see Bloomfield bemoaning the fact that his peers are unaware of

science’s history. He, for instance, claims that society has always challenged scientific disciplines, specifically when they attempt to establish ‘non-animistic’ or ‘non-teleological’ frameworks. According to Bloomfield, this challenge could be seen in Galileo’s experience with the church or in the history of biology or geology. The problem for Bloomfield is that his peers seemingly do not know of this struggle and, further, that they seemingly do not know of scientific principles, since they want to use animisms use animisms and teleologies in the study of language. In wanting this, however, these scientists are betraying their own disciplinary values and are giving credence to an approach to linguistics that is not scientific. It becomes clear that Bloomfield employs historical reference to not only admonish his peers but also to educate them. The topic of history hence expresses the fact that Bloomfield’s work is for the community – in other words, that he observes the norm of communalism. This thereby confers an ethical dimension to Bloomfield’s textual character.

At the same time, the passage offers reassurance to scholars who have the same view as Bloomfield. He is, after all, contending that people who share his thinking are under attack — that like Galileo, they are being persecuted. The reference to Galileo, however, indicates that eventually they will be proven correct and that society will recognize them as being on the true path of science. Bloomfield is thus being of service to both his detractors and his supporters.

3.2.2 A Brief Synopsis of Spitzer

In his response to Bloomfield, Spitzer tries to make the case that the mentalist program is superior to the “mechanistic” one.114 Bloomfield was, of course, a proponent of the latter. To make this argument, Spitzer highlights the issues that are inherent to and a consequence of

mechanistic practice. One major issue, according to Spitzer, is the fact that the mechanist cannot account for all the aspects of human language. In particular, the mechanist cannot theorize about the impact that linguistic art forms, such as poetry, have on the soul of their readers. This is due to the fact that the mechanist is waiting for the word soul to be “redefined…in terms of biology and sociology.” The mentalist, however, can speculate into the nature of the human soul, because they realize that there is a "creative force" within humans – and whatever that eventually represents in biological terms is beside the point, because science always starts with entities that are linguistically imprecise. In short, Spitzer thinks that the mechanistic makes linguistics a discipline with a very limited purview. That is not, however, the only problem caused by mechanistic practices. Spitzer, for instance, also contends that the mechanists are helping to cause cultural “disintegration,” since they want scholars to forget the meaning of terms like conscience and anger. The obvious implication of this contention is that mentalism is the moral alternative: if a scholar does not want to ruin civilization, then he will embrace terms like God and soul. A third issue, says Spitzer, is that the mechanistic program has been unsuccessful. Spitzer explains that the mechanists have alleged to have done “better” work than their predecessors. According to Spitzer, the mechanists are not, however, telling the truth. In fact, it his opinion that the mechanists have only restated the views of nineteenth-century linguists. This means that the mechanists have not actually made any progress. More specifically they have not succeeded in turning linguistics into a “biologico-sociological” pursuit, at least in

115 Spitzer, “Answer to Mr. Bloomfield,” 245-246.
116 Spitzer, “Answer to Mr. Bloomfield,” 246.
117 Spitzer, “Answer to Mr. Bloomfield,” 246.
118 Spitzer, “Answer to Mr. Bloomfield,” 250.
the eyes of Spitzer. In listing these issues, Spitzer clearly wants his readers to come to the judgement that mechanical science is unacceptable.

3.2.3 An Analysis of History in Spitzer

Within this critique, Spitzer provides the reader with a brief account of the scientific past in order to challenge Bloomfield’s version of history. In particular, he argues that mentalism is a time-honored principle of scientific practice. In so doing, he adopts Bloomfield’s strategy of ascribing his own views to past figures, with the hope that it will demonstrate his commitment to the standards of science and then confer authority to his textual character. Spitzer, for instance, writes the following:

The scientific Descartes thought that there is no ‘scientia athei’ since, without the certitude in God, science would be bereft of all certitude … in fact, the greatest mathematicians and physicists, Pascal, Malebranche, Leibniz, Newton were believers, i.e. mentalists (not to forget Einstein: ‘Is this calculation beautiful enough and simple enough for God to have thought it out?’). The men who have known the most about science did not work toward weakening man’s belief in his soul.

Like Bloomfield, Spitzer creates an implicit timeline of science. He starts with the early mathematicians and physicists of the seventeenth century and eventually progresses to a more contemporary figure — in this case, Einstein. Spitzer then contends that all of these scientists — who he openly regards as being authorities — were proponents of mentalistic discourse. In fact, he says that it was the very thing that they used to judge the quality of their scientific work. In some cases, it was even believed to be the thing that made science a conceivable undertaking. Given Spitzer’s reading of history, mentalism becomes the guiding criterion of the sciences. If mentalism had been such a constant for past and present thinkers, then surely one could not think

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119 Spitzer, “Answer to Mr. Bloomfield,” 247.
120 Spitzer, “Answer to Mr. Bloomfield,” 249.
that mentalism that it stood in opposition to the principles of science practice. As we saw previously with a Bloomfield, a consequence of this discussion is the suggestion that Spitzer is acting with authority. He acquires both the intelligence and the credibility of the sound scientist who does not deviate from tradition. It indicates, in turn, that the mechanists are not conforming to science’s universal principles – that their course of action is, in truth, not scientific.

Spitzer’s discussion of past thinkers also reveals his dedication to communalism. We see the norm’s fulfillment when Spitzer declares the following:

The attempt to ignore the human soul as a creative entity…must destroy, along with the words of language, the science of language as a creative utterance of man, and thereby destroy the basis for any science — since, according to Descartes, certitude comes to science only with the possibility of inner evidence.\footnote{Spitzer, “Answer to Mr. Bloomfield,” 249.}

In this passage, Spitzer claims that mechanistic thinking threatens to ruin linguistics. According to Spitzer, this is due to the fact that science relies upon the creativity of man, such as upon man’s animistic concepts. Put differently, Spitzer believes that science stems from the human soul — from the very thing that the anti-mentalists want to deny. To exemplify this thought, Spitzer again turns to a historical figure — in this case, Descartes. He contends that Descartes believed in an animistic entity (i.e., God) that justified and encouraged his scientific speculations. In mentioning Descartes’s use of animisms, Spitzer is trying to reconnect the past and the present – he is trying to maintain the link that Merton regards as essential to the success of science. For Spitzer, this becomes the task of preserving the scientific study of language, since mechanistic thinking threatens to abolish the things that made science successful. Recalling Bloomfield, Spitzer’s discussion of history has the effect of making him seem like the ethical practitioner of science.
3.2.4 An Analysis of History in Chomsky

Like Bloomfield and Spitzer, Chomsky deploys historical reference in order to suggest that his version of linguistics agrees with the traditional standards of the sciences. Consider, for instance, the following passage:

It is important to emphasize that seventeenth-century rationalism approaches the problem of learning — in particular, language learning — in a fundamentally non-dogmatic fashion. It notes that knowledge arises on the basis of very scattered and inadequate data and that there are uniformities in what is learned that are in no way uniquely determined by the data itself. Consequently, these properties are attributed to the mind, as preconditions for experience. This is essentially the line of reasoning that would be taken, today, by a scientist interested in the structure for which he has only input-output data…Hence the charge of a priorism or dogmatism often levels against rationalistic psychology and philosophy of mind seems clearly to be misdirected.122

Chomsky tell us here that the rationalists (i.e., the Cartesians) of the past act like the scientists of the present. In particular, he says that they have allowed the data — in this case, the input and output information — to dictate what they believe to be true of language learning. Whereas the empiricists have decided to ignore this information and have thus made a series of unwarranted assumptions about language acquisition. Chomsky then explains that traditionally the opposite has been considered true of the rationalists – they have, in other words, been thought of as the individuals who disregard data and observation. What is then significant about this passage is the fact that Chomsky calls the rationalists of the past non-dogmatic researchers.123 In calling them “non-dogmatic,” Chomsky is associating the Cartesians with a criterion that scientists try to always follow: they attempt to never have any pre-conceived ideas about what is true of a given

123 According to both Merton and Prelli, the absence of dogmatism is indicative of organized skepticism – a norm that they suggest is different from universalism. I, however, believe that organized skepticism is just another criterion that scientists support as a time-honored tradition, so I hence have folded it into a discussion of universalism.
By making this association, Chomsky is suggesting that proper scientists have always been opposed to dogmatic thinking – the Cartesians, for instance, knew that dogmatic explanations were unsatisfactory. This, of course, implies that the empiricist (or the non-Cartesians) have never been conducting their research in a proper fashion. In being a rationalist/Cartesian, Chomsky is thus choosing to honor the universal standard of being a non-dogmatic researcher. This has the effect of then making Chomsky seem like a reputable scientist.

Beyond being non-dogmatic, Chomsky also suggests that the Cartesians honored the scientific standard of not only finding facts about natural phenomenon but then also trying to offer an explanation of them. This facet of Cartesianism distinguishes them from modern thinkers who either disregard the fact that language is creative or resort to an analysis of linguistic behavior that is purely descriptive, at least according to Chomsky. In other words, modern scholars have not recognized “previously established knowledge” and have thus abandon the norm of universalism. Chomsky, for instance, writes the following:

Evidently, neither La Mettrie nor Bougeant comes to grips with the problem raised by Descartes – the problem posed by the creative aspect of language use, by the fact that human language, being free from control by identifiable external stimuli or internal physiological states, can serve as a general instrument of thought and self-expression rather than merely as a communicative device of report, request, or command. Modern attempts to deal with the problem of intelligent behavior are hardly more satisfactory. Ryle for example in his critique of “Descartes’s myth” simply avoids the issue entirely. He claims that the Cartesians should have been “asking by what criteria intelligent behavior is distinguished from non-intelligent behavior”…whereas Ryle is content simply to cite the fact that “intelligent behavior” has certain properties, the Cartesians were concerned with the problem of accounting for such behavior in the face of their inability to provide an explanation in mechanical terms…One may choose to ignore these problems, but no coherent argument has been offered that suggests that they are either unreal or beyond investigation.

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In this passage, Chomsky informs the reader that scientists have advanced little in the study of language and mind. This is due to the fact that scholars have been ignoring Descartes’s findings. The finding here is, of course, the creative aspect of language use – a facet of human behavior that suggests the relative freedom of humans as a species, since it indicates that humans have the ability to do certain things, such as having thoughts that are undetermined by the environment. Chomsky names Gilbert Ryle, a prominent philosopher of science from the twentieth century, as being an individual who has disregarded the creative aspect of language and mind. Furthermore, Chomsky says that Ryle’s decision is not justified by a “coherent” form of argumentation. Put differently, Chomsky contends that there is nothing that indicates that Descartes was wrong about the nature of linguistic performance. Clearly, Chomsky is accusing Ryle of not having a rational contention. This then indicates that Ryle has not been offering a productive account of human behavior, since he is unwilling to offer an account for the facts that Descartes put forward. This, in turn, makes Chomsky seem like the proper scientist – the individual who reasonably acknowledges what has been determined to be true and who ultimately seeks to extend the nature of that information.

Chomsky also uses history to become more aligned with the norm of communalism, a rhetorical tactic that again resembles the work of both Bloomfield and Spitzer. Take, for instance, the following passage from the introduction of *Cartesian Linguistics*:

Modern linguistics, however, has self-consciously dissociated itself from traditional linguistic theory and has attempted to construct a theory of language in an entirely new and independent way. The contributions to linguistic theory of an earlier European tradition have in general been of little interest to professional linguists, who have occupied themselves with quite different topics within an intellectual framework that is
not receptive to the problems that gave rise to earlier linguistic study or the insights that it achieved. 127

In this passage, Chomsky portrays his peers as turning their backs on the past — in this case, on a seventeenth-century tradition of trying to explain how it was possible for a finite human mind to have an infinitely creative language. 128 Chomsky’s point is that his peers are not focused on the ‘right’ things and are, hence, wasting their own time and that of their interlocutors. If they were, in turn, to conduct themselves in the way that past scholars did, in part by addressing the same problems, then they would be on a more productive course. After all, it had been a fruitful mode of inquiry from the seventeenth century up until the early nineteenth – that is, until linguists had decided otherwise. Put simply, Chomsky is implying that he is having to reintroduce an older framework of language study because the modern version has failed. He positions that older framework as being an entity that is going to boost the welfare of his peers. In so doing, he comes across as an ethical scientist.

Although I have worked to establish the similarities between the historical rhetoric of Bloomfield, Spitzer and Chomsky, I would also like to acknowledge, albeit briefly, that there are differences. I do not want to give off the impression that I think that their works are identical. One obvious difference is the following: Chomsky treats the historical figures in Cartesian Linguistics as if they were researchers of language. Chomsky then contends that his own ideas about language mirror some of theirs. A parallel suggestion cannot be found in either Bloomfield or Spitzer. They never claim that someone like Galileo had thoughts on language. Instead, they both make more general claims about the history of scientific practice.

127 Chomsky, Cartesian Linguistics, 57.
128 Chomsky, Cartesian Linguistics, 70.
4.0 Objections and Questions

In response to my argument, one may say that I have downplayed or, for that matter, ignored the general fact that linguists and scientists were unaware of the past. From there, one may argue that the past being a powerful entity was an impossibility. In making this objection, one might refer to two of the claims that are found in Falk’s essay. She, for instance, describes how structural linguistics “was seen by many as a break with the past.”¹²⁹ She also notes how scientists were educated with textbooks that “omitted” history.¹³⁰ I do not think, however, that either of these claims necessarily establish complete ignorance on the part of twentieth-century scholars. I would respond to the first claim by saying that if linguists considered themselves to be “breaking” from previous thinkers, then they would have needed to know those thinker’s views. Otherwise, they could run the risk of only saying the same thing and, hence, lack novelty. I would respond to the second claim by saying that it is somewhat misleading. Sure, science textbooks occlude primary source material, but that does not account for the fact that those materials eventually assume importance. A professional scientist, for instance, is going to read older works, if it is his goal to solve an age-old problem.¹³¹ In other words, I think that this objection would be overstating the actual evidence. I also think that this objection ignores the fact that I have tried to include other thinkers (i.e., Bloomfield and Spitzer) in this discussion of the past.

¹³⁰ Falk “Turn to the History of Linguistics Noam Chomsky and Charles Hockett in the 1960s,” 141.
One might also question whether the norms that I mention are relevant to twentieth-century scientists. In addition, one might ask whether the attempt to embody these norms was a common rhetorical maneuver at that time. I assume that the motivation for asking this pair of questions stems from the intuition that the culture of science has changed over time. Indeed, this intuition is something that has animated research in the rhetoric of science. Peter Walmsley, for instance, describes how eighteenth-century scientists wanted a text “to mirror, in its structure, an omnivorous openness to nature as it presents itself to the senses.”\(^{132}\) Obviously, this is no longer a desire among scientific writers. I would thus respond to these questions by saying the following: the rhetorician whose work I am extending, Lawrence Prelli, was writing in the 1980s and the 1990s. He was, in other words, writing about the norms of twentieth-century science. In fact, Prelli makes his point about the embodiment of norms and its subsequent rhetorical effect through an analysis of Thomas Sebeok – one of Chomsky’s immediate contemporaries in linguistics. The same can also be said of R.K. Merton. He was writing about the nature of scientific practice in the 1940s. This makes his work contemporary with the work of Bloomfield, Spitzer, and Chomsky. There is thus little reason to think that the norms that I discuss were not relevant to the scientists of the twentieth century.

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Epilogue

In lieu of a conclusion, I would like to sketch out some areas where my project could be extended or complicated. The value of doing this is that it demonstrates both the reach and the limits of my ideas.

In the first chapter, I looked at a series of primary sources that commented upon Descartes. From them, I drew the conclusion that Descartes possessed external authority. I, however, only discussed a small number of the materials that are currently available. For instance, there seem to be at least a thousand articles written about Descartes from the start of the twentieth century up until the publishing of Cartesian Linguistics (i.e., 1966). There is consequently an opportunity to continue researching how Descartes was understood. One, for instance, could research the role that Descartes played in histories of the scientific revolution. I also imagine that it would be possible to compile a number of sources that were critical of Descartes. I do not think that this would undermine my own contention, but I do think it would complicate the narrative that I have been telling.

A related pursuit would be to study the reception of the other historical figures that are found in Cartesian Linguistics. One, for instance, could try and see if any of them were intellectual authorities outside of the text. Before settling on the topic of Descartes’s authority, I actually did some initial research into the reception of Géraud de Cordemoy. In particular, I looked at work published by Albert Balz and Leonora Cohen Rosenfield. They seem to be among the limited number of scholars who wrote about Cordemoy before Chomsky. From

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133 I arrived at this number through conducting searches on Google Scholar.
134 Balz and Rosenfield’s works are respectively entitled as follows: “Géraud de Cordemoy, 1600-1684” and From Beat-Machine to Man-Machine.
reading their work, I ultimately came to the conclusion that Cordemoy did not possess external authority. I did not, however, do this for every historical figure that Chomsky references.

A final avenue of research would be to study Descartes’s relation to Chomsky outside of \textit{Cartesian Linguistics}. I am not suggesting by this that one proceeds to compare their respective ideas – scholars have already done that. Instead, I am claiming that one could study the rhetorical function of Descartes in Chomsky’s other work. One could then ask whether Descartes still serves the purpose of bolstering Chomsky’s textual character or ethos. We know that this would be possible because Chomsky has continued to talk about Descartes. In 2014, for instance, Chomsky said that Descartes was “a serious and honest scientist” who “invoked a new principle to accommodate these non-mechanical phenomena, a kind of creative principle.”\footnote{Chomsky, “Science, Mind, and Limits of Understanding,” https://chomsky.info/201401.} This form of research could even be extended to cover the other external authorities that Chomsky frequently references. He has, for instance, discussed Plato’s epistemology, the science of Galileo, Newton’s invalidation of Cartesian dualism, and the skepticism of Hume. Such investigation would result in a rhetorical analysis of how those figures serve Chomsky’s purposes as a rhetor of science. I do suspect, however, that it would further confirm what we have been working to establish in this paper: that the authority of history plays a substantial role in Chomsky’s arguments on language and mind.
Bibliography


