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**ROGER BACON AND MARTIN JOOS:  
GENERATIVE LINGUISTICS' READING OF THE PAST \***

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1. *Introduction*

Academic disciplines, like people, differ in their relationships with their own pasts. Some look backward admiringly and feel privileged to carry forward the undone work of those who came before them; others rebel against the past, dismissing it as either irrelevant to their concerns, or wrong, or both irrelevant and wrong. Like people, many disciplines fall somewhere between these two romantic—perhaps essentially narcissistic—extremes. Or, they selectively represent the past as a checkerboard of successes and failures, intriguing insights and missed opportunities, sometimes assigning those judgments on the basis of how closely earlier work anticipated modern preoccupations. No doubt generative linguistics is not alone in maintaining a complex, contradictory, relationship with its disciplinary ancestors. On the one hand, it participates in contemporary culture's glamorization of all things new. Even within its own 45-year history, generativism routinely invests the benefit of the doubt in whatever is novel (a new framework, model, theory, principle, analysis), rather than in whatever came before. And whatever came before generativism itself is rarely considered to have relevance to the present day. Writing in 1994, Judith Strozer exemplified a widespread opinion of generativists in declaring that "with little or no exaggeration we could say that [the study of language] has advanced more in the last ten or fifteen years than in the previous thirty centuries" (1994:ix), to the extent that with the introduction of Chomsky's principles and parameters framework, "the

whole of the traditional approach to language of the last couple of thousand years suddenly became obsolete” (p.94). Even among generativists who might consider Strozzer’s claims too sweeping, few treat previous study of language as a resource which has continued utility. Fewer still would seem to conceive of the history of linguistics as a corpus worth examining in its own right independent of whatever it might offer to a linguist grappling with the current state of the discipline. Instead, there is a sense in which generative linguistics is carried out as if by a cohort of hardy rock-climbers inching up the face of a steep precipice. To look backward, or to disengage from the demands of the present enough to perceive it as one local context among many others, would be to risk vertigo or even threaten one’s footing. The only relevant positions are the one where one is poised at present, and the position immediately ahead of one.

So on one hand an ahistoric perspective is, arguably, the dominant one. But on the other hand, there is an outstanding exception to the rule that generative linguistics does not attend to its past. The center of that exception is in Noam Chomsky’s own work, epitomized in his 1966 book *Cartesian Linguistics*. In this text Chomsky most fully developed his thesis that generative linguistics can claim a distinguished ancestry in, among others, the writings of René Descartes, the rationalist grammarians of late seventeenth-century France, and Wilhelm von Humboldt. From the early 1960s Chomsky has frequently adverted to what he sees as the historical background to his own work, reiterating and sometimes elaborating on the theme of *Cartesian Linguistics* in Chomsky (1964, 1965, 1972, 1986, 2000). Few present-day generativists seem to pay much attention to Chomsky’s historical claims so that, for example, *Cartesian Linguistics* probably has only a marginal presence on the reading lists of graduate students in linguistics. But the book has provoked very powerful responses—both positive (Bracken 1984, Otero 1995) and negative (Aarsleff 1970, Percival 1972)—such that commentary on it amounts to a substantial critical industry among historians and philosophers.<sup>i</sup>

My goal here is not, however, to augment the secondary literature on *Cartesian Linguistics*. It would be imprudent to do so, because virtually everything that could be said about Chomsky’s historiography seems to have already been said, emphatically, several times over. In any case,

although Chomsky's Cartesianism is the most striking and best-developed attempt to define the position of generative grammar vis-à-vis earlier study of language, it does not exhaust the field's commentary on its own past. Putting aside *Cartesian Linguistics* and its reception, two intriguing passages from pre-generative language science stand out as often cited in discussions of Chomsky's ideas. Both generativists and linguists with other orientations have employed these passages for various purposes, but my focus is on their use by the former group. Typically, neither text is elaborated upon at length. Yet each appears either frequently enough, or in sufficiently salient contexts, to be in part responsible for notions that students of linguistics form about the history of the discipline and continuities and discontinuities within that history. There is reason to believe that both passages have been substantially misconstrued in the service of defining a particular relationship between generative linguistics and earlier scholarship. Those misconstruals have become conventional, and are passed from hand to hand without being questioned, despite the availability of evidence challenging them. Therefore the employment of these two texts seems less to signal genuine inquiry into other cultures' understanding of language, than to signal a habit of using the past to confirm the agenda of the present.

## 2. *Roger Bacon*

Roger Bacon, who lived from around 1214 to 1292, is the author of the first of these two texts.<sup>ii</sup> Bacon was an irascible Franciscan friar educated at Oxford and Paris, and a formidable, if maverick, scholar who wrote on philosophy, mathematics, optics, geography, alchemy, astrology, and languages. He worked in the context of the then-emerging school of speculative grammar, a branch of medieval scholastic philosophy.<sup>iii</sup> The speculative grammarians, or "modistae", drew upon the Greco-Roman tradition of grammatical analysis to develop a theoretical ("speculative") language science, as they defined it in thirteenth-century Aristotelian terms. To do so, they shifted the object of inquiry of that tradition away from the properties of Latin, toward the study of what makes a language, a language. The modistae aimed to define the principles governing the necessary (hence universal) properties of the genus of language. They

assumed *a priori* the essential unity of language, cognition, and reality. In the words of the speculative grammarian Boethius of Dacia, “There is but one logic for all tongues, and hence also just one grammar”.<sup>iv</sup> Speculative grammarians built up a complex terminology for analysis of the relationships between words, concepts, and things. They did so without concern for linguistic diversity, in either principle or practice. The modistae’s claims about the structure of language were not built on cross-linguistic evidence because to them, all that was needed to write an accurate universal grammar was available in the language in which, and about which, virtually all medieval language science was carried out, namely Latin.

Roger Bacon lived at a time when speculative grammar was first being articulated, and many have identified him with its approach and concerns. His reputation in modern linguistics derives in particular from a single passage of one of his lesser works, the *Greek Grammar*, where Bacon gives his rationale for comparing the grammars of Greek and Latin:

(1) Cupiens igitur exponere grammaticam grecam ad vtilitatem latinorum necesse est illam comparari ad grammaticam latinam, tum quia latine loquor vt in pluribus, sicut necesse est, cum linguam grecam nescit vulgus loqui, tum quia grammatica vna et eadem est secundum substantiam in omnibus linguis, licet accidentaliter varietur, tum quia grammatica latina quodam modo speciali a greca tracta est, testante Prisciano, et sicut auctores grammaticae docent euidenter. (Nolan & Hirsch 1902:27)

(2) Since I want to describe Greek grammar for the benefit of Latin speakers it is necessary to compare it with Latin grammar both because I speak Latin for the most part as is necessary since the great mass does not know to speak Greek, and because *grammatica* is one and the same in all languages although there are accidental variations, and because Latin grammar in a certain particular way is derived from Greek grammar, as Priscian testifies, and as authoritative writers on *grammatica* openly teach. (Transl.

Hovdhaugen 1990:123–124)

The key text is the assertion that “the substance of grammar is one and the same in all languages, even if there are accidental variations”.<sup>v</sup> Scholars of philosophy and grammatical theory in the Middle Ages have often quoted these words, interpreting them as an expression of the modistic notion of universal grammar. Table 1 lists texts which cite the passage, indicating some of the

paths of its transmission.<sup>vi</sup> The ultimate source of many references to the passage is Charles (1861). This “invaluable pioneer work” (Easton 1952:237) contains not very much about Bacon the grammarian, but it reproduces the famous passage in an extract from the then-unpublished fourteenth-century Oxford manuscript of the *Greek Grammar*. Citations of Bacon via Charles’ text have been further mediated through Wallerand (1913), which incorporates the passage in a study of the work of the speculative grammarian Siger de Courtrai, and Grabmann (1926), which cites Wallerand’s citation of Bacon without reproducing the passage verbatim. Nolan and Hirsch’s (1902) edition the Oxford manuscript has also been widely consulted.<sup>vii</sup> Scholars of the history of linguistics like R. H. Robins (1921–2000) and Geoffrey Bursill-Hall (1920–1998) probably appropriated the “one and the same” passage from medievalists. A subsequent generation then carried Bacon’s words forward from texts like Robins (1951, 1967) or Bursill-Hall (1971) into diverse writings about linguistics.

< See Table 1 >

In particular, the passage shows up in discussions of Chomsky’s universal grammar. Chomsky himself opens *Knowledge of Language* with an approving quotation of Bacon’s words, following a brief reference to Gottfried Wilhelm Leibnitz (1646–1716) and preceding one to Nicolas Beauzée (1717–1789):

(3) The study of language has a long and rich history, extending over thousands of years. [...] A common conception was that “with respect to its *substance* grammar is one and the same in all languages, though it does vary *accidentally*” (Roger Bacon). The invariant “substance” was often taken to be the mind and its acts; particular languages use various mechanisms—some rooted in human reason, others arbitrary and adventitious—for the expression of thought, which is a constant across languages. (Chomsky 1986:1)

Framed in this way, Bacon’s words have achieved the status of a slogan supporting the venerable ancestry of the concept of universal grammar, such that even scholars who would not identify themselves as generativists freely knit the passage into expositions of Chomskyan linguistics. George Steiner associates it with Chomskyan universal grammar in (4), as does Umberto Eco in (5).

(4) To the twelfth-century relativism of Pierre Hélié, . . . Roger Bacon opposed his famous axiom of unity:

‘Grammatica una et eadem est secundum substanciam in omnibus linguis, licet accidentaliter varietur.’

Without a *grammatica universalis*, there could be no hope of genuine discourse among men, nor any rational science of language. [ . . . ] Amid immense diversities of exterior shape, all languages are ‘cut from the same pattern.’ (Steiner 1975:94) [N. B. Steiner’s “cut from the same pattern” is an evocation of Chomsky’s (1965:30) “cut to the same pattern”.]

(5) [The context is a discussion of whether Dante could have been influenced by the speculative grammarian Boethius of Dacia] . . . it is not necessary to read Boethius to know that grammar has one and the same substance in all languages, even if there are variations on the surface, for this assertion is already found in Roger Bacon. [Thus, whether or not Dante knew Boethius’ work,] he could have conceived of the *forma locutionis* given by God as a sort of innate mechanism, in the same terms as Chomsky’s generative grammar . . . (Eco 1995:44–45)

Citation of Bacon’s words in contexts like these implies that he is well-established as an early-medieval proponent of universal grammar, and moreover that speculative grammar can be readily linked to modern generativism.<sup>viii</sup> Bacon’s reputation seems to rest on the narrow foundation of this one remark.

Several recent reassessments of Bacon’s work, however, have argued that insofar as his words have been taken as an early manifesto of speculative grammar, they have been misconstrued. Rosier (1984), Bourgain (1989), and Hovdhaugen (1990) have each rejected the conventional reading of the famous “one and the same” passage. Bacon actually had a very different approach to universal grammar, different interests, and different attitudes toward language study, compared to those of the *modistae*. Reassessment of the passage calls into question the relations between Bacon and, on the one hand, speculative grammar, and on the other, modern generativism—relations which scholars have sometimes implied, sometimes asserted outright.

It is important to review the evidence which has led some to re-evaluate what Bacon meant. Paetow (1910:44) represented Bacon’s legacy overall as a scholar “whose fate it was to

champion so many worthy but losing causes”. Going against the grain of his time, Bacon promoted an experimental approach to science, and argued tirelessly for the importance of foreign language study. Knowledge of languages was critical, Bacon claimed, as “the first gate that led to the acquisition of wisdom” (Hirsch 1914:103). He deplored the language skills of translators and writers who came before him in arrestingly blunt terms: one predecessor was “the worst and most stupid” of them all; an entire group he dismissed as “one and all liars”; others were “frauds”.<sup>ix</sup> Knowledge of Hebrew, Greek, Arabic, and (ideally) Chaldean was according to Bacon essential to surmount the inadequacies of translations of the scriptures and the Greek philosophical and scientific canon. Bacon viewed Latin as a poor tool for the representation of scientific or religious knowledge. He criticized the language for lacking an adequate technical vocabulary, so that translators had to leave many words untranslated; moreover, the status of Latin was in his eyes diminished by the fact that it had never been the medium of divine revelation.

So for Bacon knowledge of foreign languages was essential to intellectual and spiritual life. This motivated him to write on diverse linguistic matters, from figurative language to phonology. Hirsch (1899:65) wrote that Bacon “possessed the true philological instinct” in his discussions of dialects and loan-words, and in his speculations about historical relationships among languages. Bacon’s philological bent also shows in the comparative nature of what has survived of his plan to write grammars for Greek, Hebrew, and Chaldean. His *Greek Grammar* compares Greek and Latin, addressing topics ignored by the modistae such as phonological differences between the two languages, and Greek-into-Latin loan-words.

It is near the beginning of Part 2 of this unorthodox work that the famous passage appears. What did Bacon mean, when he wrote that “the substance of grammar is one and the same in all languages, even if there are accidental variations”? Hovdhaugen (1990:124–125) lists three points on which Bacon’s views contrasted with those of the speculative grammarians, all relevant to the interpretation of the “one and the same” remark. First, unlike the modistae—for whom Latin comprised all the data relevant to linguistic investigation—Bacon was interested in



comparing grammars across languages. Second, he speculated little about the nature of universal grammar in the modistic sense of the necessary structure of language, based on *a priori* assumptions about the unity of language, thought, and reality. Third, Bacon was invested in examining the properties of individual languages, whereas the speculative grammarians produced little such work. On this point, Rosier (1984) heightens the contrast between Bacon and the speculative grammarians with reference to Bacon's interest in figurative language. The modistae excluded figurative language from consideration because it failed to meet their criterion of *congruitas*, the requirement that combinations of words share the same "modes of signifying", i.e. that they be syntactically congruent (Covington 1984:62). Bacon expected the rules of a language to sanction both figurative and non-figurative usage.

In Hovdhaugen's analysis, then, these characteristics distinguish Bacon's orientation from that of the speculative grammarians and inform us about how to interpret the famous "one and the same" line. That line appears following a passage in which Bacon illustrates the idea that every language comprises various dialects. He then highlights the comparative basis of his grammar: one reason why it makes sense to compare Latin with Greek is because "the substance of [*grammatica*] is one and the same in all languages, even if there are accidental variations". Bacon then remarks that comparison of the two grammars gives access to both the nature of Greek and the nature of Latin. Nowhere in this context does Bacon refer to typical modistic preoccupations like the inventory of the modes of signifying, or the scientific basis of grammar in its attention to the necessary properties of language, or the unity of grammar, cognition, and reality.

On this evidence Hovdhaugen argues that what Bacon meant by "*grammatica*" here is not the *grammatica* of the modistae. Rather, the word should be translated in this context as "linguistics, [the] study of language, [the] description of language, [the] science of describing and analysing language" (Hovdhaugen 1990:127). The famous passage is, by these lights, a claim for the universality of the methodology for study of language; it means something like "The technique of linguistic analysis and description holds for all languages, with some minor variation".

Therefore, what Bacon was trying to communicate in this passage is not a characterization of the speculative grammarians' universal grammar. Bourgain (1989) reaches a similar interpretation. He claims that what was universal for Bacon was a particular method of studying language, based on the traditional analysis of sentence constituents. That method was one "*qui fait de la langue affaire de raison*" (Bourgain 1989:328) in the sense that it required explicit metalinguistic knowledge, not in the sense that Bacon identified grammar as an "invariant 'substance' [ . . . ] taken to be the mind", to use Chomsky's (1986:1) expression.

If Hovdhaugen, Rosier, and Bourgain are right, then the famous "one and the same" remark is by no means representative of modistic universal grammar, despite its modern reputation. Bacon's work has a distinctly different spin from that of the speculative grammarians: he was committed to knowledge of languages rather than to knowledge of language; to questions of methodology; and to languages and linguistic topics which the modistae neglected. Bacon even inverted the pedestal on which the Middle Ages placed Latin as the best exemplar of universal grammar, since he considered it lexically crude and inferior to Hebrew, Greek, and Arabic. All these aspects of Bacon's work point out its originality and non-conformist nature relative to medieval grammatical theorizing.<sup>x</sup>

It may be, then, that Bacon's modern reputation as one who distilled the gist of medieval universal grammar in a famous epithet is ill-conceived. But that reputation, once established, seems destined to survive independently. For example, Campbell (2001:84) incorporates Bacon's famous text into an exposition of the history of linguistics, charging Bacon with relatively more responsibility for the development of medieval universal grammar compared to his fellow English churchman Robert Kilwardby (d. 1279). Campbell cites Bursill-Hall (1995:131) as his source. But Bursill-Hall (1995) is one of the few treatments of the "one and the same" passage which seems to have profited from recent reassessment of Bacon's role. Bursill-Hall does not refer to Hovdhaugen or Bourgain, and he mentions Rosier's research on Bacon only in passing (p.131). But he frames the famous text rather guardedly, remarking that "Bacon has long been famous for his proposition regarding universal grammar, i.e., 'Grammatica

una et eadem [. . . ], but there is clearly much more to his views on language than that; his was a more practical approach to the study of language and languages . . . ”.<sup>xi</sup> However, when Campbell (2001) cites Bacon via Bursill-Hall (1995), Campbell does not transmit to his own readers Bursill-Hall’s reservations about linking Bacon to speculative grammar. Instead Campbell reiterates the prevailing, apparently irresistible, reading of the passage as an epitome of speculative grammar—even relying as he does on a source which evinces doubt about the validity of that reading.

A particularly interesting and complex illustration of how Roger Bacon’s reputation has been sustained is played out across almost 30 years of publishing history in the case of what is probably the late twentieth century’s best-selling introductory textbook for students of linguistics, Victoria Fromkin and Robert Rodman’s *Introduction to Language*. First published in 1974, this text has been revised and re-published every four or five years, so that it is now in its sixth edition. Moreover, in the year 2000, Fromkin edited a longer, more technical competitor text *Linguistics: An Introduction to Linguistic Theory*. All seven of these books cite Roger Bacon. Over the years from 1974 to 2000, the context of citation shifts so as to highlight Bacon’s assertion of the universality of grammar, and to increase the association of that concept with generative linguistics. The water is muddied somewhat by the fact that the passage attributed to Bacon in all seven of Fromkin’s (co-authored or edited) books is not the famous “one and the same” text. Rather, it is another text, given in (6) in the translation which Fromkin, or Fromkin and Rodman, use consistently:<sup>xii</sup>

(6) He that understands grammar in one language, understands it in another as far as the essential properties of Grammar are concerned. The fact that he can’t speak, nor comprehend, another language is due to the diversity of words and their various forms, but these are the accidental properties of grammar. ROGER BACON (1214–1294) (Fromkin & Rodman 1974:227)

These words probably do not come from Bacon’s writings, although in each citation of them Fromkin, or Fromkin and Rodman, identify Bacon as their author without naming any specific source. The association of Bacon with (6) likely derives from a tradition of quoting, in a single

breath, Bacon's "one and the same" passage and then the text in (6), in that order. Wallerand (1913:43) may have initiated the tradition by providing Bacon's "one and the same" text in footnote 6, then what is likely the Latin original of (6) in footnote 8 on the same page. Wallerand attributes (6) to Ms. Bibl. Nat. de Paris, lat. 16297, fol. 131. Robins (1951) follows suit, with Bacon on p. 77 and a text in English virtually identical to (6) on p. 79, alongside Wallerand's attribution. Likewise for Gilson (1947:405; 1955:313) and Lyons (1968:15–16), both of whom identify Bacon as the author of the "one and the same" passage, then an anonymous scholar as the author of (6). Any of these texts could have been Fromkin and Rodman's immediate source, assuming that they inadvertently extended Bacon's authorship to the passage which traditionally follows it.<sup>xiii</sup> From here, the attribution of (6) to Bacon has passed into cyberspace with its presence on web sites where, in the context of a citation of Fromkin and Rodman's sixth edition, the passage is identified with Roger Bacon.<sup>xiv</sup>

Fromkin and Rodman's use of the passage in (6), and the persistence of its use, is revealing. It reveals, first, that the distinction between Roger Bacon and, plausibly, some contemporary or later, more orthodox, speculative grammarian has gone unnoticed for nearly 30 years. No one involved in the production of these very successful textbooks has recognized what is likely a false attribution of the passage to Bacon.

But that may be merely a pedantic complaint.<sup>xv</sup> What else is revealed is that, whatever the provenance of the passage in (6), Fromkin and Rodman judge it to be so valuable to the intellectual socialization of students entering the field that they have retained it for almost a generation. Fromkin and Rodman's textbook contains profuse quotations, from around 130 to 175 depending on the edition. Many of them seem chosen for their potential to entertain readers or engage their imaginations (e.g. excerpts from the writings of Mark Twain, Ogden Nash, and—inevitably—Lewis Carroll; texts identified as Chinese or Arab proverbs; passages of topical interest taken from contemporary newspapers, etc.). A subset of the total corpus of quotations seems to have the purpose of representing the study of language in earlier periods. From edition to edition, Fromkin and Rodman add to and delete from the inventory of illustrative material

(including that with, and that without, historical content), such that only about a dozen passages relevant to the history of linguistics are retained through all six versions of *An Introduction to Language*. One of those twelve is the passage attributed to Bacon.<sup>xvi</sup> Moreover, the passage is one of only two such quotations which has crossed over from Fromkin and Rodman's book to appear in the drier, less prolix, text Fromkin (2000).

Because the passage in (6) has thus survived many opportunities to be edited out, it seems fair to conclude that Fromkin and Rodman invest the words they attribute to Bacon with particular importance in addressing a readership being inducted into the modern discipline of linguistics. But although commitment to the value of the passage has been sustained, it seems to have been read differently over the years so that it serves varied purposes within these seven textbooks. All six editions of Fromkin and Rodman employ (6) as an epigraph heading a chapter sub-section (sometimes without comment, thereby leaving it up to the reader to construe a relationship between the quotation and the following text). In 1974 and 1978, the words attributed to Bacon head a sub-section late in the book entitled "How Languages Differ". The last words of the quotation, "the accidental properties of grammar", are italicized. The text below reiterates that phrase, asserting that it is those accidental properties which render languages mutually unintelligible. Fromkin and Rodman then illustrate phonological, syntactic, and lexical cross-linguistic variation, concluding that "A theory of language must be able to account for just those differences that actually exist, as well as for all the universal properties which are found" (1974:230). Starting in 1983 with the third edition, the passage heads a sub-section entitled "Learning a Second (or Third or . . . ) Language". Fromkin and Rodman present the critical period hypothesis, expressing pessimism about the capacity of adults to acquire languages non-natively. They state flatly that "learning a language is easier the younger you are" (p.342), and that "children . . . learn languages without even trying, whereas adults do not seem to have this 'talent'" (p.343). No link to the quotation attributed to Bacon is made explicit. In 1988, Fromkin and Rodman remove the italics on "the accidental properties of grammar" in (6), drop the sentence about adults' lack of talent for second-language learning, and subtly shift their

position on the critical period hypothesis: “The younger you are, the easier it seems to be to learn a language” (p.389); “On the other hand, due to the universal characteristics of human language, adults who know one language already ‘know’ much about the underlying structure of every language” (p.390). Again, there is no explicit link to the quotation attributed to Bacon. But granted the erosion of Fromkin and Rodman’s support for the critical period hypothesis, it would seem that the illustrative value of the passage in (6) is now borne more by the first than the second sentence, with the latter newly stripped of its imposed italics. In the fifth and sixth editions, from 1993 and 1998, the sub-section headed by (6) summarizes several critiques of the critical period hypothesis (now depicted in past tense: “It was believed that . . .” (1993:423)). Fromkin and Rodman’s discussion seems oriented to emphasize the continuity of child and adult language acquisition on the grounds that “the same universal innate principles” (p.423) govern them both. The value of passage in (6) may now be that of providing a thirteenth-century testimonial prioritizing the “essential properties of Grammar” over the “accidental properties of grammar”, a reading which makes sense of Fromkin and Rodman’s differential use of upper versus lower case on the word “grammar”.

It is, of course, in no way unexpected that Fromkin and Rodman might change their position on a controversial issue like the critical period hypothesis in the course of updating their textbook. But what stands out is that they do so while maintaining intact the passage attributed to Bacon—the same passage which they had used in 1974 and 1978 to set the stage for “How Languages Differ”. Fromkin (2000) carries it forward into a new context. (6) now appears near the beginning of the textbook, embedded in an introduction to the notion of Chomskyan universal grammar:

(7) The grammars of all languages are constrained by universal ‘laws’ or ‘principles,’ a view which differs from that of many linguists in the pre-Chomsky period some of whom held that languages could differ in innumerable ways. The more we look at the languages of the world, the more support there is for the position taken by Roger Bacon, a thirteenth-century philosopher, who wrote:

He that understands grammar in one language, understands it in another [. . . ] (Fromkin 2000:12)

Thus in Fromkin (2000) the quotation plays a role seemingly complementary to that which it plays in Fromkin and Rodman (1974, 1978), where it introduced discussion of cross-linguistic variation. The versatile employment of this passage is telling.<sup>xvii</sup> It suggests that Bacon has achieved the status of a kind of all-around, utility reference, whose words can provide background to any number of points one might want to historicize. If so, these citations of Bacon's writing—spurious or not—do not really signal interest in his actual ideas. Bacon probably didn't write some of the words attributed to him, and if Hovdhaugen and others are correct, he didn't intend some of the meanings attributed to him. The resulting double incongruity of associating Bacon with generative linguistics seems not to matter, nor even to be noticed, since the purpose of that association is more to ornament the presentation of modern ideas than to inquire into ideas about language propagated by another culture, in another century.

### 3. *Martin Joos*

That Roger Bacon lived in a culture vastly different from ours, in a distant century, lends intrigue to assertions that his ideas about grammar prefigure those of the present day. If it could be shown that—to read Fromkin (2000:12) quite literally—generative linguistics is progressively accumulating evidence which (exactly) supports a notion of grammar fashioned by Roger Bacon in the thirteenth century, that would be a very striking result because of its *prima facie* implausibility. On the other hand, if it were to be demonstrated that generative linguistics shares significant common ground with a school of linguistics whose heyday immediately preceded it, in the same geographical area, that would seem to be an unremarkable example of continuity across successive stages in the development of a field of study. But as is well known, generative linguistics tends to minimize its affinity to its immediate disciplinary predecessor, American descriptive linguistics.<sup>xviii</sup> Instead, generative linguistics represents itself as both strikingly continuous with the distant past, and strikingly discontinuous with the near past. We have seen that citations of the work of Bacon are uncritically repeated as emblematic of continuity across the centuries. The same habit is turned around to serve the opposite purpose, in similarly

frequent and similarly uncritical citations of a different text taken as emblematic of discontinuity between generative linguistics and American descriptivism. That text is from the work of Martin Joos (1907–1978). Fromkin (2000:12) may provide a bridge linking the texts from Bacon and from Joos, in that the paragraph in (7) immediately preceding the quotation attributed to Bacon contains the ghost of a reference to a famous statement by Joos (1957:96) in which he characterized the “American (Boas) tradition” as one which holds that “languages could differ from each other without limit and in unpredictable ways”.

Martin Joos was an American descriptive linguist who worked on such varied projects and topics as the *Linguistic Atlas of the United States and Canada*, Middle High German, stylistics, acoustic phonetics, and post-World War II ACLS-sponsored efforts to publish pedagogical English grammars. Depicting himself as a “notorious dilettante” (1957:356), Joos seemed to have relished the role of an active participant-observer in the development of American linguistics. This is displayed, for example, in Joos’ animated observations on the history of the first 25 years of the Linguistic Society of America (published posthumously in 1986), and in the ease with which, in Joos (1961), he adopted the voice of an engaged insider communicating to an external audience about controversy and consensus within linguistics. It was Joos’ talent, and perhaps his burden as well, to have been remarkably clever with a pen, so that he seems most widely remembered today as the author of a number of pithy remarks and neat turns of phrase which, extracted out of his writings, have achieved apothegmatic status. It was Joos (1961:17) who declared that “Text signals its own structure”, and Joos (1957:108) who depicted the rapid development of American linguistics in the 1940s as due to “the hothouse atmosphere of the wartime work”. Likewise, it was Joos (1950:703) who, speaking for his discipline as he saw it, wryly declared that phenomena which scholars “cannot describe precisely . . . we classify as non-linguistic elements . . . and [then we] expel them from linguistic science”. And then there are two statements, from adjacent paragraphs of the same text, which may constitute Joos’ signature contributions. In one, Joos (1957:96) asserted that “Children want explanations, and there is a



child in each of us; descriptivism makes a virtue of not pampering that child”. In the paragraph immediately above, Joos wrote:

(8) American linguistics owes a great debt to [the stimulating new ideas that were coming out of Europe, specifically from the Cercle Linguistique de Prague]; but in the long run those ideas were not found to add up to an adequate methodology. Trubetzkoy phonology tried to explain everything from articulatory acoustics and a minimum set of phonological laws taken as essentially valid for all languages alike, flatly contradicting the American (Boas) tradition that languages could differ from each other without limit and in unpredictable ways, and offering too much of a phonological *explanation* where a sober *taxonomy* would serve as well. (Joos 1957:96 [and likewise 1958:96; 1963:96; 1966:96; 1968:96])

Joos’ claim that descriptivism avoids pandering to an appetite for explanation has been widely cited, for example by Chomsky (1962a:153 [in paraphrase]); Hymes and Fought (1975:1077), Newmeyer (1980:5), Sampson (1980:106 [in paraphrase]), Katz (1981:74), Moore and Carling (1982:46), Hakuta (1986:69), Harris (1993:271), and Ritchie and Bhatia (1996:5). The assertion that “languages could differ from each other without limit and in unpredictable ways” has achieved even greater currency. It has appeared in works on the history of linguistics such those of Teeter (1964:200), Diller (1971:19, 27; 1978:20, 29), Hymes and Fought (1975:959), Newmeyer (1980:5), Anderson (1985:202, 280), Harris (1993:64, 119), and in texts addressed to other audiences of linguists, students of linguistics, or laypeople, like those of Chomsky (1962b:537; 1964:952; 1986:20–21), Stankiewicz (1966:495), Wardhaugh (1970:127), Partee (1971:8), McCawley (1974:268), Sampson (1975:8; 1980:70; 1997:7), Rusiecki (1976:35), Ferguson (1978:10), Gass and Ard (1980:443), Smith (1989:66; 1999:105), Borsley (1991:1), Botha (1992:84), and Pinker (1994:231–232).<sup>xix</sup> As in the case of the passage from Bacon’s *Greek Grammar*, authors conventionally introduce Joos’ remark as “the often-repeated words of Martin Joos”, thereby acknowledging its status as a kind of proverb.<sup>xx</sup> And also as in the case of Bacon, the conventional interpretation of Joos’ words warrants scrutiny.

There are at least three questions which should be raised about the employment of Joos’ text and its interpretation. The first is, of whom does Joos predicate the belief that “languages could

differ from each other without limit”)? Literature which cites (8) answers the question variously, often with seemingly premature confidence. The context of Joos (1957:96) is an explanation of how Americans came to separate themselves from European structuralists by embracing the label “descriptive linguistics”. On the European side, Joos mentions the Linguistic Circle of Prague and Nikolai Trubetzkoy (1890–1938), who, in the view of American descriptivists, was too quick to try to explain language with reference to purported linguistic universals. Across the Atlantic, there was “the American (Boas) tradition” and Edward Sapir (1884–1939). In adjacent paragraphs, Joos has reason to refer to Bernard Bloch (1907–1965), Leonard Bloomfield (1887–1949), and Charles F. Hockett (1916–2000). It is salient that, even in this company, and even as he characterizes the notion of limitless variability broadly as “American”, Joos specifically attributes it to Franz Boas (1859–1942). That attribution is reiterated on p. 228, where Joos refers back to the idea (re-phrasing it as “languages can differ without limit as to either extent or variation”), again labeling it as the “Boas tradition”. One could interpret Joos to imply by this expression that Boas initiated the idea, then later scholars carried it forward and elaborated on it. But if that is what Joos meant, it is curious that in a book dedicated to tracing the development of American descriptivism, he misses many opportunities to indicate how the idea evolved among the array of linguists who followed Boas. In fact, Joos neither explicitly identifies a commitment to the limitless variability of language with post-Boasian descriptive linguistics in general, nor does his text rule out such a reading. (Nowhere, however, does Joos represent the idea of limitless variability as specifically his own belief.)

The tradition of citation of Joos (1957:96), outside of the work of historians of linguistics, little recognizes these complexities. Typically, they are ignored. It is revealing to examine the syntax used in quotations of the passage. Rarely is the full complex noun phrase serving as the object of the verb *contradict* in the last sentence in (8) cited in its entirety. Often only the embedded finite complement clause appears, cut off from its head noun (“the American (Boas) tradition”); frequently, what is quoted is further truncated to consist only of the bare verb phrase (“differ from each other without limit and in unpredictable ways”). Thus Joos’ attribution of the

idea to Boas is readily suppressed, leaving it vulnerable to being predicated of other parties. The other party most commonly made responsible—directly or indirectly—for the notion of limitless variability is Joos himself. For example:

(9) In the year that saw the publication of Chomsky's *Syntactic Structures* (1957), Martin Joos could write that languages could "differ from each other without limit and in unpredictable ways." No one believes that any more: a major achievement of the Chomskyan paradigm. (Smith 1999:105)

(10) [Following quotation of Genesis 11:1–9, the destruction of the Tower of Babel] In the year of our Lord 1957, the linguist Martin Joos reviewed the preceding three decades of research in linguistics and concluded that God had actually gone much farther in confounding the language of Noah's descendants. Whereas the God of Genesis was said to be content with mere mutual unintelligibility, Joos declared that "languages could differ from each other without limit and in unpredictable ways." That same year, the Chomskyan revolution began with the publication of *Syntactic Structures* . . . . (Pinker 1994:231–232)

(11) [In response to the interviewer's query, "What is your position on the question of *language universals*?" ] Languages do not 'differ from each other without limit and in unpredictable ways', to quote the famous phrase of Martin Joos. (McCawley 1974:268)

Note that the wording in (11) acknowledges that McCawley's conception of the passage from Joos has reduced its complex, multi-clausal, syntax to a simple "phrase".

Another popular interpretation of (8) indiscriminately predicates Joos' famous words of descriptivism at large. This seems not indefensible, but it does extrapolate beyond what the text on p. 96 makes Joos responsible for. In a sketch of "mainstream American linguistics" circa 1961, Ferguson (1978:10) incorporates the quote (beginning with "languages could differ . . .") as conveying "the flavor of the times". Sampson (1997:7) achieves the same reading, quite efficiently, by simply eliding Joos' reference to Boas: "Martin Joos in 1957 epitomized the received attitude to linguistic study in his own country as 'the American . . . tradition that languages could differ from each other without limit and in unpredictable ways'. [ . . . ] Noam Chomsky completely changed this agenda." Chomsky (1986:20–21) transmits to his readers

Joos' attribution of the notion of unlimited cross-linguistic variability to Boas, but then goes on to assert that that notion reflects "a fairly broad consensus of the time".<sup>xxi</sup>

In addition, there are scholars—noticeably, historians of linguistics—who conscientiously incorporate Joos' reference to "the American (Boas) tradition", while signaling their consciousness of the difficulty of interpreting that phrase. Some, like Newmeyer (1980:5), nevertheless construe the passage as representing an outlook general to descriptivists, seemingly in concert with Ferguson, Sampson, and Chomsky. Teeter (1964:200) and following Teeter, Diller (1971:19; 1978:20) and Anderson (1985:202–204, 280–281), offer more nuanced readings of the passage which exempt Boas himself from responsibility for it, but variously implicate "post-Boasian" linguists. Hymes and Fought (1975:939–941, 959–961) dispute Teeter's interpretation; Newmeyer (1980:5) rejects Hymes and Fought's reading. Indeed, the exact nature of the relationship which Joos posits between the notion of unlimited variability and Franz Boas or the descriptivists who followed Boas (or both), is not easy to extract from the famous passage. But that complexity itself has to be addressed—or at least acknowledged—by those who would quote Joos, rather than evaded by strategic truncation of the passage. This is a first issue which undermines the validity of many attested citations of Joos' words.

A second issue concerns whether Joos' claim is, in fact, tenable. Prescinding from the difficulty of determining exactly of whom Joos was predicating his famous statement, is it accurate to claim that for (all, or some undefined subset of) descriptivists, "languages could differ from each other without limit and in unpredictable ways"? Joos' text is now routinely cited to depict early twentieth-century American linguists as having put aside concern for larger generalities in favor of exacting descriptive studies of little-known languages, distributional patterns, and inductive field methods. Generative linguistics distances itself from these activities; as illustrated in Smith's (1999) citation of Joos, this is a passage which generativists love to hate. Partee (1971:8) goes so far as to frame Joos' statement as the ultimate example of a position which "doesn't seem like anything one could rationally *want* to champion". But, did descriptivists actually champion that position? Certainly there is no evidence that descriptivists

paraded Joos' famous words as an epitome of their approach, in the manner that generative linguistics is wont to. Even granted that the first publication of *Readings in Linguistics* occurred around what may have been the zenith of the linguistics Joos was depicting, there are texts like Gleason (1961) and Hockett (1968) which were published after Joos (1957), which refer to it, and which give detailed insiders' views of descriptivism, without ever bringing forward the famous passage. On the contrary, Hockett (1968:17) warns that readers should "take [Joos (1957)] as only a very sketchy outline" of descriptivism. Gleason specifically mentions that Joos' "editorial comments must be used with caution" (1961:485). A review of *Readings in Linguistics* by Charles Voegelin found nothing to commend; moreover, the first sentence of the review bluntly introduces that opinion as a consensus. The review begins, "The general dissatisfaction expressed over the selection of papers in this book . . . ." (Voegelin 1958:86). Thus the reception given to Joos (1957) by his contemporaries starkly contrasts with generativists' unblinking acceptance of it as a summary of descriptivism.

It is, of course, fully possible that (all, or some) descriptivists could support the position which Joos depicts without citing his words. The intellectual atmosphere of the day was indisputably supportive of data-driven, inductive, linguistics which attended closely to the description of languages and which, on principle, expected divergence. Therefore, one certainly can locate in the array of descriptivist literature passages which downplay the search for common ground across different languages. But this is not to say that all interest in the shared properties of languages was extinguished. Much has already been written about why what Robins (1990:16) called "craving for universals" was not, in fact, absent from linguistic work in the era Joos was writing about. Works such as that of Hymes and Fought (1975) and Anderson (1985:198–204, 280–286) challenge the representation of descriptivism which Joos' famous statement has been taken to legitimate. To first read the passage narrowly as applying to Boas, there is evidence that Boas did not abandon pursuit of language universals. Franz Boas emphasized that Native American languages could not be adequately described in the terms of the classical linguistic tradition. But he did not do away with the expectation that all languages

had some essential affinities. For example, in the introduction to his *Handbook of American Indian languages*, Boas (1966 [1911]:67) warned scholars against taking the familiar categories of European languages for granted, while at the same time he asserted the existence of linguistic commonalities. He wrote that, “the occurrence of the most fundamental grammatical concepts in all languages must be considered as proof of the unity of fundamental psychological processes”. In the same text, Boas specified that the number of sounds available for human languages is unlimited (p.11), but that “in all the languages of the world, the number of processes which are utilized to express the relations of terms is limited” (p.23). Boas’ aim seems to have been that of disrupting the expectation that one can apply the features of Indo-European languages exhaustively to all languages, rather than asserting that variability has no restrictions.

To read Joos’ words more broadly, the anti-universalism of American descriptivists who followed Boas may also be exaggerated insofar as the famous passage is taken to summarize their positions. As Teeter (1964:199) remarked, many linguists working in the first half of the 1900s in the United States were engaged in “stressing . . . the importance of facts over general theory”. But as Hymes and Fought (1975:959–961) emphasize, descriptivists seemed less to have believed in the infinite and unfathomable mutability of human language than in the necessity of postponing discussion about the limits of mutability until more data about those limits had been amassed and analyzed. In 1933, Leonard Bloomfield speculated in a famous passage from *Language* that language universals may exist, but that it was untimely to pursue them.

(12) The only useful generalizations about language are inductive generalizations. Features which we think ought to be universal may be absent from the very next language that becomes accessible. Some features, such as, for instance, the distinction of verb-like and noun-like words as separate parts of speech, are common to many languages, but lacking in others. The fact that some features are, at any rate, widespread, is worthy of notice and calls for explanation; when we have adequate data about many languages, we shall have to return to the problem of general grammar and to explain these similarities and divergences, but this study, when it comes, will not be speculative but inductive. (Bloomfield 1933:20)

To Hockett (1968:79), this text by Bloomfield's amounted to a proposal that a "moratorium [be called] on overprecise generalizations until adequate data had become available". Writing on a different topic while revealing the same spirit, Bloomfield (1934:36) defined what would constitute a legitimate scientific explanation for linguistic phenomena. That explanation would eventually comprise "a larger synthesis, a General Grammar, which would register similarities between languages".<sup>xxii</sup> About this statement, Matthews (1993:47) commented that "despite the occasional loose remark by later scholars, that remained a responsible view" of American descriptivists about language universals.

In another approach to assessing whether the conventional interpretation of Joos' words is tenable, it is instructive to examine Hockett (1968). In this wide-ranging critique of Chomsky's linguistics by a prominent descriptivist, Hockett (1968:38–43) articulates 19 points which for him constitute a summary of generative theory as it stood in 1965. Among the 19 points is "C13", in which Hockett represents generative grammar's commitment to the existence of universal grammar.

(13) C13. An explicit formulation of the innate grammar-producing system [ . . . ] would constitute a *general grammar* (or *general linguistic theory*). If we had such, then the characterization of any specific language would require only that we plug in appropriate values for certain of the variables (or arbitrary constants) in the general grammar. (Hockett 1968:41)

In a subsequent chapter, Hockett critically analyzes each of the 19 points, some at considerable length, contrasting his own orientation to that of generative grammar. But he devotes only one off-hand sentence to refuting C13, in a rather mitigated manner. Hockett first rejects the legitimacy of how Chomsky frames the search for descriptively adequate grammars of particular languages. He then adds that it is also futile to seek "a 'general grammar' or 'grammar-producing system' as *Chomsky defines it* ([here Hockett refers to C13]), though it is both possible and desirable to seek cross-linguistic generalizations—*inductively*, as Bloomfield said years ago . . . " (p.76; emphasis in the original). This brief, mild, expression of dissent is all that Hockett has to say against Chomskyan universal grammar. It is hardly what one would expect if

descriptivists had unanimously believed that “languages could differ from each other without limit and in unpredictable ways”.

Thus there is a significant disproportion between the restraint of linguists like Hockett (1968) or Bloomfield (1933) on the issue of linguistic universals, and generativists’ portrayal of descriptivism as avidly and uniformly anti-universalist. Borsley (1991) illustrates the role of the quotation from Joos has played in sustaining that portrayal. In the Preface to his 230-page textbook introducing Chomsky’s Government and Binding theory alongside Generalized and Head-driven Phrase Structure Grammars, Borsley indicates that in his view “it is important to give some sense that syntactic theory has a history, and that it did not appear fully formed the day before yesterday” (p.xi). Notwithstanding that orientation, the only direct access Borsley’s book affords to readers about the content of pre-Chomskyan linguistics is to cite Joos (1957). Borsley writes that modern syntactic theory aims to develop a general account of what human languages have in common, a goal which “entails a rejection of the view expressed by one linguist in the 50s that ‘languages can [*sic*] vary without limit’” (p.1). Thus Borsley treats the purported anti-universalism of descriptivism as its single critical characteristic; even the commitment he expresses to a historically-informed syntactic theory cannot resist the power of the conventional reading of Joos (1957:96), or its convenience as a rationale for dismissing inquiry into the recent past.

But if, contrary to their present-day public image, American descriptivists were not categorically opposed to cross-linguistic generalization, then a third question arises: What *is* the force of Joos’ famous declaration? Returning to Matthews’ characterization of the text from Bloomfield (1934), Joos’ words may well be an example of what Matthews meant by a “loose remark”. It is important to understand the context of Joos (1957). The book is an anthology reprinting 43 papers which Joos took to represent the development of American linguistics, mostly from the mid 1930s up to 1956. Joos’ claim about cross-linguistic variability appears not as the climax of a summary of descriptivist theory, but in one of many fragments of informal editorial *obiter dicta* which Joos supplied, filling out the bottom of the last page of each of the



anthology's constituent papers. In these comments, which Joos refers to as “pedagogical notes” in his Preface to the fourth edition (1966:v), the tone is personal, avuncular, and at times, playful. (14) provides additional excerpts which communicate something of Joos' voice.

- (14) a. [Bloomfield] often indulged in deliberately shocking formulations . . . that at first seem too naive to be scholarly . . . ; [Bloomfield] once said to me . . . (1957:31)
- b. [Regarding Bloomfield's claims about phonemic change] Change what? What is it that changes in them? How d'ye mean, they 'change'? the reader is apt to ask. (1957:84)
- c. I recall being disconcerted, on first reading the Hockett article . . . (1957:96)
- d. This, incidentally, is what Chao prefers to say—or did whenever I talked with him about it—though, with characteristic urbanity, he likes to help out his interlocutor . . . (1957:123)

Joos positions himself rhetorically at the reader's elbow, guiding him or her through the unfolding of American descriptivism as represented in the papers which comprise the anthology. His purpose seems to be to speak directly to the reader in, as it were, intermissions between the successive acts of a long and rather demanding drama. The statement about “without limit and in unpredictable ways” was, therefore, produced in a context in which looseness, dramatic embellishment, and even hyperbole would be at home. Thus it would seem incongruous to treat it as a carefully-groomed culmination of the mindset of a whole branch of scholarship.

Regrettably, Joos' words are now passed along as a representation of pre-generative linguistics with little consciousness of either the beliefs of the scholarly community which produced them, or the text out of which they were extracted. Thus many students narrowly trained in generative linguistics accept the remark that “languages could differ from each other without limit and in unpredictable ways” as a central article of faith among early twentieth-century linguists. What was probably more a deferment of research into universals has been reinterpreted as a principled, across-the-board, rejection. As evidence of that rejection, generativists bring forward a statement which is obscure in its attribution of anti-universalism to a particular person or group, was viewed skeptically by some within the group, and moreover displays a kind of cultivated laxity which should disqualify it from being held up as a *précis* of

descriptivism. The frequency with which Joos' words are nevertheless cited as typifying American linguistics from the first half of the twentieth century suggests that they are, in part, liable for the misrepresentation of that group. Returning to the textbook excerpt in (7), Fromkin does not explicitly quote Joos, yet I would speculate that his famous words were haunting her imagination as she wrote that "many linguists in the pre-Chomsky period . . . held that languages could differ in innumerable ways".<sup>xxiii</sup> The depiction of American descriptivism in these terms, inadequate as it may be, seems to have entered into generative linguistics' collective unconscious such that it is transmitted to an oncoming generation of linguists as part of the unquestioned lore of the discipline.

#### 4. *Conclusion*

It might be argued that the conventional interpretations of these passages from Bacon and Joos may not be fully felicitous or historically unassailable but that, even so, such interpretations do not constitute a significant distortion since their overall importance in generative literature is slight. When, for example, Pinker invokes Joos in *The Language Instinct* he is not really any more interested in depicting American descriptivism than Chomsky is interested in depicting medieval speculative grammar when he invokes Bacon in *Knowledge of Language*. In both cases, the quoted passage plays a relatively small role in advancing the agenda of the superordinate text. That agenda is to elaborate on the nature of generative theory. References to the past (accurate or not) serve largely as instruments in the self-representation of the present.

Still, one might ask whether this is the ideal, or even an appropriate, role for the history of a discipline to play in expositions of that discipline's modern state. To ask that question is to raise huge, unwieldy, issues about the value and purpose of historical study. It is my sense that these issues need to be more openly debated in the context of modern linguistics. One position in that debate is implicit, although perceptible, in Strozer's ahistoricism or in claims like that of Smith (2000:xi), who wrote that "The theory of Principles and Parameters which has been developed over the last two decades is probably the first really novel approach to language of the last two

and a half thousand years”. Statements like these sharply separate generative linguistics from its purportedly incommensurate past. They imply that not much is to be learned from the past of the discipline. But they are rarely built on close study of what those approaches to language of the last two and a half thousand years have actually been. In the absence of that kind of study, it is easy for misunderstandings and inaccurate representations to grow up. We have seen that interpretations of the work of Roger Bacon and Martin Joos, as they are conventionally framed in generative literature, are probably inaccurate. What is worse is that they prematurely shut off inquiry into the history of linguistics by vastly under-representing the actual complexity of the relationship between language science as it was then, to language science as it is now. Their net result is to strengthen modern conviction that the past has not much value.

Another position in an (imaginary) debate about the role of the history of linguistics might seize upon a task like that of reassessing the reputations of Roger Bacon and Martin Joos as an opportunity. For the reasons discussed here, Roger Bacon is probably not the best candidate for the role of first universal grammarian *avant la lettre*. Perhaps some other speculative grammarian could be singled out for that honor, but to do so would require one to address such potentially worthwhile questions as whether the existence of an articulated notion of universal grammar is sufficient grounds for comparing generative versus speculative grammars despite their massive differences. Likewise, it is probably incongruous to treat Martin Joos’ often-cited declaration as authoritative in the face of evidence that American descriptivists did admit the value, if at a distance, of inquiry into cross-linguistic commonalities. The contributions of early twentieth-century American linguistics relative to European structuralism which came before, and relative to generative theory which came after, is far too complex to be epitomized by a casual remark. To do justice to that issue would require addressing many questions about how theory-construction has been carried out, and about what, in different intellectual cultures, has counted as a theory of language. Work like that demands (to paraphrase the words of Lerner (1997:201)) imagination, empathy, curiosity, and open-mindedness. It assumes quite a different role for the history of linguistics in the conduct of the modern discipline, compared to the role

implicitly assigned in the prevailing readings of these passages from Roger Bacon and from Martin Joos.

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# Notes

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<sup>i</sup> Additional commentary on *Cartesian Linguistics* includes Lakoff (1969), Salmon (1969), Salus (1969), Aarsleff (1971), Bracken (1972), Andrews (1979), and Koerner (1989).

<sup>ii</sup> For background on Bacon and his work, see Nolan and Hirsch (1902), Bridges (1914), Little (1914), and Easton (1952).

<sup>iii</sup> Bursill-Hall (1971) and especially Covington (1984) provide readable introductions to speculative grammar.

<sup>iv</sup> From Boethius of Dacia's *Modi Significandi sive Quaestiones super Priscianum Maiorem*, Q.2.26–31, cited in Henry (1980:86).

<sup>v</sup> This translation is from Kelly (1969:354). Hovdhaugen leaves Bacon's *secundum substantiam* untranslated. Some have rendered it "in [its (= grammar's)] substance" (Robins 1967:76–77 *et seqq.* eds.; Padley 1976:154), others as "substantially" (Lyons 1968:15; Dinneen 1995:168). An anonymous reviewer noted that "the idiomatic English 'substantially' means less than the Aristotelian '*substantiam*'". Likewise, the idiomatic English "accidentally", used by Lyons (1968:16) and Dinneen (1995:168), *inter alios*, seemingly in the sense of "unintentionally" may be misleading as a translation of "*accidentaliter*". The passage needs a translation which reflects "the fact that it proceeded from the philosopher Bacon, who uses the terms '*substantia*' and '*accidens*' in the precise philosophical sense" (Nolan & Hirsch 1902:xxv–xxvi). It remains to be seen how Hovdhaugen' (1990) interpretation of the passage (addressed below) would accommodate that fact.

<sup>vi</sup> The paths of transmission recorded in Table 1 are approximate, granted that these data have been gleaned from texts whose authors adopt diverse citation practices. An author may indicate several sources so that no single thread uniquely binds his or her work to previous scholarship. Or, like Bursill-Hall (1972:19), an author may present the passage without specifying any particular source. (But unlike the entries under (C) in Table 1, Bursill-Hall (1972) refers in nearby text to numerous works in which he might have located the critical passage: Robins (1951) and Grabmann (1926) are most prominent, but he also mentions Wallerand (1913), Gilson (1955), the volume in which Jakobson (1963) appears, Dinneen (1967), Mounin (1967), Robins (1967), Lyons (1968), and others.) Table 1 also suppresses the diversity of ways in which authors have incorporated Bacon into their own writing. Grabmann (1926:118), for example, paraphrases only the first part of the passage: "*Es liegt diesen Untersuchungen die Überzeugung zugrunde, daß es eine einzige, allen Sprachen gemeinsame Grammatik, also eine reine apriorische Grammatik gibt*". The attribution of this idea to Bacon, at the beginning of Grabmann's following paragraph, is indirect.

<sup>vii</sup> The burst of citations of Bacon in the 1960s are all distant descendants of Charles (1861); Nolan and Hirsch (1902) seems to have been out of circulation among linguists until the mid 1970s. (But not among historians: cf. Sandys (1903, 1906, 1921; n.d.), Hirsch (1914), Gilson

(1955), in Table 1.) Bursill-Hall (1972) makes no reference to Nolan and Hirsch, remarking on p. 18 that “to date there has been no assessment by a modern linguist of Bacon’s grammatical work”. But three years later, Nolan and Hirsch’s edition apparently orbited back into linguists’ view, for example in Bursill-Hall (1975:201).

<sup>viii</sup> An Internet search for references to “Roger Bacon” and “*grammatica*” or “grammar” turned up additional citations of the “one and the same” passage within discussions of generative linguistics (e.g. embedded in texts like book reviews, papers, lecture notes).

<sup>ix</sup> These quotations from Bacon’s writings are from Hirsch (1914), in order: p.105; p.119; p.112.

<sup>x</sup> Therefore it is doubtful that Bacon can be legitimately held up as a precursor to generative grammar. It is another question whether speculative grammar, as distinct from Bacon’s linguistic theorizing, may be assigned that role. Relevant discussion can be found in works such as Godfrey (1965), Kelly (1971), Pinborg and Lewry (1975), Trentman (1976), and Brevi-Claramonte (1977).

<sup>xi</sup> Bursill-Hall returns on p. 135 to differences between Bacon and the *modistae*, on the subject of their differential evaluation of Latin.

<sup>xii</sup> Victoria A. Fromkin is listed as editor of Fromkin (2000), alongside 11 of her colleagues who collaborated variously in the production of the book. There is no indication of the authorship of individual chapters. Professor Fromkin died in January 2000, but according to one of her collaborators (Nina Hyams, p.c., January 2002), Fromkin herself wrote the Introduction in which (6) appears. Therefore, its inclusion in the text, and the context in which the passage is set, can be represented faithfully as her own work.

<sup>xiii</sup> Another possibility is that Fromkin and Rodman may have been influenced by a passage in Robins (1952:290). Robins conjoins a paraphrase of the “one and the same” text to what resembles a partial paraphrase of (6): “Roger Bacon went so far as to say that in essence all grammar was one and the same, but that contingent variation in the forms of speech rendered one tongue unintelligible to another”. Robins adds a footnote at the end of this sentence which consists of the Latin text behind (6), citing Wallerand as his source. A reader could plausibly interpret Robins’ juxtaposition of material explicitly attributed to Bacon (“in essence all grammar [is] one and the same”) with the footnoted (6) to indicate that Bacon is the author of both texts. (Dinneen (1967:147) may also make the same mistake as Fromkin and Rodman, although he quotes only a portion of (6).) Whatever the basis for Fromkin and Rodman’s error, an edition of Godfrey of Fontaine’s abridgment of Boethius of Dacia’s *Modi Significandi sive Quaestiones super Priscianum Maiorem* (the latter written around 1270–2) contains a passage identical to that in Wallerand’s footnote 8 (Q. 2, trans. McDermott 1980:29). Hence, this may be the source of (6). McDermott’s Introduction (pp.1–20) sheds no light on a possible relationship between Godfrey of Fontaine’s abridgment and the manuscript Wallerand cites as anonymous. However, Bursill-Hall (1981:203) identifies the Bibliothèque Nationale de Paris Cod. Lat. 16297 f. 131r–140r as Godfrey of Fontaine’s abridgment of Boethius of Dacia’s work.

<sup>xiv</sup> Unlike the words of Roger Bacon, materials posted on the Internet come and go. In February 2001, a citation of (6) attributed to Roger Bacon (referencing Fromkin and Rodman (1998)) appeared in a student paper. By August 2002 that document had disappeared, but (6) was located embedded in a personal web page, again with Bacon identified as the author of the quotation.

<sup>xv</sup> At risk of seeming to adopt a posture of overbearing self-righteousness, one might point out that Fromkin and Rodman hold no monopoly on scholarly inaccuracy. Charles’ (1861) citation

of the “one and the same” text appears on his pp. 263 and 359, not on p. 278 as universally reported by Wallerand (1913:43), Robins (1951:77), Kretzmann (1967:374), Chomsky (1966:105), Bursill-Hall (1971:12, 38), and Kutchera (1971:345; 1975:217). (Only Hirsch (1899:66) escapes, correctly citing p. 263.) The chief value in attending to a small error like this is that it reveals the power wielded by successively earlier links in a chain of texts wherein one cites the other. I would speculate that Wallerand made the initial mis-citation of Charles’ p. 278, then Robins (1951) was influential in disseminating the error. Like a defective gene copied and transmitted from generation to generation, the mis-citation serves to identify the descendants of a family tree of scholarship, each of whose members is intimately connected to the others.

<sup>xvi</sup> Others include the tower of Babel story from Genesis 11; the passage from Augustine’s fourth-century *Confessions* about child language acquisition; an excerpt from a text by César Chesneau Du Marsais (1676–1756) distinguishing universal from particular grammars; William Jones’ speculation about the relationship of Sanskrit to western European languages from his famous 1786 address; and Edward Sapir’s definition of the phoneme. It is worth noting that, compared to other introductory texts in the field, Fromkin and Rodman’s books contain more than average historical content, superficially integrated though it may be.

<sup>xvii</sup> An anonymous reviewer suggests that the entrenchment of references to Roger Bacon is comparable to that which Martin (1986) has analyzed in the many references to “Eskimos” purportedly large vocabulary for snow which have appeared in scholarly and popular literature. Martin lists as characteristic of such references the fact that they are “appl[ied] . . . to diverse (and contradictory) theoretical purposes” (p.420). Fromkin and Rodman do apply the text they attribute to Bacon to diverse purposes. But granted that (6) paradoxically asserts both the unity and the diversity of human language, insofar as Fromkin and Rodman’s applications of it could be characterized as contradictory, that fact seems more inherent to the passage itself than imposed by the contexts of its citation.

<sup>xviii</sup> Historians of linguistics are sharply divided about the validity of this self-representation. See Newmeyer (1986[1980], 1996), Koerner (1989), Harris (1993), and Matthews (1993) for discussion.

<sup>xix</sup> What Gass and Ard (1980:443) quote is not the famous passage from Joos (1957:96), but the echo of it from p. 228 (see below).

<sup>xx</sup> I have come across two texts which cite both the Bacon and the Joos passages (in that order): Ferguson (1978) and Chomsky (1986). Joos’ words appears in material posted on the Internet in the same kinds of contexts as the Bacon quotation, although Joos appears more frequently than Bacon in discussions on *The Linguist List*.

<sup>xxi</sup> Botha (1992:84) cites Chomsky’s (1986) quotation of Joos, but removes Boas from the picture. Thus Botha (inaccurately) implies that Chomsky presents the Boasian claim as having been asserted by Joos himself.

<sup>xxii</sup> The sentence continues, “lack of data forbids this, even as it frustrated the attempts of eighteen-century scholars”. Again, Bloomfield seems to be postponing research into universals of language more than denying their existence. See also Bloomfield (1933:297). Nida (1950:20–21) provides an example of a linguist of a different stripe also struggling with the matter of whether language universals exist, and what that might mean.

<sup>xxiii</sup> Fromkin’s assertion might, on the other hand, be an oblique reference to a line from Edward Sapir’s *Language* (1949 [1921]:4): “Speech is a human activity that varies without assignable limit”. But this seems rather less plausible as Fromkin’s inspiration because (1) Sapir’s

statement declares that there is unlimited variation of speech, not language (but cf. Chomsky (1986:21), where Sapir is quoted as writing that “language is a human activity that varies without assignable limit”); (2) the context is Sapir’s argument that “speech is a non-instinctive, acquired, ‘cultural’ function”, (1949 [1921]:4) not inborn. Sapir was trying to debunk innateness, not the existence of language universals or of universal grammar, whereas Fromkin’s focus is on the latter; and (3) Sapir’s text has been cited far less frequently than Joos’.



TABLE 1

- A. Charles 1861:263, 359  
     Hirsch 1899:66  
     Wallerand 1913:43  
         Grabmann 1926:118  
             Gilson 1947:405 [+Wallerand]  
                 Kukenheim 1966:19 [+Wallerand]  
                     Mounin 1967:114; 1996:118 [+Gilson 1947, Robins 1951]  
                     Kelly 1969:354  
             Robins 1951:77 [+Charles]  
                 Lyons 1991:123 [+Jakobson]  
             Robins 1967, 1979:76–77; 1990:86; 1997:90 [+Wallerand, all 4 eds.]  
                 Bursill-Hall 1972:19 [+Robins 1951, Grabmann, *inter alios*]  
                     Elia 1981:173 [+Kukenheim, Gilson 1947]  
             Kretzmann 1967:374 [+Charles, Wallerand]  
                 Chomsky 1966:105 [+Charles; Kretzmann cited as “forthcoming”]  
             Dinneen 1967:147, 160, 380 [+Wallerand]  
                 Lyons 1968:15–16, 333 [+Robins 1951, Grabmann]  
                 Jacobsen 1978:51  
             Dinneen 1995:168  
         Jakobson 1963:209  
         Bursill-Hall 1971:12, 38 [+Robins 1951, Charles]  
         Kutschera 1971:245; 1975b:217  
         Robins 1988:472
- B. Nolan & Hirsch 1902:27  
     Sandys 1903:573, 1906, 1921:595 [all in Vol.1]; n.d.:7  
     Hirsch 1914:122  
     Gilson 1955:313, 781 [+Wallerand, Grabmann]  
         Thomas 1997:345, 347  
     Bursill-Hall 1975:201  
     Bursill-Hall 1976:170  
     Bursill-Hall 1995:131  
         Campbell 2001:84  
     Padley 1976:154, 216  
     Salus 1976:87  
     Reichl 1976:105 [+Robins 1969, Lyons 1968, Kutschera 1971, Grabmann]  
     Kelly 1977:xviii [(?) cites Bacon’s *Greek Grammar*, not Nolan & Hirsch]  
     Pinborg 1982:266  
     Maierù 1983:743  
         Eco 1995:44  
     Covington 1984:20
- C. No source identified. Text typically framed as “in Roger Bacon’s famous words...”  
     Fromkin & Rodman 1974:227, 1978:334; 1983:342; 1988:388; 1993:421; 1998:346  
     Fromkin 2000:12  
         N.B. These two works do not quote the “one and the same” passage, but  
         rather a similar text (mis?)attributed to Bacon

Ferguson 1978:9  
Cooreman & Goyvaerts 1980:615  
Chomsky 1986:1  
Steiner 1975:94, 1992, 1998:98

Table 1. Citations of Roger Bacon's assertion that "*grammatica* is one and the same...", showing apparent paths of transmission. In (A) and (B), each indented entry specifies the entry immediately pre-posed to the left as the writer's source for Bacon's text. Where more than one source is specified, the additional sources are given in brackets.