ON A CERTAIN TENSION IN LINGUISTICS: NOAM CHOMSKY AND ROY HARRIS

by

KENNETH EVAN WILLIAMS
B.A., University of Victoria, 1988

A Thesis Submitted in Partial Fullfillment of the
Requirements for the Degree of

MASTER OF ARTS

in the Department of Linguistics.

ACCEPTED
[redacted]
DEAN
TE 21 Dec '93

We accept this thesis as conforming
to the required standard

[redacted]

Dr. Thomas E. Hukari (Dept. of Linguistics), Supervisor

[redacted]

Dr. Barbara P. Harris (Dept. of Linguistics), Departmental Member

[redacted]

Dr. Charles G. Morgan (Dept. of Philosophy), Outside Member

[redacted]

Dr. James O. Young (Dept. of Philosophy), External Examiner

Abstract

This thesis is about a certain kind of tension existing between two quite divergent concepts of language: that of the American linguist, Noam Chomsky, and that of the British linguist, Roy Harris. According to one conception, language is considered to be a cognitive capacity—the 'language faculty'. The methodological approach of this view is to abstract some notion of language away from language use by way of the competence/performance distinction and other idealisations. Language is then conceived to be a formal mechanism, consisting of a system of rules and principles, instantiated in the brain. The general form of this mechanism (universal grammar) is said to be biologically innate and when exposed to some linguistic environment, virtually *causes* intact human beings to acquire one or more languages. The other conception also considers language to be a cognitive capacity which, no doubt, depends upon the brain, among other factors. However, according to this particular conception, certain obvious everyday aspects of language—e.g. that it is very much a diverse form of social interaction, that it is a complex normative practice, etc.—are thought to be paramount. This view holds that it is a mistake for *any* study of language to artificially contrive a distinction between some abstract notion of language, on the one hand, and language use, on the other, and then estrange the one from the other, treating the abstraction as fundamental. The former vision is that of Noam Chomsky and the latter vision is that of the Oxford linguist Roy Harris; and they are seen by their respective advocates as being mutually incompatible (in principle) in their aims for linguistic analysis. But what is most interesting about these two ostensibly incompatible conceptions of language and linguistics is that some of what they *both* stand for seems to make sense—this, of course, intensifies the tension.

I am to some extent inventing this 'tension', as I call it, between Chomsky and Harris, since there is currently no dialectic debate in the discipline in which they are involved in scholarly exchange. And yet they have both widely published

their respective views on language and its investigation, which are largely in radical disagreement. But in spite of this lack of dialectical connexion between Chomsky and Harris, there are definitely substantive issues here involving contrasting sets of ideas worthy of examination. Notwithstanding this divergence, however, aspects of both of their views seem reasonable and considered together, in contrast, may provide some greater understanding of linguistic communication. This thesis is aimed at examining this contrast.

Examiners:

[redacted]

Dr. Thomas E. Hukari (Dept. of Linguistics), Supervisor

[redacted]

Dr. Barbara P. Harris (Dept. of Linguistics), Departmental Member

[redacted]

Dr. Charles G. Morgan (Dept. of Philosophy), Outside Member

[redacted]

Dr. James O. Young (Dept. of Philosophy), External Examiner

[redacted]

Contents

Acknowledgements

While studying linguistics, philosophy, and sundry other things over the past few years here at the University of Victoria, I have learned much about many aspects of the world and my own personal relations to it. I have, of course, learned much from the content of my studies; but, by far, the most significant source of my learning has come of my personal contact with the various individuals who have been my teachers, colleagues, and friends. Some of these individuals, I wish to acknowledge here.

First (and definitely foremost), I must acknowledge my supervisor, Dr. Tom Hukari. He has gone 'beyond the call' in so many ways for me. He has been ever-willing to let me explore and to explore with me many areas of linguistic investigation (such as topics in philosophical logic and the philosophy of language) that lie outside his primary research interest of syntax in the phrase structure grammar setting. He has also been wonderfully patient with the waxings and wanings of my academic motivation. In addition, I have learned many valuable lessons about life from him as a consequence of being his teaching assistant. Besides our academic relationship, I have spent many enjoyable hours with Tom over coffee discussing life, music, and many other topics of mutual interest. I offer profound thanks for the scholarship and friendship that Tom has shown me over the years.

I have grown in many positive ways as a result of knowing Charles Morgan. I have profited enormously from conversations with Charles on topics as diverse as logic, probability, epistemology, science and the philosophy of science,

evolution, music and musical instrument making, tools and tool making, and farming and agriculture. Much of my intellectual orientation has resulted from those conversations. As with Tom, I offer Charles deep gratitude.

I wish also to acknowledge Dr. Barbara Harris and Dr. James Young. Barbara has been helpful to me in many ways, being generally very accessible and always ready to answer my myriad questions about the social side of language. Her concern for the welfare of linguistics graduate students, too, has been very supportive. Jim, as well, has been a stimulating teacher and friend, willing to go outside of his main interests (epistemology, philosophy of language, and aesthetics) to look at work in linguistics. I have also spent many happy hours with Jim discussing music and musical instruments, philosophy, and life generally. To both of them, I offer my sincere gratitude.

There are several (current and ex-) faculty members of the linguistics department whose help and benevolence I wish to acknowledge. Among these people are: Dawn E. Bates, Joe Kess, Geoff O'Grady, James Arthurs, Leslie Saxon, Tom Hess, and Henry Warkentyne.

I must also mention the names of many of my fellow graduate students in linguistics (past and present) whose general levity, affability, and interest in what they are doing have helped to make the University of Victoria linguistics department the very friendly and interesting environment that it is: Paul Agbedor, Norman Bendle, Tracel Schnorr von Carolsfeld, Chen Shuchen, Andrea Giles, Erica Hoffmann, Paul Hopkins, Hyong Joong Kim, Sandra Kirkham, Lin Hua, Mike McGovern, Tadao Miyamoto, Brenda Orser, Pannakitti Parawahera, Laura Procter, Kimary Shahin, Sage Sinats, Myriam St. Maurice, Suzanne Urbanczyk, Chiharu Uda, Chris Whitney, Karen Woodman, Yang Wei, and Xue Ping. They have, in classes and out, had their good effects.

I would like to extent special thanks to my good friends Alison Marchant and Hyong-Joong Kim, and to my father, Ivor Williams—all of whom have been most supportive and helpful in reading and commenting on my writing.

Finally, I wish to acknowledge my nearest and dearest, Val Myhill, to whom I owe the greatest debt. My gratitude for her love and support is ineffably profound.

To conclude, I have profited and gained greater insight into the matters that I cover in this thesis from many of the aforementioned people, particularly Tom Hukari, Charles Morgan, Jim Young, Barbara Harris, Jimmy Arthurs, Joe Kess, and Leslie Saxon; and the many scholars whose works appear cited in my text and bibliography. I, of course, take sole responsibility for any errors, omissions, and other shortcomings that may have ocurred in this thesis.

* * *

I wish to dedicate this work to my kind and generous parents, Joan and Ivor Williams, whose effects on me are deep and good.

Chapter 1

Introduction: Concepts of Language in Tension

1.1 Introduction

This thesis is about a certain kind of tension existing between two quite divergent concepts of language: that of the American linguist, Noam Chomsky, and that of the British linguist, Roy Harris. I am to some extent inventing this 'tension', as I call it, between Chomsky and Harris, since there is currently no dialectic debate in the discipline in which they are involved in scholarly exchange. And yet they have both widely published their respective views on language and its investigation, which are largely in radical disagreement. But in spite of this lack of dialectical connexion between Chomsky and Harris, there are definitely substantive issues here involving contrasting sets of ideas worthy of examination. Notwithstanding this divergence, however, aspects of both of their views seem reasonable and considered together, in contrast, may provide some greater understanding of linguistic communication.

I will begin by discussing the notion of 'tension' in the context of science; and then bring that notion into the context of linguistics. The purpose of this introduction to tensions is to set the stage for expository discussions of Chomsky's concept of language and Harris', and then a critical discussion of those concepts—hopefully, as I just said, pointing the way to greater understanding of linguistic communication.

1.2 Tensions In Science

In a 1959 paper, the historian and philosopher of science Thomas S. Kuhn observed that a certain kind of tension exists in the practice and teaching of science. The tension that he described contrasts what he called 'convergent' practice with 'divergent' practice. The convergent approach aims at maintaining (though extending, as well) the methods and theories of established science; the aims of the divergent approach are opposite: the willingness to explore new and alternative methods and theories and discard or supplant existing ones. Kuhn's observation was that western science is generally very convergent in its approach and that what he referred to as 'revolutions' in scientific theory, creating new research paradigms, occurred crucially from divergence. Kuhn pointed to 'Copernicanism', 'Darwinism', and 'Einsteinianism' as well-known examples of such 'revolutions' brought about by a divergent approach to inquiry (Kuhn, 1959, p. 226). Kuhn expanded these observations concerning the nature of scientific practice, paradigms, and revolutions in science in his famous and controversial book, *The Structure of Scientific Revolutions* (Kuhn, 1962). Now, whether or not Kuhn or anyone else has been able to make perspicuous the notion of 'revolution' (and related notions, e.g. 'paradigm') is not what I wish to focus on here; the existence of *tensions* in inquiry, however, is.

In addition to the kind that Kuhn pointed out, other sorts of tensions typically abound in the sciences, some of which are part of the normal forward push of science, others of which significantly impede that forward motion.

Two obvious and closely-related kinds of tensions involve the current state of accepted theory versus unsolved questions, and the competition between differing explanatory hypotheses within the same theoretical framework. Both of these will, presumably, be perennial tensions in all open-ended inquiries—

the one, driving them, the other, the vehicle by which (convergent) forward motion is made. Indeed, if these particular tensions were to cease in any science, so would that science. For convenience, I will call these the 'science-driving' and 'convergent progress' tensions, respectively.

A fourth, very interesting, variety of tension, related to the ones just mentioned, is the one involved in maintaining a theoretical stance for systematic explanatory purposes in the face of possible empirical counter-evidence. The philosopher W.V.O. Quine has put the point as follows:

> A good scientific theory is under tension from two opposing forces: the drive for evidence and the drive for system. Theoretical terms should be subject to observable criteria, the more the better, and the more directly the better, other things being equal; and they should lend themselves to systematic laws, the simpler the better, other things being equal. If either of these drives were unchecked by the other, it would issue in something unworthy of the name of scientific theory: in the one case a mere record of observations, in the other a myth without foundation. (Quine, 1981, p. 31.)

I will call this particular variety of tension the 'system/evidence' tension.

A good example of this system/evidence tension is Galileo's defence of the Copernican theory of the diurnal rotation of the earth (discussed in Feyerabend, 1975, pp. 70ff). The counter-evidence that Galileo countenanced was the so-called 'tower argument' (ibid., p. 69), which went as follows (simplified for brevity's sake). If the earth were indeed rotating, a stone dropped off a tower would be displaced from the tower some distance; but observation showed that not to be the case—the stone falls straight downward, parallel to the tower. Thus the earth cannot be in motion. In its day, this was a convincing argument because of how motion was conceived; however, Galileo maintained the Copernican course and argued for a reinterpretation of the counter-evidence with respect to the character of motion.

A fifth kind of tension involves direct inconsistencies in accepted theory; one might call it an 'internal conflict' tension. Here, the best available explanations (within a single theory) of different (though related) phenomena actually clash. For example, in astrophysical cosmology a tension of this kind exists between the theory of gravitation and the currently most well-accepted theory of cosmic origin, the big bang theory. The theory of gravitation predicts that if the entire mass of the universe were concentrated closely in space-time, something like a universal black hole would result—nothing could radiate outward; however, given observations of an expanding cosmos, the best explanation thus far says that all of that mass is radiating out from some single origin, initiated by some catastrophic explosion.[1]

A sixth kind of tension existing in scientific disciplines, which I will call the 'fragmenting' tension, consists of disagreements about the fundamental character of the objects of study and/or the methods for studying those objects. This tension can be present at many different levels, right from the most fundamental assumptions of theory or method (e.g. the pre-theoretical grasp of the object of study) to a fairly high theoretical level. These sorts of disagreement tend to be relatively few, high level, and non-threatening in mature sciences; an example from physics being the dispute about the ontological interpretation of quantum mechanics: this has not stopped work in quantum theory nor has that work been brought into doubt because of these disputes.[2] In not so mature disciplines, however, this kind of tension can seriously fragment the process of inquiry and engender disunity in the discipline in the form of antagonistic factions. (Kuhn would account for this phenomenon by saying that these disciplines are not yet mature enough to have achieved the kind of

[1] My thanks to Charles Morgan for pointing out this example to me in conversation.

[2] My thanks to Bob Levine for, in another context, reminding me of this example.

concensus that is characteristic of 'normal science'.)

I might note that there are complex relationships between all of these tensions. For example, a relationship exists between the kind of tension that Kuhn cites and the 'fragmenting' kind—they are not necessarily independent. The relationship involves the amount of convergent thinking and divergent thinking, on the one hand, and the fragmenting of a discipline into factions, on the other. These factions may be fairly convergent in their approaches and resist divergence from their respective positions; and yet the discipline, as a whole, may be in rather extreme divergence without a 'revolution' in the offing.

The 'system/evidence' type of tension may play a role in the existence of others. For example, with regard to the 'convergent progress' tension, one explanatory hypothesis is retained (perhaps temporarily) in spite of ostensibly damning counter-evidence, while a differing explanatory hypothesis is proposed because of counter-evidence damning other (otherwise reasonable) hypotheses. One can see similar relationships between the 'system/evidence' tension and those of the Kuhnian, the 'internal conflict', and the 'fragmenting' varieties.

One could go on at some length citing other kinds of tensions in science and the relationships that they bear to one another but, for my purposes here, enough has been said to introduce the existence of tensions in scientific inquiry and the kinds of tensions that I wish to discuss in the context of linguistics.

1.3 Tensions In Linguistics

Linguistics is a discipline which has certainly laboured under a variety of tensions like those mentioned above (with the possible exception of the 'internal

conflict' variety). (I am ignoring the issue, here, of whether the predicate 'science' sensibly applies to linguistics; but I am claiming that the kinds of tensions mentioned above, including the Kuhnian variety, that have operated in science have generally operated in linguistics, as well.) Regarding the kind of tension Kuhn cited, for example, many linguists and philosophers consider Noam Chomsky's work in the late 1950's to be an example of linguistics research that radically diverged from the convergent structuralist and behaviourist establishment, causing (to carry on with Kuhn's terminology) a revolution in the discipline—the so-called 'Chomskyan Revolution'—that set up a new research paradigm. Whether this is a tenable reading of Chomsky's effect on the discipline or not is moot. Chomsky's work and that of his followers certainly did cause a great stir and made popular an approach to the study of language that today dominates the discipline; but whether or not Chomsky's work was 'revolutionary' on par with Copernicus' or Einstein's is another matter.[3]

The tension between the present state of accepted theory and unsolved questions is, every linguist surely ought to agree, present in linguistics in vast quantity.

The 'system/evidence' tension is also significantly present in linguistics. A very good example, and one which will be discussed at greater length later in this thesis, is found in one aspect of Noam Chomsky's methodological approach. Chomsky advocates what he (following Edmund Husserl and quoting Weinberg, 1976, p. 28) calls 'the Galilean style' of scientific investigation, which involves 'making abstract mathematical models of the universe to which at least the physicists give a higher degree of reality than they accord the ordinary world of sensation' (Chomsky, 1980, p. 8). Given this, Chomsky justifies,

[3] For interesting historical commentary on and assessment of this issue, see Koerner, 1983 and Newmeyer, 1986b.

'the pursuit of explanatory depth which is very frequently taken to outweigh empirical inadequacies' (Chomsky, 1978, p. 10). Here, we can see that the 'system/evidence' tension is very much in evidence and, in this example of it, Chomsky is leaning heavily toward the 'drive for system' over the 'drive for evidence' (see the quotation from Quine, above).

However, the kind of tension in linguistics on which I wish primarily to focus is the 'fragmenting' variety; or, rather, I wish to focus on a particular state of affairs in the discipline of linguistics that is the result of this fragmenting tension. The tension in question involves two linguists who espouse different fundamental concepts of language, each directly and indirectly claiming opposition to the other. The two linguists in question are Noam Chomsky and Roy Harris; and I will identify their views on language as the 'abstract mechanism concept of language' and the 'integrational concept of language', respectively. I will discuss the views of Chomsky and Harris in some depth in the next three chapters but, for now, I should briefly describe their respective approaches and say something about their relationship in the discipline.

Chomsky considers language to be a discrete species-specific cognitive capacity, the 'language faculty'. His approach to the study of this presumed language faculty is to abstract some notion of language away from language use and communicational context by way of the competence/performance distinction and other idealisations. For Chomsky, linguistic 'competence' consists in the tacit knowledge that language users have of the grammar(s) of their language(s); linguistic 'performance' consists in the ways in which language users put that tacit knowledge to use. Linguistic theory concerns itself, in Chomsky's view, with competence, not performance. Another significant idealisation that Chomsky makes (for methodological reasons) is that of an 'ideal

speaker-listener, in a completely homogeneous speech community, who knows its language perfectly and who is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance' (Chomsky, 1965, p. 3). This assumption of extreme uniformity allows him to conceive of language as a fixed code to which all speakers have near identical access. The object of linguistic analysis, language, is then conceived to be a formal mechanism, a grammar, consisting of a system of categories of objects, rules, and principles, instantiated in the brain. The general form of this mechanism (universal grammar) is said to be biologically innate, virtually *causing* normal intact human beings, when exposed to some linguistic environment or other, to acquire one or more languages.

Roy Harris, on the other hand, espouses a quite different concept of language and linguistics. Although, he too, considers language to involve a cognitive capacity, for which, no doubt, the brain (among other factors) is causally responsible, certain everyday aspects of language, some obvious and some not so obvious, are held to be paramount: those aspects of that human behavioural activity normally called 'linguistic communication' that give sense to the word *language*, i.e. that it is a very complex, diverse, creative, normative, and socially interactive communicative practice. Harris holds that it is a mistake for any study of language to contrive a distinction between some abstract notion of language, on the one hand, and language use, on the other, and then estrange the one from the other, treating the abstraction as the fundamentally real object of linguistic analysis—that, he says, is to base linguistic analysis on a language myth, a mythical concept of language. Harris includes the entire diversity of linguistic communicative behaviour to be within the purview of

linguistics and, since he disputes much of the theoretical manoeuvring that linguists have generally made in order to distinguish the linguistic from the non-linguistic for the purposes of academic research, he envisions a study of linguistic communication as being a part of and continuous with a general study of communication.

Discussion of this tension does not have wide currency in the linguistics literature. Although, for example, in Roy Harris' writings (which are quite voluminous—see the bibliographic entries for some indication), there is blatant (sometimes scathing but always scholarly) criticism of Chomsky's views and of generative grammar (as well as of the various linguistic theories that share many of Chomsky's assumptions and methodology), serious consideration of that critical work seems to have been summarily neglected by the Chomskyans. There exists some positive commentary on Harris' work by non-generativists (e.g. reviews in Pratt, 1981, and Lehmann, 1990); and there seems to be a growing movement seriously building on Harris' integrational ideas. (Most of the researchers in this movement have been either Harris' students or people influenced by his students; see Davis and Taylor, eds., 1990, for a good overview of this movement.) However, there is extremely scant reference to Harris' work in the literature of generative linguistics; a rigourous combing through the literature of generative linguistics (that is, in writing by those who espouse generative linguistics) yielded only three examples that even hint at addressing Roy Harris' critical work: Chomsky, 1986, Pateman, 1987, and Borsley, 1991.

Chomsky's remarks occur in a footnote and amount to an *ad hominem* attack on Roy Harris. Speaking about various objections to his idealisations, Chomsky comments as follows on remarks of Harris', taken out of context, from a *Times Literary Supplement* article (Harris, 1983):

> One might also note some unintentionally comical objections, such as the charge by Oxford professor of linguistics Roy Harris (1983) that the standard idealisation (which he ascribes to Saussure-Bloomfield-Chomsky) reflects "a fascist concept of language if ever there was one," because it takes the "ideal" speech community to be "totally homogeneous". (Chomsky, 1986, p. 47, fn. 4)[4]

Without going into extensive exegesis, Harris' article was about translation and its relation to a paradigm of linguistic analysis which espouses a concept of language that idealises away this significant aspect of linguistic communicative behaviour. The article is as much about the sociology of modern linguistics (as much of Harris' work is)—hence Harris' use of the term, 'fascist'—as it is about linguistic theory. So far, it appears, no serious rebuttals to Roy Harris' critical writings have been issued by Chomsky.

Robert Borsley's review article (Borsley, 1991) on a collection of journal articles, public addresses, book excerpts, and previously unpublished papers by Roy Harris (Love, ed., 1990), also fails to take seriously Harris' challenges to modern linguistics. One example of this lack of seriousness concerns Harris' comments on truth conditional semantics. As Nigel Love, in his editorial preface to the book under review, notes, 'Harris takes a broader view of the scope and legitimate modes of linguistic inquiry than is currently fashionable [in generative linguistics]' (Love, ed., 1990, p. vi); so in some of the chapters of the book, Harris critically scrutinizes truth conditional semantics, an age-old mode of linguistic inquiry, still very much part of both linguistic and philosophical studies of language. Choosing to ignore the breadth of his discipline by adopting an extremely narrow blinkered view, Borsley says (with a modicum of

[4]This is actually a misquotation of Harris. There is no ascription of anything to 'Saussure-Bloomfield-Chomsky'; Bloomfield's name is never mentioned. What Harris does, in fact, say is, 'From Saussure down to Chomsky, the major theorists have turned a blind eye to the implications of translatability' (Harris, 1983, p. 1119).

self-contradiction), 'The truth conditional approach to semantics has enjoyed considerable influence within mainstream linguistics. However, Chomsky has never subscribed to it and it has been rejected by Jackendoff, Hornstein and others. Hence, it is in no sense a fundamental part of mainstream linguistics.' (Borsley, 1991, p. 290). Borsley sidesteps and trivialises Harris' work by failing to recognise it as linguistics at all. There is utterly no acknowledgment of the issues of a significant segment of the linguistics literature—i.e. the literature on truth-conditional semantics—nor, therefore, is there any argument countering Harris' critical arguments. This kind of empty complaint (in addition to some mild mud-slinging) constitutes most of the content of the Borsley review. Again, one fails to find serious consideration of Harris' views.

Trevor Pateman (Pateman, 1987, pp. 2f) does give some brief consideration to one aspect of Harris' thoughts on language—the significance of 'temporality' in language, which Harris discusses in Harris, 1981, pp. 154ff. We will look at the substance of this issue in chapter three. Pateman is a philosopher who argues for a realistic view of science and finds room for Chomskyan linguistics within that view; and on that basis rejects Harris' criticisms.

Thus, as mentioned above, since these two linguists seem hardly to be on speaking terms and there is no current debate in the discipline in which they are involved in scholarly exchange, I am to some extent inventing this tension between Chomsky and Harris. Yet, they have both widely published their respective views on language, which are largely in radical disagreement. But in spite of this lack of dialectical connexion between the Chomskyan literature and Roy Harris' writings, the roots of which, no doubt, are to be found in the sociology of the discipline, there is definitely a relationship between contrasting sets of ideas worth examining here. I think that this is so because there are,

on both sides of the tension, some points that make sense, as well as some which do not. So my purpose in 'creating' this tension of fragmentation in linguistics is to bring these two interesting linguists together in this thesis, provide expositions of their respective views, and step back and see, at least in broad strokes, some of the ways in which they contrast, where they appear to agree and disagree (and why), and where they seem to make either sense or nonsense within the wider context of science and human knowledge.

1.4 Summary

By way of introduction to the topic of this thesis, I began by discussing Thomas Kuhn's observation that tensions exist in the practice of science, introducing some other varieties beside the one that he mentioned; and I argued that many of these same kinds of tensions exist in linguistics. I discussed an especially serious tension in linguistics, a 'fragmenting' tension, in which the discipline is split with regard to the fundamental character of the object of study—the concept of language. On one side of the split, which I identified with Noam Chomsky, language is conceived to be an abstract mechanism, consisting of various kinds of categories of objects, principles, and rules, all instantiated in the brains of language users (viz. only Homo sapiens). On the other side of the split, the side that I identified with Roy Harris, language is conceived to be a very complex, diverse, and creative socio-normative practice, in which the brain (among myriad other factors) is, no doubt, causally involved. I called these two views, respectively, the 'abstract mechanism concept of language' and the 'integrational concept of language' (the one being my term for Chomsky's views, the other being Harris' term for his own views).

I mentioned that the advocates of these two views claim, either explicitly or

implicitly, that, for the purposes of language study (i.e. for the methodological basis of linguistic analysis), the other's view is wrong and that these views are incompatible. I asserted that in spite of this supposed incompatibility, aspects of both of these two concepts of language appear to make sense. This, I suggested, adds another interesting dimension to the tension in linguistics under discussion—two ostensibly incompatible concepts of language, both making some good sense.

If one takes this to be the case (viz. that there is both wheat and chaff in these two views), then one has to believe that at some point, the vicious aspects of each view will go by the board and the virtuous aspects of both views will be part of a single coherent concept of language, providing a better basis for the study of linguistic communication. If such a consilience can eventually be made, the 'science of language' will have thereby taken steps toward resolving a tension that I believe has some significance. My modest aim here is merely to provide sketches of the views of Chomsky and Harris and go some distance in arguing which is the wheat and which is the chaff.

My basic strategy, then, will be to give an uncritical exposition of Noam Chomsky's concept of language and linguistics, followed by an uncritical sketch of Roy Harris' views. I will then bring these conceptions together and show where I think there are details on which Chomsky and Harris appear to agree and details on which they obviously disagree. While my sketches of Chomsky and Harris will be fairly comprehensive, I will mainly bring out aspects of their respective concepts of language that will provide the relevant contrasts for comparison.

The remainder of this thesis will have the following structure. Chapter Two will provide a sketch of Chomsky's concept of language as an abstract

mechanism and his views of how linguistics ought to proceed in its study. Chapter Three will sketch out some of the themes and arguments of Roy Harris' integrational concept of language. I will discuss his criticisms of modern linguistics and the views on language on which it is based, and his own concept of language and linguistic investigation. Chapter Four will be a discussion about Chomsky's and Harris' views—in particular, Chomsky's views in light of Harris' criticisms and subsequent positive views—and will be aimed at determining their respective assets and liabilities; and, given the thus-determined assets, showing what a sensible and coherent study of language ought to include. The final chapter, Chapter Five, will be a concluding chapter intended to draw together the various themes discussed in the thesis and draw the moral of the tale.

Chapter 2
Noam Chomsky's Concept of Language: Abstract Mechanism

2.1 Introduction

In this chapter, I want to sketch the outlines of Noam Chomsky's concept of language as an abstract mechanism and his collateral views on linguistics; in particular, the approach that he has espoused since the early 1980's, the so-called 'principles and parameters' theory (Chomsky, 1981). This sketch will be mainly *expository* of Chomsky's views, rather than *critical.* Since Chomsky's work is voluminous and complex, and, in fact, the details of his theories have changed and developed in significant ways over the years, I am going to select for discussion only certain of what I take to be crucial highlights of his methodology and the assumptions underlying it since it has been these that have changed the least (if at all, significantly) over his career.

There are several related Chomskyan themes that, by and large, come up in almost every publication on the nature of language that Chomsky has written (with the exception of some of his purely technical writing in syntax). These themes and the content that he gives them largely constitute his concept of language and linguistics. In recent years, Chomsky's mode of introducing these various themes (and his solutions to problems that they raise) has been to pose four questions that he takes to delimit the subject matter of linguistics. The first three of these questions he associates with the names of thinkers from the history of ideas whose views he believes to be, in essence, correct.

In Chomsky, 1991a (p. 6), for example, he makes certain of his fundamental assumptions plain (although not one of the most foundational, viz. the competence/performance distinction; see below) and then puts the questions as follows:

> The basic concept, which identifies the subject of inquiry, is the concept of "having" or "knowing" a language. We take this to be a cognitive state of the mind/brain. Concerning this concept, three fundamental questions arise:
>
> 1. What constitutes knowledge of language?
> 2. How is such knowledge acquired?
> 3. How is such knowledge put to use?

He then mentions the fourth question there but a perhaps more succinct formulation of it occurs in Chomsky, 1988 (p. 3):

> 4. What are the physical mechanisms that serve as the material basis for this system of knowledge and for the use of this knowledge?

An absolutely fundamental assumption that is suppressed in Chomsky's statement above, namely, 'The basic concept...is the concept of "having" or "knowing" a language', is the *competence/performance* distinction. This distinction was first explicitly made in Chomsky's *Aspects of the Theory of Syntax* (Chomsky, 1965, p. 4), but was implicit in the very earliest work from the mid 1950's (Chomsky, 1975, p. 7)[1]. He distinguishes between what language users

[1]Chomsky's book, *The Logical Structure of Linguistic Theory*, although published in 1975, was actually written during the mid fifties; and, in fact, was his first statement of generative linguistics. The old manuscript was apparently published more or less intact, together with a new introduction.

know about their language and how language users use that knowledge; the former is identified with their *linguistic competence* and the latter is identified with their *linguistic performance*. The idea here is that in order for people to do anything with language, they need to know the grammar of their language; when they know that, they can put that knowledge to use and if they don't know the grammar, they simply won't be able to use it. The separation of questions 1 and 3 clearly indicate that the competence/performance distinction is implicit in the list of questions and, hence, in Chomsky's view of language and linguistics. I should add, furthermore, that Chomsky sees the study of linguistic performance as depending on the study of competence:

> There seems little reason to doubt the... view that investigation of performance will proceed only so far as understanding of underlying competence permits. (Chomsky, 1965, p. 10)

The first question, about what constitutes knowledge of language, Chomsky associates with Wilhelm von Humboldt and has called it 'Humboldt's problem' (Chomsky, 1991a, p. 7). The second question, about language acquisition, he associates with Plato and calls it 'Plato's problem' (ibid., p. 15). The third question, about language use, he associates with René Descartes and calls it 'Descartes' problem' (ibid., p. 17–8). And presumably (in part, at least) since there are no likely precursors in modern neurophysiology, Chomsky doesn't associate any particular name with his fourth question, about the material basis of language capacity. (I might conjecture, parenthetically, at this point that Chomsky's purpose in associating those particular historical figures with his otherwise reasonably neutral questions seems to be that he adopts, in essence, solutions to those questions with the same flavour that those figures developed, adding perhaps to the psychological persuasiveness of his exposition. He identifies the problems with the solutions that he espouses.

However, the fact is that those questions were not the sole inventions of those thinkers, nor have their solutions been the only or even most plausible ones—indeed, any solutions to those questions have always existed in an atmosphere of contention at some time or other and to some extent or other.)

In my exposition of these Chomskyan themes (as well as some other relevant themes and their various interrelationships), I will follow his own line of development in terms of these questions (although not in the order of their enumeration). In general, I have tried to use the clearest and most recent formulations (in that order of priority) of Chomsky's views. As said above, this chapter will mainly be expository of Chomsky's views on language; it is not intended to be an exhaustive critical assessment but just a general outline of his framework for the study of language so that in chapter four a critical contrast or comparison can be made with a similar treatment of Harris' views (given in the third chapter).

2.2 Chomsky On Mind, Language, and Methodology

2.2.1 Question 4: Neural Substrates?

Noam Chomsky has been interested in the study of language primarily because he is interested in discovering the nature and properties of the human mind. This seems to have been an overtly stated primary motivation from at least the early 1970's:

> There are any number of questions that might lead one to undertake a study of language. Personally, I am primarily intrigued by the possibility of learning something, from the study of language, that will bring to light inherent properties of the human mind. (Chomsky, 1972, p. 103.)

And more recently, taking 'psychology' as the scientific study of mind:

> The first three questions [quoted above] fall within the domain of linguistics and psychology, two fields that I would prefer not to distinguish (or more precisely, those areas of linguistics with which I am concerned here) as just that part of psychology that deals with the particular aspects of this discipline outlined in the first three questions. (Chomsky, 1988, p. 6)

This interest in discovering the nature of the human mind on Chomsky's part has led him to consider the discipline of linguistics (or at least his style of linguistics) to actually be a branch of cognitive psychology, which will eventually enable neuroscience, to the extent that it is possible, to provide a true scientific theory of the mechanisms and processes that underly what we commonly refer to at a high level of abstraction from brain mechanisms as 'mind'. The idea is that the capacity to use language is a mental faculty and as such its study is in the domain of cognitive psychology—what Chomsky takes to be the *scientific* study of the mind and cognitive mechanisms. In general accord with one of the main strands in the Western classical traditon, by treating language as a means of expressing and transmitting thought, he believes that the study of language is in fact the study of a discrete aspect of mind. As a branch of cognitive psychology, then, linguistics is firmly fixed in the realm of scientific inquiry since science approaches,

> ... traditional questions [about mind, language, and human nature] in light of what we now know or hope to learn about organisms and about the brain'. (Chomsky, 1988, p. 1)

Linguistics is psychology, psychology is science, hence, by transitivity, linguistics is science. Thus, having contended that natural science is the proper place for linguistics, Chomsky also believes that the mental has a physical basis in the brain. Here, we are on the terrain covered in Chomsky's fourth question.

Now, Chomsky urges that,

> The brain, like any other system of the natural world, can be studied at various levels of abstraction from mechanisms: for example, in terms of neural nets or computational systems of rules and representations. (Chomsky, 1991a, p. 5)

And he suggests that because of the solution to the first question (to be discussed below) namely, that knowledge of language is an abstract computational system of rules and representations, determining the abstract system is logically prior to contriving neural nets (presumably since any configuration of neural networks would, by necessity, be modelling some abstract computational system or other). So, first develop the abstract computational system, then, perhaps, model with neural networks as a means of getting to the more fundamental reality of actual neural mechanisms. Thus, about the fourth question, he claims that, 'This question is beyond reach, or rather, is premature' (Chomsky, 1991a, p. 6). He says,

> ...it [the fourth question] is a relatively new one, in fact one that is still on the horizon.... Insofar as the linguist can provide answers to questions 1, 2, and 3, the brain scientist can begin to explore the physical mechanisms that exhibit the properties revealed by the linguist's abstract theory. In the absence of answers to these questions, brain scientists do not know what they are searching for; their inquiry is in this respect blind. (Chomsky, 1988, p. 6)

Hence, Chomsky believes that the discoveries by generative linguists of the abstract formal properties of language, that underly the ability to use language, will inform the neuroscience of the future; those neuroscientists will then know what to look for (i.e. the formal abstract systems developed by generative linguists instantiated somehow in the grey matter) in their quest for the true picture of the capacity for knowing language at the level of description of neurophysiology. And question 4, about the underpinning neural reality of linguistic capacity, is effectively put on hold. Thus Chomsky has very little to

say about his fourth question and so, as far as he is concerned, questions 1, 2, and 3 constitute the subject matter of linguistic inquiry.

2.2.2 Question 1: Language as a System of Knowledge

Chomsky associates the problem posed in his question 1, about what constitutes knowledge of language, with the early nineteenth century linguist and social philosopher Wilhelm von Humboldt because of '...his insight that language is a system that provides for infinite use of finite means' (Chomsky, 1991a, p. 7). Here, Chomsky is invoking what he has characterised as the 'creative aspect of language' (e.g. see Chomsky, 1966, pp. 3–31), which amounts to the (not uncontroversial) observation that on limited experience of linguistic data, native speakers can produce and understand a potential infinity of novel expressions. If, indeed, language users can be creative with language in this sense, then Humboldt's 'insight' suggests to Chomsky that knowing a language amounts to having at one's disposal an abstract system that is capable of generating not just that potential infinity of expressions but structural descriptions of them, as well. This generative system is, in Chomsky's terms, a grammar; and knowing it is what constitutes linguistic competence or, said another way, knowledge of language. He asserts (Chomsky, 1991a, p. 7) that in Humboldt's day the descriptive language of mathematics wasn't well enough developed to provide an adequate formal systematic characterisation of grammar—that had to wait until the middle of the twentieth century when the formal theories of recursive functions, first-order logic, finite automata, and the like had become fairly fully developed by mathematicians and logicians such as Gottlob Frege, Bertrand Russell and Alfred North Whitehead, Emil Post, Kurt Gödel, Alfred Tarski, Claude Shannon, and, indeed, Chomsky himself.

From the assumptions discussed above about the physical basis of mind and language, this system of linguistic knowledge, as Chomsky conceives it, is 'internalised' in the mind (remembering that he claims to be speaking at a fairly high level of abstraction about what will eventually be seen as concrete neurophysiology); indeed, since the mid 1980's, Chomsky has been calling this internalised system of grammar 'I-language' (e.g. Chomsky, 1986, pp. 21ff). The 'I-' of this term 'I-language' is intended to indicate both 'internalised' and 'intensional'—'*[I-language is]... a specific characterisation, in intension, of* a certain function that enumerates (generates) structural descriptions' (Chomsky, 1991a, p. 9). Thus I-languages are facts about the individual psychology of language users and, hence, about the individual brains of those language users.

I will note here that the phrase *internal linguistics* was coined by Saussure (Saussure, 1916, pp. 40–3) [2]. Although Saussure's structuralism is very different in many details and principles from Chomsky's generative grammar, there are many similarities, or, to put it another way, they are in many ways species of the same general conception—and the 'internalisation' of language as a system is one of the ways. The details of their respective accounts are entirely different—e.g. what they take to be a language community, and the exact nature and workings of the mechanisms that determine linguistic structure—but they both conceive of all of the social, educational, political, normative, and functional aspects of language, as being fundamentally external to the system of language itself. The 'internalisation' of language is, in effect, a decontextualisation, or, as Roy Harris calls it, a 'segregationalist' concept of language (Harris, 1990d, pp. 198ff). I will return to the topic of decontextualisation in

[2] I am here, and in subsequent references from Saussure's *Cours*, using Saussure's own pagination in the original French publication, which accompanies the cited translation.

the next two chapters.

The I-language is contrasted with what most linguistic thinking has been about, namely 'E-language', 'where "E" is to suggest "externalised" and "extensional" ' (ibid.). Chomsky disparages the notion of E-language and the various interpretations of it, such as a language being conceived extensionally as an infinite set of expressions or that a particular language, English for example, can be identified as a particular set of expressions that is the shared abstract possession of a community of speakers and outside the minds of speakers. He claims that much misunderstanding has been the result of taking the notion of E-language to be the object of linguistic inquiry and has unnecessarily fostered empty debate; for example, the underdetermination/indeterminacy debate with Quine. Indeed, these days, due to his account of language acquisition and the form of the system of linguistic knowledge (i.e. the 'principles and parameters' account, which will be discussed below), Chomsky makes the radical denial that everyday talk of French or English or !Kung language (E-language concepts), though perhaps useful in mundane discourse, is a significant coherent notion for the empirical study of language. He says:

> As far as I can see, the concept of E-language has no clear status in the study of language, and is best abandoned.... Even if it can be given a coherent formulation, I know of no reason to suppose that the properties of E-language, however construed, are of any empirical significance.... I think it would be proper to return to the original conception of generative grammar in which I-language is a central notion, but E-language, if it exists at all, is derivative, remote from mechanisms, and of no empirical significance, perhaps none at all. (Chomsky, 1991a, p. 10)

This point is worth emphasising: Chomsky is here claiming that what normal speakers of any language commonly refer to as their language, for example,

French or English, *does not exist*; the use of terms like 'English language' is just a certain facile way of speaking about certain 'sociopolitical' and 'normative-teleological' dimensions of our commonsense notion of language, which are abstracted away from and have no place at all in the scientific study of language (Chomsky, 1986, pp. 15–6). I will touch on this topic once again in the next subsection.

So for Chomsky, the solution to Humboldt's problem, about what constitutes knowledge of language (question 1), is Humboldt's solution (as Chomsky describes it) dressed up in garments from modern mathematics and formal logic. E-language, language commonly understood as something out in a community of speakers, with all of its attendant sociopolitical and normative-teleological dimensions, is discarded; and I-language, language as an abstract computational system capable of generating a potential infinity of novel expressions and actually realised in the brains of language users, constitutes the subject matter of linguistics. Further elaboration on just what kind of abstract computational system I-languages are is covered in Chomsky's answer to his second question.

2.2.3 Question 2: Language Acquisition

Chomsky's question 2, his 'Plato's problem', is about language acquisition—how language users acquire the capacity to know and use language. He rhetorically invokes Plato's name because he sees his own solution to the question as being in the same rationalist tradition as Plato's philosophy and, in particular, his doctrine of recollection. In answer to the question, 'How can we know so much on such little evidence?', Plato's view is that we remember knowledge from previous transmigrations of the soul (e.g. *Meno*, 81b–86b). Chomsky's

view, though just as realist as Plato's, is thoroughly physicalist (scientific realism): rather than the 'memory' residing in the soul, it resides in the genetic endowment of humans that produces the capacities inherent in human brains (see below).

There are several closely related lines of thought in the rationalist account of mind and of language acquisition that Chomsky espouses, much of it inspired by Descartes. One is the species-specificity of language to humans. Chomsky (Chomsky, 1982, pp. 18ff) brings the ape-language research of, for example, Premack (1976) and Terrace (1979) to bear on this issue, interpreting that research to indicate that even our genetically closest primate relatives, the chimpanzees[3], fail to have the capacity to know and use language. For example, Chomsky says:

> ... the interesting investigations of the higher apes to acquire symbolic systems seem to me to support the traditional belief that even the most rudimentary properties of language lie well beyond the capacities of an otherwise intelligent ape. (Chomsky, 1980, p. 239)

Chomsky's view is, presumably, that there must be something very distinguishing in that less-than-one-percent genetic difference from chimps. But whatever the physical differences turn out to be at the level of molecular genetics, they will surely include human cognitive capacities such as language (Chomsky, 1988, pp. 37–9).

This thinking leads to the other main rationalist feature of Chomsky's view: innate ideas. The genetic constitution of Homo sapiens provides for the genetic inheritance of innate cognitive capacities, among them a discrete part of the mind (actually brain) that is devoted to language; this 'language

[3]'The similarities between humans and chimpanzees at the chromasomal, genetic, and molecular levels are truly astounding. Genetically speaking, we humans have a more than 99 per cent, overlap with chimpanzees' (Ruse, 1986, p. 108).

faculty', as he calls it, has the character of one of the physical organs of the body; Chomsky has compared it to the physical growth of bodily organs in the way that he believes it to be genetically programmed to mature in normal ways, barring physical injury; for example, he asserts:

> ...I would like to suggest that in certain fundamental respects we do not really learn language; rather grammar grows in the mind.
>
> When the heart or other organs of the body develop to their mature form, we speak of growth rather than of learning. Are there fundamental properties distinguishing the development of physical organs and of language that should lead us to distinguish growth, in the one case, from learning, in the other? In both cases, it seems, the final structure attained and its integration into a complex system of organs is largely predetermined by our genetic programme, which provides a highly restrictive schematism that is fleshed out and articulated through interaction with the environment.... (Chomsky, 1980, p. 134)

He provides two arguments for his espousal of the rationalist innateness view: the so-called 'poverty of stimulus' argument (which inspired Chomsky to invoke Plato's name) and what I will call the 'poverty of sense' argument against empiricist-style learning mechanisms.

The poverty of sense argument against any empiricist account of language learning amounts simply to Chomsky's assertion that the kinds of devices that empiricists claim operate in language acquisition are too unclear to be meaningful, that they have not made enough sense of them with empirical backing to even be considered as useful notions to discuss seriously language acquisition. Chomsky has had a long-standing dispute with Hilary Putnam on this issue, for example. Putnam (1980b, pp. 342ff) claims not only that generalised learning mechanisms, induction, and other kinds of learning devices can partially account for language acquisition, but that general intelligence is a factor, as well. Chomsky's line is that general intelligence appears to play *no* role in language acquisition (Chomsky, 1991a, p. 17).

The poverty of stimulus argument is the most cogent of the two arguments that he adduces in favour of the rationalist innateness view of language. Chomsky finds it altogether astonishing that a human child acquiring his or her native language(s) actually is successful in an amazingly short period of time (typically six to eight years), according to Chomsky:

> A normal child acquires this knowledge [of his native language] on relatively slight exposure and without specific training. He can then quite effortlessly make use of an intricate structure of specific rules and guiding principles to convey his thoughts and feelings to others, arousing in them novel ideas and subtle perceptions and judgements. (Chomsky, 1975, p. 4)

This is in spite of the fact that the examples of language use that he or she has to 'learn' from are not only typically *degenerate*, in the sense that they are full of errors and mistakes, incomplete sentences, stoppages and restarts, etc., but also *impoverished*, in the sense that the examples contain no evidence for certain properties of the grammars that the child acquires. An example of this kind of impoverished data, on the basis of which the child would have to learn language, recently cited by Chomsky (Chomsky, 1986, p. 8), is the following (using Chomsky's numbering of examples):

(6) John is too stubborn to talk to Bill.

(7) John is too stubborn to talk to.

About these examples, Chomsky says, disparaging empiricist 'learning mechanism' accounts of learning the correct interpretations of these sentences:

> Applying inductive procedure[s] to (6) and (7), it should be that (7) means that John is so stubborn that he (John) will not talk to some arbitrary person, on the analogy of (6). But the meaning is in fact quite different: namely that John is so stubborn that some arbitrary person won't talk to him (John)...this is known without training or relevant evidence (ibid.)

Thus Chomsky concludes that there is a real sense in which we do not 'learn' language, we are born 'knowing' language; humans must have a built-in capacity to, almost of necessity, acquire specific languages. Thus, as Simon Blackburn has put it, 'The innate cognitive structure fills the gap between impoverished fragmentary input and rich extended output' (Blackburn, 1984, p. 28).

So Chomsky believes that humans, uniquely, have a genetically based biological endowment, the 'language faculty', that gives us the capacity to 'learn' one or more I-languages which are '... resources of the mind for thought and its expression' (Chomsky, 1991a, p. 12). The language faculty is thought by Chomsky to be a subsystem of the human nervous system. All intact (i.e. non-malformed with respect to normal neural functioning) human beings have this endowment, which has an initial state, which is the same for all indiviuals, and develops through various transitional states as individuals experience their linguistic environment and mature to reach a fairly steady state—these states being states of the brain. Interaction with the linguistic environment has a triggering effect on the innate language acquisition mechanisms. This describes, in rough, the process of language acquisition according to Chomsky.

The initial state of this language faculty is explained, by Chomsky, with the theory of Univeral Grammar (UG). Taking his Humboldtian answer to his first question in hand—viz. that language is a system of knowledge that generates structural descriptions of the, in principle, infinity of natural language expressions with a finite generating mechanism—Chomsky theorises that this initial state of the language faculty is highly constrained in the number of possible languages that it can generate by containing a number of language-invarient (i.e. not language-particular) rules and principles; but quite open within the

limits of those constraints by containing a finite set of (perhaps bivalent) parameters, the settings of which distinguish particular languages. Exposure to a linguistic environment in infancy begins the process of parameter setting; thus the triggering effect of the linguistic environment, mentioned above, amounts to this parameter-setting process. A simple example of parametric variation among languages would be the location of the main syntactic category, the 'head', occuring in its phrasal category—e.g. the main noun in a noun phrase, main verb in a verb phrase, preposition in a prepositional phrase, etc. English is a 'head-initial' language, whereas Japanese, for example, is a 'head-final' language. In the English prepositional phrase *to John*, the preposition, the head of the phrase, occurs in initial position; in Japanese, the equivalent prepositional phrase would, in effect, be *John to* because in Japanese, the setting of this parameter would be 'head-final'. These parameters are set in the language mechanism, instantiated in the brain of an individual learning his native language, without conscious control merely by being exposed to the linguistic data of his surrounding environment.

Chomsky further claims that I-languages are structured in specific ways. According to Chomsky, I-language is multiply modular:

> UG consists of various subsystems of principles; it has the modular structure that we regularly discover in investigation of cognitive systems. Many of these principles are associated with parameters that must be fixed by experience. (Chomsky, 1986, p. 146)

The modules which contain these principles and their associated parameters accomplish such things as case assignment, pronoun reference, quantifier scope, syntactic order of the constituents of expressions, and a complex array of other functions. Thus through the interaction of all of these modules, the output of the generative mechanism yields structural descriptions of grammatical ex-

pressions, representations of their meanings, and representations of the ways that they are pronounced.

Another distinction that is made is between what Chomsky calls the 'core language' and the 'periphery' (Chomsky, 1986, p. 147). The main component of the grammar is the 'core language', '...where a core language is a system determined by fixing the values for the parameters of UG' (ibid.). The periphery, says Chomsky, '...is whatever is added on in the system actually represented in the mind/brain of a speaker-hearer' (ibid.). The 'whatever is added on' is meant to deal with the 'marked' (meaning 'unruly', i.e. not possible of being derived from the principles and parameters of UG) aspects of a language, that is, the various exceptions, such as irregular morphology and idioms. The mechanisms operating on the periphery are not very well understood, but Chomsky conjectures that, 'There may...be specific principles of markedness relating various parameters, which need not and may not be fully independent...it may be that peripheral constructions are related to the core in systematic ways say, by relaxing certain conditions of core grammar' (Chomsky, 1986, pp. 146–7). However, he seems to believe that all of the peripheral aspects of language, as well as all of the typical socio-political and normative-teleological E-language trappings, will, in time, be banished from the true study of language; he says:

> Within a principles and parameters approach, we assume that language acquisition involves the fixing of parameters, yielding what what we may call the "core language", including the lexicon. But what actually develops in the mind/brain of a person living in a normal environment is very different. It contains a "periphery" of marked exceptions such as idioms, irregular verbs and the like, and involves a mixture of systems resulting from the diversity of languages ("dialects" or "idiolects") that coexist in any real human community. When the study of language is able to extricate itself from prejudice, dogma and misunderstanding,

> we will, I believe, dismiss all of this as tenth-order effects from uninteresting accident, focussing our attention on the deeper properties and principles that lead to real explanation and understanding of essential properties of the human mind. At that point, we will no longer distinguish between core and periphery. Rather, linguistics will be the study of core language, a state that would be attained by the language faculty under the ideal conditions, unrealised in a complex world. But that day is still far away. (Chomsky, 1991b, p. 42)

It is important to emphasise that the point here is that Chomsky thinks that the study of what he calls 'core language' *is really the only legitimate study of language.*

It is also important to emphasise Chomsky's belief that it is wrong-headed (indeed, 'irrational' (Chomsky, 1991b, p. 42)) to conceive of language as being an ability or set of abilities, or a social or normative practice or activity.

Thus Chomsky's answer to Plato's problem, the problem of how language is acquired (question 2), is that humans enjoy a species-specific genetic endowment, the language faculty, that has an innate structure, uniform across individuals, consisting of a set of language invarient principles and language dependent parameters (UG) that are set by experience of one's linguistic environment. When the parameters are all fully set from the triggering effects of experience, a complete I-language system is 'operative' (ibid., p. 146), instantiated in the brain of the language user; he is then a 'speaker-hearer' of his own particular I-language.

2.2.4 Question 3: Language Use

Chomsky's question 3, what he calls Descartes' problem, queries how the language faculty is put to use, that is, with linguistic performance (in Chomsky's special sense). He claims that this particular problem has two distinct aspects,

one having to do with production and the other having to do with perception. Chomsky characterises these separate problems as follows:

> The perception problem has to do with how we interpret what we hear (or read; I put this clearly secondary matter aside here). The production problem, which is considerably more obscure, has to do with what we say and why we say it. (Chomsky, 1988, pp. 4–5)

Chomsky associates Descartes with the problems of accounting for linguistic performance because he believes, along with Descartes, that, 'Human action, including the use of rules of language, is free and indeterminate' (Chomsky, 1986, p. 222). Chomsky has been referring to this aspect of linguistic knowledge as 'the creative aspect of language' (Chomsky, 1966, pp. 3ff) for many years. 'Creativity', in his sense, amounts to the ability to produce and understand a potential infinity of novel expressions. The problem of accounting for performance, then, amounts to accounting for Descartes' description of linguistic creativity.

With regard to the perception problem, in Chomsky's view, determining 'how we interpret what we hear' reduces to determining, '...the process by which a person assigns a structural description to a presented expression in a particular situation' (Chomsky, 1991a, p. 18). One thing that Chomsky cites as assisting this process is the assumption that I-languages are, '...partially shared by others in the various communities with which people associate themselves in their normal lives' (ibid., p. 19). This is the I-language version of the idealisation of 'ideal speaker-hearer in a totally homogeneous speech community'; and it means that the parameter settings of peoples' I-languages within the same speech community are close enough that the same expressions (by and large, one supposes) will be given the same structural descriptions by each individual I-language. This assumption will virtually guarantee understand-

ing; all that remains to be provided is an account of a parser that will take expressions as input and output corresponding structural descriptions. The parser will '...incorporate the I-language along with other elements—certain strategies and procedures, a certain organisation of memory, and so on...' (ibid.). Chomsky does not seem to have such an account on hand but he thinks that this line of thought constitutes 'a valid idealisation' (ibid.).

With respect to the production problem, Chomsky has doubts that much ground will be gained in understanding this aspect of Descartes' problem. He considers the question of the production of language to be, '...a central part of a more general problem of human action' (Chomsky, 1991b, p. 40). However, he considers the problems of the determinants of human action to be still mysterious; he says,

> These topics remain mysteries, beyond the range of our understanding, at least for now, possibly in principle, as a consequence of our biological nature. Here, we seem to be reduced to rather empty speculation, though one can imagine possible progress, at least in determining why the problem seems beyond our grasp. (ibid., p. 41)

So Descartes' problem is a difficult one in Chomsky's view. It involves elements of our cognitive equipment that 'go beyond the language faculty' (Chomsky, 1988, p. 64). Part of the problem is thus understanding these other cognitive systems and the ways in which they interact with the language faculty and, in particular, the I-languages of individuals.

2.3 Summary

I began by citing what Chomsky takes to be the four defining questions of linguistic inquiry. Taking the notion of 'knowledge of language' (or, alternatively, 'language as a system of knowledge') as the starting point (i.e. an undefined

primitive), this set of questions queries (1) what constitutes knowledge of language, (2) how knowledge of language is acquired, (3) how knowledge of language is used, and (4) what neurophysiological correlates underpin knowledge of language. I pointed out how these questions, particularly the separation of (1) and (3), presuppose the competence/performance distinction, the view that knowing a language is distinct from and logically prior to using one.

About question (1), Chomsky's answer is that knowledge of language consists in individuals having an internalised grammar of their language. This internalised grammar, what Chomsky calls I-language, is a formal abstract mechanism that strongly generates structural descriptions, including representations of both meaning and pronunciation, of the expressions of the individual I-language in question.

Chomsky's solution to question (2) involves what he calls universal grammar (UG), which consists of a finite set of language invarient rules and principles and a finite set of initially unvalued associated parameters. He theorises that human beings have a genetically-based capacity for language which he terms the language faculty. The initial state of this language faculty is UG. The linguistic experience of an individual acquiring their native language has a triggering effect in setting values for the parameters. Once all of the relevant parameters are set, the individual has or 'knows', in Chomsky's terminology, an I-language.

Questions (3) and (4) are presently the most difficult of the four. Question (3) Chomsky sees as having two aspects: a production aspect and a perception (or understanding) aspect. The production aspect of the question of language use—the question about how and why we say what we say—is, in Chomsky's view, possibly unsolvable because of the inherent limitations of the human

mind on understanding. Chomsky has greater confidence that the perception aspect will be solvable. Here, assuming the principles and parameters theory, the assumption that individuals within the same language communities develop the same (or closely similar) I-languages, together with the assumption that they have, as a part of their language faculty, a parsing mechanism that incorporates their I-language, and other cognitive systems, to yield structural descriptions of the expressions that are presented to them, Chomsky thinks that there is a good chance that progress can be made on understanding the perception problem.

Question (4), about the neurophysiological underpinnings of the abstract mechanism, is currently unanswerable, according to Chomsky. What is required is a fuller account of the language faculty couched in the abstract terms of the linguist; then neuroscientists will be in a position to know what they are looking for in the attempt to discover the neurophysiological correlates of the language faculty.

This sketch of the essentials of Chomsky's abstract mechanism concept of language and approach to its study should be enough to provide the relevant contrasts to the account of Roy Harris' concept of language in the next chapter.

Chapter 3
Roy Harris' 'Integrational' Concept of Language and Linguistics

3.1 Introduction

This chapter will be devoted to sketching the outlines of the concept of language and linguistics that Roy Harris has been espousing since the late seventies. This sketch will be based mainly on his two related books, *The Language Makers* (1980) and *The Language Myth* (1981); but I will be using some of his other books, published papers, and lectures as well. This exposition of Harris' views will be considerably more lengthy than the previous chapter on Chomsky for a number of reasons. Chomsky's views on language are by far the more well-known and are, indeed, most similar, in fundamental ways, to those of the majority of linguistic theorists; an exposition of his views is also simpler in that an extensive historical analysis is not needed. Harris' work, on the other hand, is not at all widely known and his views, based in large part on his complex exegesis of the historical development of language and linguistic thinking in Western civilisations, requires a more detailed treatment; and, in addition, his views really make sense only in the context of that exegesis. Chomsky is representative of the orthodoxy; Harris attempts to play the iconoclast.

Roy Harris is a curious phenomenon. For many years, he has taught linguistics and done linguistics research in a prominent institution, Oxford University (where he is emeritus professor), and he has published a great many articles in

prominent journals and books on the subject of theoretical linguistics and its foundations—and yet neither he nor his writings have achieved prominence. Harris would, no doubt, say that this is due to the fact that the views that he criticizes are so well entrenched in the minds of modern linguists that their resistance is sufficient to move them to cover their ears and turn the other way; modern linguists, at least those who are the targets of his criticism, on the other hand, would no doubt say that his views are so radically out of step with mainstream linguistics that they are not worth hearing—so wide is the gulf between the concept of language that underlies most of modern mainstream linguistics and Harris' concept of language. His writings have blasted the roots of modern linguistics and yet his blasting has not been countenanced—except in ways that tend to confirm his criticisms (note my brief discussion of this above, in Chapter One). His conception of language and, hence, the way linguistic investigation ought to proceed is without question at odds with most of modern linguistics. His manner of exposition in his writings is not designed to leave the feathers of modern linguists unruffled; for, in much of his work, his intention is to bring into sharp focus, for the benefit of modern linguists, the social, ideological, and cultural foundations that make them what they are, as linguists, as Western intellectuals who have an interest in examining linguistic communicative behaviour and human nature. Thus, much of Roy Harris' work has a negative character, critical of the direction that modern linguistics has generally taken and critical of the path from whence that direction originated in antiquity. He also develops, albeit in a generally programmatic way, a positive contribution, armed with an alternative conception of language and linguistic investigation, pointing the way to what he deems to be a sensible way of conducting linguistic research.

The concept of language that Roy Harris takes to task in the critical side of his work is not actually a single simple concept that has been propagated unchanged through the ages, from its roots in Western antiquity to an exalted position with modern linguists; it is a multifarious and complex set of concepts, doctrines and principles that have manifested themselves in different versions and in different subsets with multitudinous proponents at different times. For example, what Harris has called the 'surrogational concept of language' (Harris, 1980, pp. 33ff), based on the doctrine that words are 'surrogates' for the things they stand for, has at least two versions depending on just what words are taken to stand for: e.g. mind-dependent ideas—mental representaions, in modern parlance—or real world phenomena, both well known to linguists and philosophers. Surrogationalism held a place of prominence with the study of logic in antiquity, but has in subsequent periods variously lost and regained its prominence—at present, surrogationalism constitutes a part of the modern linguistic orthodoxy. Thus, Harris' arguments against modern linguistics and its foundations are not entirely focused on the work of Noam Chomsky and generative linguistics, but certainly include them, either as being a species of the generic brand of linguistic theorising that he wishes to bring into question or being symptomatic of the general concept of language that underlies that brand of theorising. Some of his arguments are aimed directly at Chomsky's work and that of his generativist colleagues; other arguments are aimed at Chomsky's precursors (Saussure, for example) in the line of tradition that founds them all. So, in some cases, by critically discussing the ideas of Chomsky's predecessors, Harris is indirectly discussing Chomsky's ideas. Some of Harris' critical arguments, of course, do not apply at all to Chomsky's work; two examples would be those specifically directed at Leonard Bloomfield's logi-

cal empiricist assumptions and those aimed at generative linguists whose views Chomsky does not share[1]. Thus, since this thesis is aimed at contrasting Harris' views and Chomsky's, in this chapter, one of my tasks in giving exposition to Harris' views on language and linguistics is to sort out which among his arguments are applicable to Chomsky's linguistics and which can be passed over because of only distant relevance—and still give a comprehensive account of Harris' views.

In outlining Harris' concept of language and linguistics, I shall begin my discussion with the more critical aspects of his work, since his concept of language is motivated and developed in his writings in contradistinction to the concepts of language that he believes have held prominent places in Western thinking about language, as present in Greek antiquity as it is in Noam Chomsky's work. (Reading through Harris' work, one begins to see the outlines of his own concept of language form as he progresses in his discussions of the alleged follies of linguistic analyses he criticizes—almost like a visual artist would use the negative space surrounding a subject figure to define that figure. Indeed, Harris' writing has a literary style, more akin to George Steiner, for example, than the more technical style of most linguists and philosophers—which makes him very readable but more difficult to grasp.) After examining this critical aspect of Harris' work and, thereby, his concept of language, I will discuss the general outlines of how, in Harris' view, the study of language ought to proceed. We will then, in the next chapter move on to a discussion of the contrasts between Chomsky's views and Harris' views; pointing out both

[1] It should perhaps be noted that 'generative linguistics' began fairly strictly as Chomsky's linguistics; but since its inception, generative linguistics has become quite diverse and much of this diversity Chomsky, himself, is vehemently hostile toward (for example, the framework of Generalised Phrase Structure Grammar, the principles of which are found in Gazdar, Klein, Pullum, and Sag, 1985).

where they appear to agree or disagree, and where, I think, each makes sense and each fails to.

3.2 Roy Harris On Modern Linguistics and Its History

3.2.1 The Language Myth

Roy Harris believes that modern linguistics is founded upon a language myth—a fallacious concept of language—that has been promulgated down through the ages. Thus a logical place to begin an account of Harris' views would be with his book, *The Language Myth.* He opens that book by invoking Francis Bacon's prudent words about the ways in which words themselves can lead to misunderstanding, his *idola fori* ('idols of the market'[2]) from chapters LIX and LX of Book I of the *Novum Organum.* The troublesome idols of the market are:

> idols formed by the reciprocal intercourse and society of man with man, from the commerce and association of men with each other; for men converse by means of language, but words are formed at the will of the generality, and there arises from bad and unapt formation of words a wonderful obstruction to the mind. Nor can the definitions and explanations with which learned men are wont to guard and protect themselves in some instances afford a complete remedy, words still manifestly force the understanding, throw everything into confusion, and lead mankind into vain and innumerable controversies and fallacies. (Bacon quoted in Harris, 1981, p. 1)

Concurring with Bacon, Harris says that '... attempts to understand language seem to be at the mercy of words, but words are designed primarily for purposes other than that.' (Harris, 1981, p. 1). This particular statement of Harris' says two notable things: one queries the reliability of language to ex-

[2]Harris uses the phrase *idols of the market*, his translation of Bacon's Latin phrase, *idola fori*; another very common variant translation is *idols of the market place.*

plain language in some infallible way, an application of Bacon's counsel to linguistic investigation; the other (that language is not designed for understanding language) provides a first clue to Harris' concept of language. I will leave the second point for the moment and return to it later; but it is worth noting because these kinds of clues will accumulate to eventually render a picture of Harris' views. Concerning the first point, Harris says that,

> ...if one's purpose is inquiry into language, the question of the reliability of words presses for consideration at the very outset. Inquiry proceeds by way of words, for it cannot proceed otherwise.... But we have no prior guarantee that language used in the service of such a science [i.e. linguistics] will itself be free from the risks that Bacon alludes to. If that is right, then inquiry into language must be doubly hazardous. Not only will the object of inquiry be plentifully supplied with sources of potential misunderstanding, but the instrument of inquiry as well. (Harris, 1981, p. 2)[3]

Harris stresses that, '...the fallibility of man's linguistic equipment has at one time or another been blamed for just about everything, from belief in a Divinity to the perpetuation of sex discrimination' (Harris, 1981, p. 14). At various times, there have been efforts to conceive of better alternative languages, either by amending existing languages (e.g. by careful definition of terms or 'by providing English with unisex pronouns') or by constructing entirely new alternative 'ideal' languages, such as Leibniz' 'calculus universalis', Carnap's 'physical thing-language' (Hanfling, ed., 1981, pp. 120ff), or Esperanto, designed to be unconnected with national or racial boundries, and thereby prejudices, and used as a universal auxiliary language. Thus the unreliability of language has been, particularly for scientific purposes, of great concern. Indeed, the unreliability of language to accomplish the things that it

[3]I might note in passing that this Baconian cautioning of Harris' to linguists sounds interestingly like a statement of Quine's indeterminacy thesis generalised over the whole of language, not just meaning.

is called upon to do in science and philosophy has been a major preoccupation of thinkers for a very long time—as Harris says, 'The record does not exactly bear witness to overwhelming confidence in language' (Harris, 1981, p. 15).

Harris points out that Bacon's idols of the market have two forms:

> ... they are either names of things which do not exist, to which nothing in reality corresponds, or they are names of things which exist but yet confused and ill defined and hastily and irregularly derived from realities, which springs out of a faulty and unskilful abstraction (Bacon quoted in Sidney Warhaft, ed., 1965, p. 342)

And he gives examples of each kind. The example of the first kind involves the word *language* and its dual use in English. Harris gives two examples of the second kind, one also involving the term *language*, and another, by far the graver of the two, and the one which the rest of the book concentrates on and elaborates, involves what he calls 'the language myth'.

To illustrate an idol of the market of Bacon's first kind that Harris believes linguists ought to heed (and one that he believes linguists have generally succumbed to), Harris asserts that the word *language* is first and foremost a common English word rather than a technical term of science; he says,

> The word *language* is a layman's word. It is a word formed, as Bacon puts it, at the will of the generality. Anyone who takes it as mapping out a certain field of inquiry, or at least as providing a starting point, would do well to ask himself exactly what that commits him to. (Harris, 1981, p. 3)

There are at least two uses of the word *language* that create fertile ground for ambiguity in metalinguistic discussions. In one use, *language* can be pluralised and can be preceeded by both the definite and indefinite articles. This use talks about some language or other—*a language*, some particular language—*the language*, or some collection of languages—*languages*. The sorts of things

in question are normally referred to by names like French, English, Tzeltal, etc. This is straight-forward usage (although systematically discerning in non-arbitrary ways, for example, English from non-English is not easy). The other use involves something much more general in conception. What is the 'something more general'? Harris concedes that,

> ...language is, undeniably, a type of activity; but not just a type of activity in the same way as sport [i.e. as a vague collectivity of sports]. Language also exists in the individual as a form of neurophysiological programming, associated with the control of certain specific motor activities and with certain centres in the brain. Humans engage in language as a type of activity just as they engage in sport as a type of activity. But sport is in no sense a human faculty, as language is. (Harris, 1981, p. 4)

To make more precise the difference between these two uses and the misunderstanding that can occur (and has, in Harris' opinion) he considers the expression *linguistic knowledge*. In the sense of 'knowing a language or languages', the opposite would be 'linguistic ignorance': one knows a language or doesn't and that kind of linguistic knowledge admits of degrees. It makes perfect sense to ask a question like 'How good is his knowledge of English?' This is because, '...we are usually asking about a degree of practical expertise in speaking or writing or reading or comprehending; or perhaps less usually, about the amount and quality of factual or historical information he knows about the English language' (Harris, 1981, p. 4). But the opposite of linguistic knowledge, where language (here in its adjectival form) has the sense of 'a faculty' or 'general capacity', i.e. in the sense of 'knowledge of language', if it makes sense at all, would not be 'ignorance' but 'deficiency'. Harris notes that this contrast indicates one reason why the word *language* in the sense of 'a general capacity' is not sensibly thought of as a vague term for some collectivity of languages in the same way that sport is a vague general term for a

collectivity of sports. He says that, 'The notion "deficiency of language" has its clearest application in the cases of those individuals in whom, for one reason or another, normal linguistic development fails to take place.... That is not, however, to imply that deficiency of language is a clinically well defined condition' (Harris, 1981, p. 4). Harris cites the celebrated cases the so-called 'wild boy of Aveyron' and Genie as well-documented cases of language deficiency[4] and clearly not linguistic ignorance; he says,

> An individual in the state in which Victor [the wild boy] was found when first captured is not someone who happens to be extremely ignorant of his native language. He is languageless. Being languageless is not a zero degree of mastery of one's native language, any more than being a bachelor is a zero degree of being married. (Harris, 1981, p. 6)

So this dual usage, '...sponsors the confused notion that language is knowable' (Harris, 1981, p. 6). Harris claims that the root of this misunderstanding involves the fact that the term linguistic in the expression *linguistic knowledge* is neutral with respect to the two uses of the noun *language*, giving the impression that *linguistic knowledge* obviously has two interpretations. It's clear what would be meant by *linguistic knowledge* in the sense of 'knowledge of languages or the language or a language', but it is difficult to make sense of the expression *linguistic knowledge* in the sense of 'knowledge of language'. Harris observes, ' "Does he know language?", or "How much language does he know?" are questions which, to say the least, sound very odd indeed. And yet the expression *linguistic knowledge* may tempt us to treat language itself as an object of knowledge, on par with languages' (Harris, 1981, p. 6–7). Thus, underlining this confusion, Harris points out that '...if we say, as Bacon does [in the above quotation], that "men converse by means of language", it is perhaps not obvious that we have said anything different from "men converse by

[4]For the interesting stories of these two cases, see: Lane, 1976, and Fromkin, et al., 1974.

means of languages" (Harris, 1981, p. 7). The distinction between *language* as ' a language' or 'the language' and *language* as a faculty is blurred.

I suspect that Harris would have to agree that the questions 'Does he know language?' and 'How much language does he know?' would indeed make clear sense on an alternative, albeit highly odd, use of the word know: i.e. as 'have' or 'possess', as in 'having a capacity' or 'possessing a partial capacity'. Consider the case of Genie, for example. When she was first hospitalised, she was extremely linguistically deficient; but after a great deal of work, for a time, she developed some capacity for verbal communication, although still severely deficient with respect to normal linguistic development. It would have made sense initially to query whether she had any linguistic capacity at all in the face of her continued initial verbal silence, to ask, 'Does she know language?' meaning 'Does she have linguistic capacity or is she totally deficient?'; and the question, 'How much language does she know?' meaning 'To what extent has she overcome her initial linguistic deficiency?', would not be nonsensical either. However, Harris' point is that languages are potential objects of knowledge (in the usual sense of that word) but language is not an object known (in that usual sense) but something, a faculty, possessed or had. The mistake that modern linguists have made, in Harris' view, is to nonsensically treat language as an object of knowledge. This is, I take it, not to say that the capacity to know languages—part of what language is—can not be the object of an inquiry: Harris clearly concedes that those kinds of inquiries—e.g. inquiries into the neurophysiological correlates of the human faculty of language or inquiry into language deficit—exist and are sensible and worthwhile. Although, Harris does note that the expression does not seem to have a counterpart to similar expressions like *knowledge of biology* or *knowledge*

of physics, meaning 'knowledge about...'. Nor is it to say (although Harris might not be so charitable here) that linguists, such as Chomsky, who use the expression *knowledge of language* would not make more sense by using different locutions to describe their work; I will return to this issue in the next chapter.

Harris notes a second respect in which the word *language* poses an even more serious problem leading to misunderstanding, one of the second Baconian varieties of idols of the market. This is when we take a term as conflating,

> ...under a single designation things which are distinct in reality. The harm which may thus be caused to the understanding is clearly this: that we may be led to believe, by reason of the single designation, in an underlying unity present in what is in fact a collection of merely associated but disparate things. (Harris, 1981, p. 8)

Harris reminds us of the great diversity of practices that constitute normal linguistic behaviour. He continues,

> An individual is not automatically cut off from linguistic contact with others because one form of language is denied to him. Loss of speech does not deprive the dumb of language, nor loss of sight the blind. Language is too diverse to be thought of as any single set of accomplishments. Equally, it seems that language fulfils a multiplicity of functions. It provides a means of exercising control over one's environment, of exchanging information, of influencing the behaviour of others, of adopting certain public roles, of establishing interpersonal contacts, of expressing one's own individuality, of exercising the imagination, of reasoning, and of maintaining social cohesion. No one seriously disputes the multifarious nature of mankind's linguistic activities. (Harris, 1981, p. 8)

Harris observes that taking the unity of this diversity of linguistic behaviour as designated by the single word *language* too far has led many modern linguists wrongly to assume, for example, that there is a monolithic '...piece of biological equipment from which there somehow flowed the whole range of

diverse behaviour acknowledged as linguistic' (Harris, 1981, p. 8). He also notes that while many linguists acknowledge this diversity of language, they select, for one reason or another, a certain aspect of language, '... as if nothing else mattered in the analysis of language apart from contructing an account of truth-telling, or an account of syntax' (Harris, 1981, p. 8–9). Harris is pointing out here that by conceiving of the entire diversity of language in these monolithic ways—i.e. treating the source of this diversity as singular, whether it be some part of the brain or some aspect of language, e.g. syntax, that is assumed to be somehow fundamental—huge dimensions of linguistic communicative behaviour are neglected, avoided, or relegated to virtual insignificance, with academic respectibility. (This is another clue to Harris' conception of language and its investigation: language is diverse in its functioning and complex in its interaction with other means of communication.)

Harris' moral in his discussions of the problems with modern linguists' use of the term *language* is that their unfortunate lack of regard for the dangers of Bacon's idols of the market has led them astray. By not heeding Bacon's cautions, metalinguistic discussions are rife with muddles. The moral could perhaps be summed up in a statement parallel, *mutatus mutandis*, to one that Wittgenstein made in the *Philosophical Investigations*: linguistics ought to battle against the bewitchment of our intelligence by means of language.[5]

The other *idola fori* of the second Baconian sort that Roy Harris discusses at great length is what he calls the 'language myth'. He sees this particular idol as the primary source of the misconception of language that underpins modern linguistics. Throughout his writings, he notes both what the language myth is with its various strands and in its various forms and why it seems

[5]Wittgenstein's statement was: 'Philosophy is a battle against the bewitchment of language.' (Wittgenstein, 1959, §109)

wrong to him; in addition, he traces the various historical forces (cultural, social, and political) that have operated to bring the language myth to the status of current orthodoxy. Harris says,

> The language myth in its modern form is a cultural product of post-Renaissance Europe. It reflects the political psychology of nationalism, and an educational system devoted to standardising the linguistic behaviour of its pupils. But its roots go much further back in the Western tradition. (Harris, 1981, p. 9)

Harris claims that the language myth consists of two closely related though logically independent fallacies about the function and mechanism of language. These he terms the 'telementational fallacy', a doctrine about the function of language, and the 'determinacy fallacy' (or alternatively, the 'fixed-code fallacy'), a doctrine about the mechanisms of language.

The telementational fallacy consists in asserting that the function of language is, in essence, to transfer thoughts or ideas from the mind of one language user to the mind of another. As Harris says, 'Speech is a form of telementation' (Harris, 1981, p. 9). He traces this view of the function of language back from current linguistics through Saussure, John Locke, and the modistic grammarians of medieval Europe to Aristotle.[6] In *De Interpretatione* (16a1–7), Aristotle lays down his representational conception of mind and language. He says that mental experiences are representations or symbols of phenomena in the world and are identical for all of humanity, e.g. a given object will invoke the same mental experience in anyone who perceives it. Spoken words are representations of the corresponding mental experiences and written words are graphic representations of the spoken words. This view of the function of

[6] Forms of the doctrine arguably go back at least to Plato and, perhaps, even the pre-Socratics. Indeed, Aristotle must have been in no small way influenced by Plato on this issue.

language is based on what Harris terms a 'surrogational concept of language' (Harris, 1980, pp. 33ff). Briefly, as mentioned above, surrogationalism conceives of language as bearing a 'stand-for' relation to other things—in the two most common forms, either thoughts, what Harris calls the 'psychocentric' version (Harris, 1980, p. 44), or phenomena in the external world, 'reocentric surrogationalism' (Harris, 1980, p. 44). Of all of the concepts of language that developed in the ancient world (and Harris notes at least four distinct ones), surrogationalism has both been the most pernicious to a sensible understanding of language and has had the greatest endurance. Surrogationalist landmarks abound throughout the history of Western linguistic thought.

It shows up in Northern Europe during the late thirteenth century with Thomas of Erfurt and the 'speculative grammarians' (also called the *modistae*). For Thomas and the modistic grammarians, language was a, '...mirror (*speculum*) of the world as reflected in the human mind.... The basic task of the grammarian, therefore, is to show how...language systematically reflects reality' (Harris and Taylor, 1989, p. 76).

Surrogationalism is exemplified, as well, in the *General and Rational Grammar* of the Port-Royal Abbey in late seventeenth century France. Influenced by Cartesian philosophy, the writers of the 'Port-Royal *Grammar*' (as it is commonly referred to) believed that the function of language was the communication of thoughts and that, '...the structure of thought determines the structure of verbal expression' (Harris and Taylor, 1989, p. 98); and, hence, that the investigation of language will yield knowledge about the mind. (Port Royal, of course, is very much a part of the Cartesian rationalist tradition that Chomsky appeals to in support of his project of generative grammar.)

The surrogationalist doctrine appears also in the philosophy of the late seventeenth century British empiricist philosopher, John Locke. Locke's main concern about language, discussed in his *Essay Concerning Human Understanding*, related to his epistemology. He believed that it was only through language that knowledge could be transmitted. 'The *Essay* argues that all human knowledge consists of ideas. The human mind is pictured as a repository of ideas, and thinking as the mental manipulation of stored ideas. Verbal communication, in turn, consists in telementation: that is, in the conveyance of ideas from the mind of one individual to that of another' (Harris and Taylor, 1989, p. 110). Locke's concern was with how this telementational process could go awry, thereby confounding knowledge and its discussion and transmission.

And Harris stresses that the telementational model of speech communication thrives in the present century in the work of Saussure and the work of Chomsky (in non-surrogationalist[7] and surrogationalist forms, respectively); and currently has the status of orthodoxy. And although all of these linguistic thinkers either used it to support other theses or used other theses to support it, the telementational doctrine is essentially the same and constitutes a lineage that has survived for over two millenia.

The mechanism by which telementation is achieved is provided by the determinacy fallacy. Since it is assumed that we share the same ideas, all that is required is a fixed set of correspondences between verbal symbols and the ideas. Harris says, in this view,

[7]Harris (1988, pp. 11ff) claims that Saussure's version of the telementational doctrine is anti-surrogationalist because Saussure argues against the view that a linguistic sign entails a relationship between '...a thing and a name' (Saussure, 1916, p. 98). It seems quite arbitrary to me to see Saussure's account of the concept/sound-image association within linguistic signs between sound patterns and concepts (both psychological things) as anything other than a surrogationalist view (see Saussure, 1916, pp. 98ff).

> A language community is a group of individuals who have come to use the same words to express the same ideas, supplied by Nature, and to combine those words in the same ways into sentences for the purpose of connected discourse. (Harris, 1981, p. 10)

The fixed sets of verbal symbols also have two kinds of invariance associated with them: their form, the vocal or written arrangement of their elements, and their meaning, that aspect of the verbal symbol that enables identification of the thought conveyed.

So linguistic communication between two individuals, A and B say, consists of A determining that he wishes to convey some thought to B, A somehow or other (the exact mechanism remains a mystery to this day!) conjuring up the expression in the language that A and B share that corresponds to the thought he wishes to convey, encoding it into the correct oral (or written) form, uttering it (or writing it), B then hearing the utterance (or seeing it written) gets his decoding mechanisms to swing into gear, taking the form of the utterance and matching its concomitant meaning to the corresponding idea(s), thus grasping A's thought. Various linguistic theories may provide differing accounts of form, meaning, and 'how much of human communication this system... covers' (Harris, 1981, p. 10), but this is the underlying scheme of how linguistic communication is supposed to work. It is essentially the same scheme found in Aristotle, Thomas of Erfurt and the Modistae, the Port Royal grammarians, John Locke, Saussure's *circuit de la parole*, and Chomsky.

Now Harris comments that this basic description of the language myth and its account of linguistic communication,

> ... sounds suspiciously like an analysis dictated by common sense; and sounding like common sense is one of the powerful sources of appeal of the language myth. (Harris, 1981, pp. 10–11)

He cites several complex reasons for this, having to do with the language with which we learn to talk about language; that is, the language myth has very strong *learned* metalinguistic support. That the language myth sounds like common sense, Harris believes is not surprising since he takes common sense to be both learned and culture-relative. First, Harris notes the interesting study of English metalinguistic expressions by M. J. Reddy, 'The Conduit Metaphor—A Case of Frame Conflict in Our Language About Language' (Reddy, 1979). There, Reddy lists a large number of English expressions used to talk about language that assume that 'language functions like a conduit', through which thoughts are transmitted. Language users 'insert' thoughts into words, words thus 'contain' thoughts, and thoughts are 'extracted' from the words used to 'convey' them. Reddy describes this conduit metaphor as, 'the preferred framework for conceptualising communication'. And Harris notes that this 'preferred framework' is not confined only to English; it is, not surprisingly, widespread throughout the languages of Europe. Not surprising, since,

> ... a second and no less influential source of metalinguistic support for the language myth comes from those two great instruments of European education, the grammar book and the dictionary. An educational system based upon grammar books and dictionaries has already succeeded in institutionalising the fixed-code fallacy. The authority of the grammarian and the lexicographer would simply have no basis if it were not assumed that rules and meanings were not determinate. (Harris, 1981, p. 12).

The grammar books and dictionaries of post-Renaissance Europe, and the kinds of educational systems based on them, were the culmination of developments in society, politics, and linguistic thought stemming right back to ancient Greece. The various conceptions of language that developed in tandem with European historical development is a fascinating story; and Harris

discusses it in great depth, particularly in his book, *The Language Makers* (1980). In combination, *The Language Makers* and *The Language Myth* plausibly show how that development, projecting from antiquity, has resulted in the widespread adoption of the conception of language that he takes issue with, the language myth.

3.2.2 Projections From Antiquity

He begins his discussion with the rise of the *polis* in fifth century B.C. Greece. With the growth of democratic city-states, in which all male citizens were obliged to participate in public life, broad education and effective verbal facility became necessary, on a scale never before seen, to successfully manage civil service, legal administration, political debate, and all of the other exigencies of life in the great democratic polis. Thus a great demand rapidly arose for broader and more effective education of citizens, especially in linguistic skills; and the Sophists, in particular, filled that pedagogical role. The basis of the Sophists' system of education was effective public speaking and debating skills, since, '...there was a sudden focus of interest on language, related to the new importance which the spoken word had acquired in public life' (Harris, 1980, p. 116). It was during this time that the 'art of rhetoric' was born. Thus, since the Sophists, and presumably their students, saw language as primarily a means of persuasion and achieving agreements, the concept of language that they espoused was clearly 'instrumentalist': the view of language in which, '...words are envisaged as instruments for accomplishing human communicational objectives, rather than standing for things or ideas [as in surrogationalism]. Language-using is seen as analogous to tool-using, rather than analogous to labelling' (Harris, 1980, p. 80). It was during this time, as well,

that Aristotle was systematising the logic of valid inference. Aristotle's views on language were, as mentioned above, surrogationalist, and, together with those views, he saw language, via deductive logic, as a means of discovering truth. Thus Aristotle and the logicians of his time disparaged the widespread rise of Sophist-style rhetoric because they failed to emphasise, in their teaching of language use, the analysis of language into the word categories, modes of combination, etc. that was characteristic of the Aristotelian conception of language, and, more importantly, because they failed to promote the distinction between deductively valid argument and merely persuasive argument. The Sophists, on the other hand, were not terribly concerned about truth and were quite content if fallacious reasoning was nevertheless persuasive. Some Sophists, Gorgias for example, went so far as to hold the view that language can tell us nothing about truth and reality, in any case, because he saw no convincing way of showing how language can stand for reality. As Harris says,

> Scepticism of this order clearly presents a challenge to its critics [viz. surrogationalists]. Those who claim that truth is to be distinguished from mere opinion are required to explain what the connexion is between words and reality which can guarantee some assertions as truths, independently of what anyone may think. (Harris, 1980, pp. 117–8)

Thus there was a rivalry between logicians and rhetoricians, between the growing traditions of logic and rhetoric. The instrumentalism of the rhetoricians, in which language was merely a tool of persuasion regardless of truth, vied for acknowledgement as the 'supreme art of man' (Harris, 1980, p. 118) against the surrogationalism of the logicians, in which words stood either directly for things or for things at one remove as mental representations, and provided a solid basis for the discovery of truth. Harris notes that this kind of rivalry could only happen in a socio-political context because, '...it only makes sense in the first place in a political and social context in which, literally, verbal

persuasion does decide the conduct of human affairs' (Harris, 1980, p. 118). What is going on here is that human beings, within a particular social context, are holding certain views, in this case about the nature of language, and are attempting to maintain them against dissenting views. For example, if the logicians didn't have the surrogational doctrine to lean on and the view that reality is a certain way and not any other way, they would not have grounds for the definition of valid inference (what could insure that any premise is true?); '...for without that distinction [between valid and invalid argument], logic had no justification for claiming independence from rhetoric' (Harris, 1980, p. 118), since all statements would be merely opinion.

In this conflict about the nature of language, Harris claims that grammar initially played no role. It was certainly a part of the growing spurt of education. For example, Aristotle discusses it at length, and even the Sophists made major contributions to its development (Kretzmann, 1967, p. 359); but with respect to the competing linguistic concepts of instrumentalism and surrogationalism, it had a role of neutrality—indeed, it had a subordinating role for each. Harris underlines the fact that grammar did not '...assert its independence against both rhetoric and logic until a later stage in the evolution of Greek ethnography' (Harris, 1980, p. 118). The rise to prominence of grammar came during Hellenistic times and the Alexandrine empire. Harris observes,

> Its [i.e. grammar's] emergence as a separate subject reflects the profound difference in linguistic orientation between the Greek world of the small city-state and the Greek world of the empire. (Harris, 1980, p. 118)

With the growth of Alexander's empire came the need for the administration of lands with large numbers of non-Greek speaking people. Indeed, the administrative needs were so great, Harris says, that a new secretarial class emerged which had to be taught to both read and write: '...their writing did not need

to achieve effectiveness in the rhetorician's sense, nor dialectic skill; since for the most part they would only be writing what others dictated. It simply needed to achieve a certain standard of correctness' (Harris, 1980, p. 119). Grammar, thus, initially had a more lowly status than either rhetoric or logic. Harris notes that,

> In order to stake any claim to academic prestige at all, he [the grammarian] had to base his teaching on a specialised knowledge of the language of the ancient authors. The long-lived association between literary studies and grammar was no fortuitous product of Alexandrine scholarship under the Ptolemies, but a reflection of the fact that the grammarian, arriving late on the scene, had no other field of expertise to turn to which was not already marked out as the province of the rhetorician or the logician. . . . By the same token, contractualism became his professional creed, because it denied the rhetorician and the logician any right to tell the grammarian what correct usage 'ought' to be. (Harris, 1980, p. 119)

The 'contractualism' mentioned by Harris in the above quotation constitutes a third main concept of language to issue from antiquity. Contractualism (a term coined by Harris) is the view that language is, '. . . the manifestation of a tacit collective understanding between members of a community as to how a certain range of social affairs shall be conducted. It is essentially a form of social contract' (Harris, 1980, p. 102). Thus the Alexandrine grammarians conceived of their role as standardising and coordinating linguistic usage using the ancient authors as models. Thus grammar came to be associated with what Harris calls the 'orthological dogma' (Harris, 1980, p. 7, fn. 3), the view, notorious to modern *scientific* linguists, who see grammar as being descriptive and explanatory, that grammar is prescriptive (i.e. grammar, or rather the grammarian, legislates right and wrong usage).

The pedagogically-oriented grammars of that era and on into subsequent Roman era—that is, the grammar books, and the grammatical principles con-

tained in them, of Dionysius Thrax, Varro, Donatus, Priscian, and Quintilian—provided the basic model of grammatical analysis for the Western tradition, down to this day. With the expansion of the Roman empire over what was to become Europe, the spread of Latin, as essentially dictated in the work of these grammarians, had a profound effect on subsequent linguistic geography of Europe. As Harris and Talbot J. Taylor put it,

> This was linguistic colonisation on a scale quite unprecedented in the history of Europe, and it left a lasting mark on the linguistic mentality of European civilisation. Down to the Renaissance and beyond, all thinking about language was to remain dominated by the unique status achieved by this ubiquitous, versatile, all-purpose language, which counted among its monuments the speeches of Cicero, the poetry of Virgil, Jerome's translation of the bible, and the legal code of Justinian. It was a language which eventually penetrated every level of society and united the largest single linguistic community Europe was ever to see in 3,000 years of continuous social and political development. (Harris and Taylor, 1989, p. xiii)

After the fall of Rome, during the so-called 'Dark Ages', the Latin that had been the tongue of Everyman virtually throughout Europe, remained the language of church, administration, and higher education: by the middle ages, the three language-related subjects of the Graeco-Roman world—grammar, rhetoric, and logic—made up the so-called *trivium* in the curriculum of medieval universities. But the vernacular Latins of the various regions of Europe transmuted into what eventually came to be called the Romance languages. Harris sees the setting of that trivium as evidence of the profound effect that Graeco-Roman linguistic thought had had, as well as a portent its endurance. He says,

> ... what has begun as a differentiation of responses to the role of language [instrumentalism, surrogationalism, and contractualism], prompted by a series of historically interconnected social and political situations

> in antiquity, became finally institutionalised as the permanent structure of a system of higher education. It put the intellectual development of Europe into a straitjacket from which the concept of language has yet to struggle free. (Harris, 1980, p. 126)

With the differentiation of the various regions that had constituted the Roman empire into distinct nations during the Renaissance and their respective vernaculars into national languages, Harris says that the, '...situation arose in which membership in a particular community of language-users could be seen not only as important in itself, but even more important than oratorical or logical expertise in language-using' (Harris, 1980, p. 118). Thus having a grammar of the national language, based upon the model provided by antiquity, became a point of prestige; their effect was to '...stabilise the vernaculars as literary media' (Harris, 1980, p. 130) and thus provide a powerful form of national identity. This movement involved a resurgence of the instrumentalist concept of language. Harris observes that,

> An instrumentalist approach to language was naturally suited to the linguistic self-consciousness of nascent nationalism. Unlike surrogationalism, which tends to support the view that the language-user has no option but to accept an established connexion between words and their surrogates, instrumentalism is favourable to the opposite view: that languages are open to manipulation and modification to suit changing needs.... In short, instrumentalism became pivotal to Renaissance philosophy of language, which was itself a product of a new social evaluation of the role of Latin and of learning, and of the new political context provided by Renaissance nationalism. (Harris, 1980, pp. 129–30)

Harris believes that the advent of the monolingual dictionary in the social and political context of Renaissance nationalism had a momentously profound effect on the subsequent conceptualisation of language in the Western tradition. It, and the grammar book, became, '...the visible symbol of a nation's linguistic independence from Latin' (Harris, 1980, p. 130); Harris remarks that,

> ...it was inevitable that the monolingual dictionary should not only provide the lexical inventory of the language, but at the same time set the standard, from which any departure invited a query, if not a charge of idiosyncrasy, or ignorance, or error' (Harris, 1980, p. 131)

Thus the monolingual dictionary had the effect of deepening the rigid authoritarian nature of linguistic thinking that had been part and parcel of the grammarian's contractualism, which was retained to provide authority for the instrumental linguistic ends of nationalist swell; it added a whole new authoritarian dimension to the already firm 'orthological dogma' of linguistic thinking. Also, the monolingual dictionary, based as it was on the principle of intra-lingual translation, together with the grammar book, provided the strong foundation for the fixed-code fallacy: these two institutions of European national identity and education portrayed languages as more or less closed and self-contained finite systems which were fixed and invariant and which allowed each member of a particular (national) language community to know what the others were talking about.

Harris' discussion points out that the degree of systematicity had been an explicit linguistic issue at least since the time of Varro (116–27 B.C). To Varro, '...the most indisputable and conspicuous general fact about language is that it is only partially and incompletely systematic' (Harris and Taylor, 1989, pp. 47–8). 'For Varro', Harris and Taylor say, 'the fact that it is possible for grammarians to formulate rules that work (i.e. are pedagogically sound) already shows that certain principles of regularity are operative in language' (Harris and Taylor, 1989, pp. 54–5). Although Varro recognised that language is not completely regular or systematic, he emphasised its systematicity and believed that that systematicity was the fundamental basis of language; and Varro's emphasis was to have a lasting effect promoting the view that

languages are determinate systems. Varro is, hence, one of the first classical precursors of Chomsky in his insistence that genuine linguistic phenomena are completely amenable to systematic analysis (see, for example, pp. 30–1 for mention of Chomsky's insistence that 'core language' is the only genuine object of linguistic inquiry).

In his discussion of the far reaching effects that these two developments—the grammar book and the monolingual dictionary—have had on Western concepts of language, Harris emphasises that the origins of many of the fundamental assumptions supporting the language myth are found in these two phenomena and have virtually been forgotten. The grammar book and the monolingual dictionary present languages as closed fixed systems, ignoring the idiosyncrasies of communicational purposes in practice; they insidiously encourage the view that a language is a static object rather than a contextually-based creative activity; they provide a foundation for a type/token between 'the language' and utterance instances of the language; they establish the discrete conceptual separation of grammar and lexicon, thus, among other effects, contriving the further distinction between grammaticality and meaningfulness; and much besides.

Harris points out that this last mentioned consequence—the distinction between grammaticality and meaningfulness—was to have a profound twist in the twentieth century with advent of mathematical logic. The determinate systematicity that Varro and the grammarians of the ancient Graeco-Roman world promoted survived through the authority of their pedagogical grammars. With the appearance of 'linguistic science' in the twentieth century, particularly, the generative linguistics of Noam Chomsky, Harris observes that language was treated, '... as if it were, on the formal plane, a closed logistic

system of the type devised for purposes of mathematical logic, within which the "well-formedness" of a formula can be "proved" ' (Harris, 1981, p. 76) and only certain well-formed formulas are provable as theorems. Here, grammaticality is akin to syntactic well-formedness and grammatical sentences are akin to theorems on Chomsky's conception of language as an abstract mechanical system.

Harris believes that this orthological dogma was profoundly strengthened by the fact that grammars and dictionaries were *written*—particularly after Gutenberg's invention of printing with moveable cast type. They were not only enduring in a way that speech can never be, but they were also turned out in innumerable identical copies, which psychologically underscored their authority as belonging to 'the language'; rather than the only previous form of handwritten manuscripts which were individually unique, different, and the obvious communication of human being to human being, the printed book had the distinct psychological flavour of communication coming from an impersonal National Language Authority down to human members of the language community. Indeed, many of these nations set up authoritative organisations, such as the Académie Française and the Accademia della Crusca, to safeguard their languages and to produce authoritative printed versions of grammars and dictionaries.

3.2.3 Supporting the Myth—Scriptism and Writing

This represents one dimension of an important phenomenon in literate societies that Harris points out and calls 'scriptism': 'the assumption that writing is a more ideal form of linguistic representation than speech' (Harris, 1980, p. 6). He notes that the prestige accorded to literacy in literate societies to-

day most likely has its social basis in the fact that for most of the history of human thought, '... writing has been the prerogative of relatively small and relatively privileged classes of people' (Harris, 1980, p. 6). There is wide agreement among linguists and historians of language that writing is a very recent invention in contrast to communication by speech; or, as Harris puts it, '*Homo loquens*' existed for many millenia before '*Homo scribens*' (Harris, 1980, p. 14). He asserts,

> ... the emergence of *Homo scribens* makes a radical and henceforward irreversible difference to what a language is, irrespective of the medium employed. Just as the invention of firearms automatically altered the status of bows and arrows by introducing a new concept of what a weapon was, so the invention of writing, by expanding man's communicational universe, automatically introduced a new concept of a language. (Harris, 1980, pp. 14–5)

Harris sees the advent of writing as one of the most profound cultural developments to influence concepts of language in Western history; in fact, he finds it hard to exaggerate the deep effects, largely unappreciated by linguistic theorists, that the invention of writing has had on linguistic thought. Harris devotes a significant amount of his work to examining the relationships between speech and writing, the nature and origin of writing, and the consequences that the invention of writing has had for both linguistic and non-linguistic communication, as well as linguistic investigation.

Harris observes that the question of the origin of writing at first appears to admit simple answers like: if the oldest known traces of writing are dated back to, say, Mesopotamia or neolithic cave dwellings, then writing obviously originated with the peoples who inhabited those ancient settings. The question of the origin of writing is a question for archeologists and philologists to solve because they are the investigators of the material remains of times past, and it

can only be there that evidence of the first writing will be found. The origin of writing, on this view, has to do with what the first scripts were, how they were inscribed, who used them, where, and for what purposes. This point of view, Harris believes, is thought to be generally platitudinous. Moreover, writing—*alphabetic* writing—is generally thought to have evolved from some form of primitive pictorial representation, such as prehistoric cave paintings and carvings or Egyptian hieroglyphics. So the history of writing from its ancient pictorial origins to its most highly evolved form today—alphabetic writing—is the history of the evolutionary process of graphic communication: in the beginning, with rough pictures representing the objects they depict, evolving through various stages toward the present situation in which the graphic marks of alphabets represent individual (roughly *phonetic*) speech sounds. It is an evolution from originally *pictographic* representation of what humans wished to communicate to the current pinnacle of *phonographic* representation.

However, while it is true that archeologists and philologists are certainly called upon to investigate the material evidence concerning, '...why, how, what and when the first humans wrote' (Harris, 1986, p. viii)—questions to which the answers will almost certainly remain uncertain, Harris observes the following:

> But the origin of writing is a different question, and it does not fall either to the archeologist or to the philologist to answer it. As with many other problems concerning origins, the experts on ancient civilisations have not been backward in providing theories. But before evidence from history can be brought to bear on the question, there has to be some assurance that it actually is evidence. If the archeologist and the philologist are to distinguish between what is relevant and what is not, a critical examination is required of the question being asked and the way it should be posed. Neglect of this preliminary critical examination has been mainly responsible for the widespread acceptance of historical 'answers' which are not answers at all. (Harris, 1986, p. viii)

Harris contends that there are, in fact, not one but two questions here: one having to do with the origins of writing and the other, logically prior, having to do with what exactly is meant by *writing*. Harris' 'critical examination' of these questions begins with a critical assessment of how they have generally been conceived (or misconceived) as suggested above.

Harris notes that this conventional wisdom on the subject of writing contains, at minimum, the following implicit assumptions (paraphrased from Harris, 1986, p. 2): (*i*) spoken language existed before written language, (*ii*) written messages were originally communicational substitutes for spoken ones, (*iii*) writing began as pictorial representation, (*iv*) the alphabet and 'picture writing' are based on quite different principles, (*v*) alphabetic symbols represent speech sounds, and (*vi*) the alphabetic principle is an evolutionary advancement or improvement over picture writing. All of these assumptions have an ancient heritage—going back at least to Graeco-Roman antiquity discussed above—and have not since really been thought to be problematic.

But, in spite of this ostensibly unproblematic background of assumptions, Harris claims that the origin of writing is still a mystery. That it is still a mystery is due not just to a lack of historical evidence; more importantly and insightfully, according to Harris, the obscurity of the origin of writing is partially due to the ways that linguists have approached the problem—in other words, the assumptions mentioned above may not be as unproblematic as is generally thought. Harris discusses many inter-related reasons why this might be so.

First, recognition of the vast importance of writing in cultures that have inquired about its origins have focused on certain *consequences* of the uses of writing for those cultures—in particular, the view that writing is an augmenta-

tion of a more basic mode of communication, speech. Writing made it possible to keep virtually permanent records of communication that would otherwise have the evanescence of speech. Harris, quoting H.G. Wells puts the point as follows:

> It [writing] puts agreements, laws, commandments on record. It made the growth of states larger than city states possible. The command of a priest or king and his seal could go far beyond his sight and voice and could survive his death. (Harris, 1986, p. 20)

Harris remarks that writing has been exploited by cultures that have developed it to accomplish diverse forms of social, political, economic, religious, educational, legal, and artistic organisation and transmission. And, it is interesting, he notes, that the degree to which a culture has exploited writing—reflected in its general literacy—has been a fairly good indicator of its general prosperity; cultures with low literacy are also the cultures deemed to be impoverished. Indeed, it is not at all misleading to say that a civilisation's uses of writing have generally been a primary measure of its ascendency and progress.

However, there are several points that Harris notes here. One is that the powerful utility, and consequent deep respect, of writing—noted by Harris' term *scriptism*, mentioned above—together with the general bias regarding the relationship between writing (especially alphabetic writing) and speech, has led to certain oversimplifications in which writing is thought of as a durable record of spoken language and speech is thought of as the pronunciation of written language. Harris points out the circularity of this, conceiving of speech in terms of writing and writing in terms of speech. If the distinction between written language and spoken language is to be made—and Harris agrees that it, of course, should be made—then it needs to be made clearly and unambiguously.

This focus on the importance of the consequences of a culture's development of writing as an effective mode of communication has also created fertile ground for the *non sequitur*, hinted at above, to take root: viz. that writing can only be properly viewed as an extension of speech. Writing, Harris contends, can, of course, fruitfully be viewed in this way; but writing, both historically and technically, is an extension of *drawing*, or *graphic art*, generally. Harris draws attention to two obvious clues to this close connexion between writing and drawing. First, etymologically, the English word *write* has had the meaning 'draw' or 'depict'[8]. Ancient Egyptian and Greek, as well, had single words to indifferently mean 'draw' and 'write'. Second, Harris notes that writing has been employed by all manner of inscriptional techniques: drawing, painting, carving, etc.—all techniques of graphic art; and based on the artifacts of most cultures, past and present, this is no surprise. But linguists have, by and large, seen this connexion between writing and graphic art as important only insofar as graphic art was the initial step in an evolutionary process that has led to alphabetic writing and the alphabetic principle (i.e. that the letters of the alphabet represent—however roughly—the individual sounds of speech). However, Harris demonstrates that there is no necessary connexion between writing and speech by pointing out, for example, that concrete poetry is *written* and yet very often, while it can be *read*, it cannot be read *out loud*—it is natural language communication and yet it is independent of speech.

This suggested evolution from pre-writing to pictures to alphabets, as well, in Harris' view, requires elucidation. Linguists have written voluminously on evolutionary accounts of writing; but Harris contests that those accounts have accomplished much. First, he notes, there has been no consensus on the use

[8]This is corroborated in C.T. Onions, ed., *Oxford Dictionary of English Etymology*, Oxford University Press, 1976, p. 1015.

of terminology with which to discuss the points at issue. The lack of a well-defined metalanguage within which to explore the study at hand is problematic for any inquiry. For example, he shows that the word *writing* is defined in different ways by different historians of writing. In Gelb's view, writing is phonographic (Gelb, 1963, pp. 190ff)—writing, for him, begins with syllabaries. Bloomfield defined writing with respect to 'linguistic forms' (Bloomfield, 1933, pp. 282ff)—for him, to count as writing, graphic symbols must represent words, phonemes, etc. Diringer appears to have a similar view to Gelb; he says, 'literally and closely defined, writing is the graphic counterpart to speech, the "fixing" of spoken language into a permanent or semi-permanent form' (Diringer, 1962, p. 13). However, the other terms that Diringer uses to give the definition substance are very different (in conception) from the ones that Gelb uses. The same is true for many of the other technical terms peppering this literature. Harris points out that it is not at all clear whether the supposed 'authorities' are talking about the same thing; they appear not to be. Not only is a clear notion of what writing is in absence, but also the distinction between what is clearly writing and what is pre-writing is blurred. The conceptual leap in the transition from pre-literacy to literacy is left wholly unexplained.

In spite of the difficulties of evolutionary accounts of writing, Harris does agree that there seems to be a concensus on two key points. First, as he puts it, '...there is an important truth in the contention that writing was invented when a certain systematic correlation was established between graphic marks and words' (Harris, 1986, p. 122). The point he makes here is that writing was an *invention*[9]; it was a conceptual leap, made by pre-literate humans,

[9]Gelb seems to be an exception, though; he claims that writing was never invented, but was just a development or improvement of what preceded it. See Gelb, 1963, p. 199.

concerning the possibilities for effective communication.

The other point of general agreement among historians of writing concerns the key role that pictorial representations must have played in the transition from pre-literate communication to literate communication. However, Harris contends that the way that this conjecture is generally used is open to question. As mentioned above, the standard account is as follows: speech existed before writing; the first writing was pictorial, intended to extend the communicational utility of spoken language; from these pictorial scripts developed, by various assorted mechanisms, phonographic scripts (first syllabaries and then alphabets); thus, modern Western civilisations were the inheritors of the most highly advanced form of writing from this evolutionary process—the Roman alphabet, derived from the Phoenicians by way of ancient Greece. The two most commonly postulated mechanisms of transition are the *rebus* and the principle of *phonetic iconicity.*

The rebus uses a pictogram associated with the pronunciation of one word to represent the pronunciation of another word or a part of another word. On this view, the transition from pictorial scripts to non-pictorial phonographic scripts was due, according to Harris, to, '... the phoneticisation implicit in the rebus representation' (Harris, 1986, p. 60). Thus, as Gelb has put it, the rebus principle made possible, '... the expression of any linguistic form by means of symbols with conventional syllabic values' (Gelb, 1963, p. 194).

Those who cite the principle of phonetic iconicity as an explanation of the transition from pictorial to non-pictorial writing claim that the original pictograms were attempted representations of the articulatory organs of speech (i.e. the mouth, tongue, and teeth) in roughly the positions they are in when the relevant sound or word is pronounced. The claim is that, although other

sorts of pictograms existed and developed along different lines, these phonetically iconic pictograms evolved into syllabic and then alphabetic letters. This is the supposed path from pictures to alphabets.

However, while there is almost unanimous agreement that pictorial inscriptions predate any kind of what we take to be non-pictorial writing, Harris makes clear that it is a leap of faith that (a) these pictorial inscriptions had anything to do with language—as opposed to, say, religious emblematicity, (b) they have any *evolutionary* relationship to phonographic writing, and (c) even if there is some evolutionary connexion between pictures and non-pictorial scripts, this is not a matter of necessity: it merely creates the illusion of some kind of pictorial priority in the development of writing. Harris gives this observation substance by considering what is involved in graphic communication. He takes the example of recording the moves in a chess game as a communicational task and shows that, so long as certain necessary conditions are met, any number of possible graphic means are equally adequate. The conditions that Harris claims are necessary are what he calls the 'matching condition'—in the present case, graphically capturing all moves in the game, and the 'condition of perspicuity'—insuring that the graphic rendering is unambiguous (Harris, 1986, pp. 128f). Thus, a sequence of photographs, a sequence of diagrams (like the ones found in books on chess), or a sequence of abstract graphic symbols (like the so-called 'algebraic notation', also found in chess books) will, if each satisfies the necessary conditions, equally fulfill the communicational task in a *graphic* medium.

What this shows is that there is no priority to iconic images in the development of writing. As Harris puts it, 'The supposed pictorial priority [underlying the evolutionary picture theory of the origin of writing] is quite illusory. Ev-

erything depends on what the signs are intended to communicate' (Harris, 1986, p. 129). He says that if we draw a distinction between 'structurally necessary' and 'structurally superimposed' features of graphic signs (Harris, 1986, p. 130), then we can see that in the three examples of graphic signs mentioned above (viz. photographs, diagrams, and notations), the structurally necessary features are identical but the structurally superimposed features are what distinguish each from the others. Indeed, iconicity is just a structurally superimposed feature. So Harris contends that only the structurally necessary features are of primary importance to the communicational purpose of any kind of sign—in the present case, graphic signs; the structurally superimposed features of one form of graphic rendering may provide advantages over another—e.g. ease of understanding or aesthetic properties—but, from the point of view of communication, these features are of secondary importance.

What these observations of Harris', laid out in the preceding paragraphs, point to is, perhaps, the fundamental reason why the problem of the origin of writing has remained, not just unsolved, but shrouded in obscurity: we have been unquestioningly looking at the problem through the distorting lens of a thoroughly literate civilisation. A kind of Heisenberg principle has been operating. From the obvious (and insidious) role that a modern conception of writing has—particularly the confused relationship between writing and speech—Harris suggests that one gets the impression that, all along, those first pre-literate humans, in the process of inventing writing, were groping inexorably toward the International Phonetic Alphabet. The evolutionary accounts, endemic in virtually all of the existing literature on this topic, clearly reflect what Harris has melodramatically termed the 'tyranny of the alphabet' in creating the 'evolutionary fallacy' (Harris, 1986, chaps. 2–3). Harris puts

the final point as follows:

> ...it is a mistake to situate the problem of the origin of writing in the context of the earlier surviving forms of what we would nowadays recognise as scripts, whether alphabetic or non-alphabetic. Both logically and psychologically, the origin of writing poses a different sort of question. It has to do with the communicational universe of pre-literate humanity. (Harris, 1986, p. 27)

Harris contends that since we cannot see into the psyche of pre-literate man, we ought to be very careful that we do not illegitimately import our own notions into our inferences and conjectures about ' the communicational universe of pre-literate humanity'; we do not and very likely cannot know what conception of pronunciation, for example, pre-literate humans had. Hence, Harris asserts that it is question-begging to tie the beginnings of writing to spoken language and particulary alphabets; he says, 'We have no warrant to project back indefinitely into prehistory a conceptualisation of writing which is itself the product of the uses of literacy in a highly sophisticated civilisation' (Harris, 1986, p. 53).

The idea of genius behind the invention of writing, Harris suggests, was that graphic signs could constitute a distinct mode of communication, not necessarily tied to spoken language, but able to use spoken language (and other modes of communication) as structural models—this is quite likely the nature of the relationship between writing and speech (and the development of syllabaries and alphabets): spoken language was a structural model for some forms of graphic communication, providing very useful superimposed features. Harris sums up this view as follows:

> It took, obviously enough, a conceptual revolution in prehistoric times to realise that graphic signs can show what is invisible as clearly as they can show what is visible; that they can capture certain structures of aural or manipulative or kinetic experience just as definitely as certain

> structures of visual experience. But the mere technical transition to recording by means of marks on a more or less flat surface had, *per se*, nothing to do with it. Obviously there is no great conceptual advance involved in scratching stones or impressing clay. What may be less obvious is the inevitability of the fact that every change in perspective from which the independence of writing is viewed brings with it an automatic reevaluation of the boundary between the pictorial and the non-pictorial, together with a reevaluation of the relationship between speech and language. (Harris, 1986, p. 157)

Harris suggests that virtually the whole of the Western linguistic perspective is infused with misconceptions because of the same 'distorting lens of a thoroughly literate civilisation' that provides the muddled view of writing and its relationship to language and communication. He says that it indicates,

> '...the difficulties inherent in an essentially literate society's attempt to conceptualise something it has already forgotten, and which cannot be recalled from its cultural past: what an essentially non-written form of language is like. (Harris, 1980, p. 18)

Thus, according to Harris, this kind of scriptist bias has evidenced itself in many ways throughout the Western grammatical tradition—some ways being more overt than others. Some of the more overt ways are seen in the ancient *literary* basis of Alexandrine grammar, and in the authoritative force exerted in the pronouncements found in dictionaries. But Harris notes some of the less overt, more insidious, ways that Western scriptism has influenced conceptualisations of linguistic communication.

For example, he suggests that the very conception of a language as a system open to analysis *depends* upon the prior conception of language as capable of being reproduced in a non-vocal form; he says,

> ...the systematic analysis of spoken languages depends essentially on their conceptualisation as systems amenable to representation in a medium other than sound. (Harris, 1980, p. 16).

Harris remarks that this point is so deeply a part of the Western linguistic psyche that it seems surprisingly perverse to even bring it up as an issue. He notes that, in the early twentieth century, Saussure, the father of modern linguistics, did come close to making it an issue, but never followed up his mention of it with discussion about what the consequences of this scriptist stance might be for linguistics; he never really recognised it as the scriptist bias that Harris claims it is. For example, Saussure says,

> ...linguistic signs are, so to speak, tangible: writing can fix them in conventional images, whereas it would be impossible to photograph acts of speech in all their details. The utterance of a word, however small, involves an infinite number of muscular movements extremely difficult to examine and to represent. In linguistic structure, on the contrary, there is only one sound pattern, and this can be represented by one constant visual image. For if one leaves out of account that multitude of movements required to actualise it in speech, each sound pattern... is only the sum of a limited number of elements or speech sounds, and these can in turn be represented by a corresponding number of symbols in writing. Our ability to identify elements of linguistic structure in this way is what makes it possible for dictionaries and grammars to give us a faithful representation of a language. A language is a repository of sound patterns, and writing is their tangible form. (Saussure, 1916, p. 32)

There are three related points intimated here in this quotation that Harris draws out to make clear his contention that what he refers to as 'crypto-scriptism' (Harris, 1980, p. 17)—i.e. unconscious scriptist bias—pervades conceptions of language in Western literate societies and, hence, modern linguistic orthodoxy.

One has to do with the primacy of speech over writing (touched on above) as the real object of linguistic inquiry (Saussure, 1916, pp. 44ff)—writing is merely the graphic representation of speech, and linguists ought to be on their guard against letting the prestige accorded to literacy mislead them into tak-

ing written language to be the object of linguistic inquiry (for example, as he accuses the nineteenth century philologists to have been thus misled). Harris observes that while Saussure appeared to carefully distinguish between speech and writing, and loudly warned about not conceptually confusing written language with the real object of inquiry (viz. spoken language), he did, indeed, himself unconsciously fall victim to a subtle scriptist bias (Harris, 1980, p. 17). The form of this bias is illustrated by the second and third points.

The second point has to do with Saussure's apparent acceptance of the unargued-for belief that the elements of alphabetic orthography accurately represent the real speech sounds of spoken language. Saussure asserts that there are only two systems of writing: the 'ideographic' (of which he cites 'Chinese' as an example) and 'phonetic' (referred to above as 'phonographic'). Phonetic writing he further divides into two kinds: the 'syllabic' and the 'alphabetic'; and he claims that the alphabetic system is '...based upon the irreducible elements of speech' (Saussure, 1916, p. 47). Thus, in spite of the fact that he blames his philologist forebears for not realising that it is typical of spelling to be historically out of step with pronunciation, Saussure seems quite sure that, even if in practice alphabetic spelling is not always used ideally, it does capture the relevant details of the 'irreducible speech sounds' in single graphic images and, therefore, provides the proper analytic tool for phonological analysis of languages.

Moreover, the elaboration of this scriptist thinking in modern phonemic analysis[10] perpetuates the crypto-scriptism. Harris notes that,

[10]Phonemic analysis, generally, is an approach to the phonological aspects of language which seeks to discover, as Harris puts it, '...the minimum number of contrasts it is necessary to recognise in order to distinguish every phonetically non-identical pair of words in the language' (Harris, 1980, p. 15). The notion of the 'phoneme' has been proposed in several subtly different guises throughout the twentieth century; and is still part of the theoretical

> ... the fact that writing developed as it did—from the symbolisation of words, via the symbolisation of syllables, to the symbolisation of still smaller units—provided at each stage a ready-made conceptual matrix for the analysis of speech. As far as is known, the transition from syllabic to alphabetic writing has only been made once in the cultural history of man, and all alphabets are ultimately derived from the same source. Without the transition from syllabic writing to alphabetic writing, the development of phonemic analysis in modern linguistics would be inconceivable. (Harris, 1980, p. 15)

Harris futher notes that there is no evidence that the inventors of alphabetic writing, presumably the Phoenicians, were concerned with anything like phonemic analysis. Indeed, he remarks that,

> ... devising a successful alphabet does not require its solution [i.e. phonemic analysis]. It merely requires a sufficient number of symbols having fixed segmental values to insure the elimination of most ambiguities of word identification. (Harris, 1980, p. 15)

This, together with Harris' contention of the non-necessary connexion between writing and speech, discussed above, show how deeply muddled he believes the scriptist perspective has made western linguistic thought.

The third point intimated in the quotation from Saussure above (and mentioned elsewhere in his work) has to do with Saussure's acceptance of the (again) unargued-for belief that the categories and principles found in grammar books and dictionaries—i.e. talk about sentences, nouns, verbs, subjects, phrases, etc.—represent the 'realia' of language (Saussure, 1916, p. 152–3). Saussure contends that although it is not certain that the descriptive apparatus of traditional grammarians, '... reflects constituent features of linguistic structure', it must be taken as a 'point of departure' (Saussure, 1916, p. 153).

basis of modern phonology. A good historical survey of the notion is found in Anderson, 1985.

Saussure seems thus resigned to the adoption of the traditional analytic categories of grammar, almost as if there is no other choice.

Harris notes that this blind acceptance of the traditional grammarian's terminology also is evident in Chomsky's theory of generative grammar. For example, in *Aspects of the Theory of Syntax* (Chomsky, 1965, pp. 63–4), Chomsky takes the sentence, *Sincerity may frighten the boy*, and provides a list of statements that he alleges would constitute a traditional grammarian's analysis: statements saying, for example, that it is a sentence, that it has identified noun phrases, verb phrases, etc, that it has an identified subject and predicate, that it contains a transitive verb, etc. Chomsky baldly states that, 'It seems to me that the information presented [i.e. the statements of his 'traditional analysis']...is, without question, substantially correct and is essential to any account of how language is used or acquired' (Chomsky, 1965, p. 64). Chomsky adopts the traditional grammarian's kind of terminology and statements, he says, as 'a heuristic procedure' (Chomsky, 1965, p. 63) and boldly asserts that the linguist's task then is to formalise these notions—which he refers to as 'facts' (Chomsky, 1965, p. 208, fn. 1)—in terms of a generative grammar (Chomsky, 1965, p. 209, fn. 2).

Harris is quick to point out that there are several aspects of this apparently innocent adoption of the tools of traditional grammarians that ramify in complex ways. First is the problem of how the terms are being used by various grammarians, right from Dionysius Thrax to Chomsky. This is the grammatical version of the problem mentioned above about what different historians of writing have meant by the term *writing* (see pp. 64–5 of this thesis). He mentions that to understand exactly what is being claimed by Chomsky, for example,

> ...it is essential to discover whether the abstraction [i.e. the sentence and the terms describing it] the transformationalist [i.e. Chomsky] is talking about is the same as the abstraction the traditional grammarian is alleged to have been talking about, irrespective of whether transformationalist and traditional grammarian refer to it in the same way. If not, any contention that transformational theory "confirms" the traditional grammarian's analysis becomes a very curious one. The atom of Rutherford was manifestly not the atom of Democritus, in spite of going by the same name. Hence it would be very curious to maintain, for example, that modern physics confirms as "without question, substantially correct" the account of matter given in *De Rerum Natura.* (Harris, 1981, p. 73)

Harris predictably points out that different grammarians at different times defined terms like *sentence, noun, verb*, etc. in quite different ways. Quintilian (*b.* 35 A.D.), for example, clearly conceived of these terms as educational tools with which he could achieve his pedagogical aims, viz. '...the education of the perfect orator' (Harris and Taylor, 1989, p. 59). And it is worth noting that the basis of Quintilian's pedagogical grammar was writing. As Harris and Taylor comment,

> Here we see a culture which had definitely established writing as the basis for education even though the ultimate objective is still the cultivation of forensic skills. The result is a view of language in which literacy is no longer just a useful but inessential extension of speech. It is the writing system which provides the child from the very beginning with the primary tools for gaining an analytic grasp of the spoken word. Speech is now understood in terms of writing, rather than writing understood in terms of speech.
>
> The importance of this transition in the history of linguistic thought would be difficult to exaggerate. The result is an atomistic conception of linguistic structure which survives down to the present day. Spoken words are treated as complexes built up out of smaller, indivisible phonetic units, through a series of intermediate molecules called syllables. Sentences are then treated as simple sequences of words. (Harris and Taylor, 1989, p. 65)

And all of the descriptive analysis was geared toward an educational programme for the purposes of teaching effective reading, writing, and oratorical skills. The whole descriptive framework of traditional grammar, as anyone in Quintilian's day conceived it, was based on the undefined notion of the word; all of the various distinctions regarding word classes (parts of speech, declensions, etc.), word composition (prefix, suffix, etc.), grammatical category (mood, number, etc.), syntactic relations between words (agreement, government, etc.), sentence types (interrogative, assertoric, etc.), and sentence composition (predicate, clause, etc.), were built around this undefined concept. Harris states that,

> Traditional grammar assumed that there was no need for a definition of the 'word'; and the assumption was correct in that, for pedagogical purposes, it was quite unnecessary. The paradigms which the grammarian set out for his pupil to learn implicitly provided all the information necessary for word indentification. (Harris, 1981, p. 94)

The modern linguistic theorist, on the other hand, has something entirely different in mind. Chomsky, for example, is explicitly not interested in pedagogical accounts of grammar for reading, writing, and oratorical skills; on this account alone, it is clear, Harris contends, that 'what the transformationalist is talking about' and 'what the traditional grammarian is talking about' are entirely different things. Moreover, if Harris is correct about this, then Chomsky's (as well as any other linguist's) adaptation of the traditional grammarian's terminology requires firm rationale for a study of language that purports to be an empirically based science. This issue of the empirical content of Chomsky's linguistics, as well as related ones, will be discussed further in the next chapter.

However, it is worth stressing here that both Saussure and Chomsky are interested in quite a different project altogether from that of the the tradi-

tional grammarian: the founding and maintenance of a 'scientific' study of language. Harris notes that the romance with 'science' goes back at least to the neo-grammarians of the late nineteenth century, who were keen to show that their studies in comparative and historical philology were justly scientific. At this particular time in European history, to be considered scientific was the hallmark of legitimacy for a field of inquiry; and so linguists sought that mark of prestige for their reconstructions of ancient languages and the postulated nomologically causal mechanisms by which languages changed. And Harris notes that the obsession with science has carried on into the present day of modern linguistic theory. Saussure made it clear that a primary goal of his linguistics was to found an autonomous scientific discipline, a science of language (Saussure, 1916, pp. 20ff). Bloomfield was similarly concerned to put linguistic investigation on the righteous path of science, only with the logical empiricist twist then currently in vogue. And, as was clear from the second chapter, Chomsky has followed suit in claiming that linguistics is science. Indeed, nothing has changed with regard to the prestige of the appellation 'science': it is more than ever the case in Western culture that science is the object of deep reverence and it is platitudinous that linguistics is the scientific study of language. Whether linguistics is or is not scientific (or can or cannot be) and whether science does or does not warrant the adoration popularly accorded to it, the point that Harris raises is that the scientific aims of Chomsky are very different than the pedagogical aims of the traditional grammarian; and, therefore, the terms that they appear to share are used in very different ways. I will return to this issue of the amenability of linguistic communicational behaviour to scientific investigation in the next chapter because it is an issue on which Chomsky and Harris have considerably divergent views; but,

for the moment, I will just reiterate that the importation of the traditional grammarian's descriptive framework is really no importation at all, in Harris' view—although the same terms are used by traditional grammarians and the likes of Chomsky, both how they are used and why they are used are worlds apart.

Harris thus sees this quasi-adaptation of traditional grammar (coming as it does with all of its historically-based conceptual baggage), married with the ardent desire on the part of linguists to belong to the venerable institution of science, as creating the modern form of the language myth. The gap left by adopting a descriptive framework that was created and used for quite different purposes needed to be filled by,

> ...explaining what exactly the descriptive statements capable of being formulated were descriptions of. The answer had to be that they were descriptive of some kind of 'linguistic knowledge', once the Saussurian 'internalisation' of the object of analysis was accepted [which was noted in chapter 2, p. 22]. The difficulty, given this internalisation, was that it was quite unclear what, objectively, linguistic knowledge was and hence how the linguistic scientist could ever be sure whether he had succeeded in describing it. Thus he found himself not in the investigatory stance of the empirical scientist at all, but setting out on the path of anti-science. For he had to find—or invent—something describable, to fit the descriptions at his disposal. New descriptive work had to be found for the old terminology of *noun, verb, sentence, subject, predicate*, and the rest of Priscian's and Donatus' legacy. (Harris, 1981, p. 55)

Harris finds it altogether incredible that for the latter day linguistic scientist, '...by great good fortune the terminology developed by his grammarian ancestors to teach their pupils Latin actually did correspond to the realities of linguistic knowledge.... No happier coincidence could be imagined in the whole history of science' (Harris, 1981, p. 55). And he sees the problems *created* by the importation of the language myth into 'linguistic science' as being the

primary impediment to the sensible investigation of linguistic communicative behaviour.

3.3 Roy Harris' Conception of Language and Linguistic Investigation

Just what, then, is Harris' own view of the sensible investigation of linguistic communicative behaviour; what constitutes his concept of language?

For Harris, these observations about the historical influence of European cultural forces on Western concepts of language admit the following conclusion:

> Our verbal behaviour, no less than other forms of behaviour, may, under certain social conditions, give rise to the practice of particular techniques and form the subject matter for intellectual inquiry and the elaboration of theory. But this will not and cannot happen *in vacuo*. How it happens, and exactly what happens, will inevitably reflect in various ways the cultural context in which it happens. (Harris, 1980, p. 32)

Thus Harris' exegetical look at concepts of language and their provenance in Western cultural history affords at least two lessons: one is that how language has been conceived at each stage of that history has been relative to the prerogatives of the socio-political milieu which produced those conceptions—they were established for purposes relevant (perhaps uniquely so) to those milieux; the other is that, given that particular type of relativism, it does not necessarily make sense to blindly adopt the conceptions of previous ages because they can (and most likely will) mislead and intellectually enfetter. So that in the intellectual inquiry into language we ought to be extremely careful of what we take for granted in the fundamental assumptions that we bring to the inquiry; for they can filter out of vision phenomena that might otherwise be fruitfully visible. For example, the decontextualisation involved in the

language myth prevents (indeed, precludes) the realisation both that, '...the contextualisation provided by circumstances is what establishes the kind of determinacy required in language, and it is fruitless to look for determinacy beyond that point' and that, in any case, '...a certain level of indeterminacy is necessary in order to provide the flexibility which communication demands' (Harris, 1981, p. 55).

It is clear that Harris' main concern is with language as one of many modes of communication. He is interested not in a science that conceives of language as something segregated from the rest of human communicative behaviour, but in a science that treats the linguistic as continuous with or 'integrated' in the whole of human communicative behaviour. Harris says that the language myth of modern linguistics is based on the assumption that, 'communication presupposes languages' and then proceeds to attempt to provide an analysis of language as a mechanical system which is completely abstracted from communicational contexts but which is nevertheless used in those contexts. He, on the other hand, accepts exactly the converse as a fundamental assumption on which to base a science of human communication: 'languages presuppose communication' (Harris, 1978b, p. 19). Harris disbelieves in the autonomy of linguistic systems; he asserts that,

> In every form, static systems are unreal to us. We see life as a continuing process of incessant adjustments and makeshifts, none of them very elegant, none of them self-sufficient: moreover, a process of which instability and openness to change are the most conspicuous and alarming characteristics. And it would be surprising if we continued to feel that clear insight into the role which language plays in human affairs is to be gained by contructing grandiose abstract systems which the participants ought to be using in some ideal world. We are likely to have much more practical confidence that we are not wasting our time if we start examining how in fact human beings *do* use words to handle the communication situations that they *are* called upon to deal with in the

real world. (Harris, 1978b, p. 18)

Harris' linguistics would be an 'integrational' linguistics which, '...sees language as manifested in a complex of human abilities and activities that are all integrated in social interaction, often intricately so and in such a manner that it makes little sense to segregate the linguistic from the non-linguistic components' (Harris, 1990d, p. 199). On this view, language would be absolutely meaningless—indeed, it would not exist—unless it was embedded in a context of other forms of social interaction. Harris says that,

> Language as social interaction involves not just vocal behaviour but many kinds of behaviour, and to engage in face-to-face linguistic communication is, in the simplest type of case, to co-monitor with one other person a behavioural continuum along which a succession of integrated events can be expected to occur. To have grasped and be able to exploit these integrational connexions is what makes us communicationally proficient members of a community. That proficiency is not to be explained on the basis of 'knowing the language'. On the contrary, it is only on the basis of that communicational proficiency that one can begin to make sense of the concept of 'knowing the language'. (Harris, 1990d, p. 208)

This amounts to a very radical departure from the line of linguistic thought that has dominated studies of language for over two millenia; it brings into question whether language can even legitimately constitute an independent object of study at all. Saussure raised this very question in the *Cours* and declared that the linguist has to construct the object of inquiry; he said it was the point of view that created the object (Saussure, 1916, pp. 23ff). Harris' answer to that question is *no*. What we normally take to be purely linguistic behaviour cannot sensibly be divorced from the other activities and practices that constitute the lives of human beings, and that provide the only meaningful setting for communication at all. He says, 'Language description of the

traditional kind would not feature at all as a concern of the integrational linguistics here envisaged, precisely because "languages" can only be constituted as *describienda* by a segregational approach' (Harris, 1990d, p. 209, fn. 2).

He claims that the modern linguist, as fixed-code theorist, '... trades upon taking as much as possible for granted [i.e. without providing anything in the way of empirical or clearly reasoned support]' (Harris, 1981, p. 153) in attempting to understand innovation and novelty in linguistic communication—that is, linguistic creativity (not in Chomsky's logistic sense). The claim is that his fixed-code theorist attempts to account for the creativity of language use by persuading us that, '... the noticeably novel cases are novel because they involve departures from a prearranged agreement' (Harris, 1981, p. 153). But Harris asserts that there simply isn't any prearranged agreement (i.e. as opposed to some social convention), when, for example, he says to his neighbour of a morning while strolling down his garden path to work, 'It's going to be a nice day'; which his neighbour may or may not interpret as 'yes, it looks like the weather will be fine' or 'yes, it is Roy's birthday', or any of many other possibilities, depending on the context. The fixed-code theorist makes sense out of this by postulating idealisations such as Chomsky's 'totally homogeneous speech community in which every speaker-hearer speaks and understands his language perfectly'; and there is the further idealisation that that is possible because there is a tacit agreement between all of the members of that idealised language community:

> ... there must surely be prearrangement at some level. Not between you and your neighbour. Nor between neighbours in general. But at least between members of a language community. For anyone who speaks English can understand what you mean if and when you say to your neighbour "Its going to be a nice day". To *that* extent, surely your remark to your neighbour relies for its intelligibility upon a prearranged

agreement. (Harris, 1981, p. 154).

Harris' reply is that,

> ...since there is no such agreement the communicational success or failure of my remark can hardly depend on it. Moreover, the further we move away from considering relations between individuals in specific communication situations towards generalisations about the language community as a whole, the less coherent any talk about prearranged agreements becomes. (Harris, 1981, p. 154)

Here, he is assuming that agreements are intentional acts and that it does not make sense to talk about 'tacit agreements' outside of some particular communicational context. Harris is not denying that people make agreements about the use of words, nor that in some cases those agreements are tacit. He says that, '...their ability to do so is one of the most important aspects of linguistic creativity' (Harris, 1981, p. 154). But he does think that there are both terminological and conceptual confusions about agreements (tacit or otherwise) and about how it is that two speakers of the same language community can produce and understand novel uses of language (as well as banal uses) between them. He does deny that all of the speakers of English, for example, have made some form of tacit agreement about the use of English verbal expressions. The mechanisms in the brains of language users, postulated by Chomsky, for example, offer no help, in Harris' view, to providing a plausible account of this kind of creativity—again, as opposed to the kind that Chomsky defines in terms of the ability to produce and understand a potential infinity of novel expressions. Harris takes that solution to actually create the problem that it is intended to solve.[11]

[11] Harris refers to this kind of situation as an example of 'Sevareid's law'; which says, 'The chief cause of problems is solutions' (Harris, 1981, p. 38). Another example of Sevareid's law operating in linguistics, according to Harris, concerns the adoption of the terminology

Harris, on the contrary, sees the main feature that allows the diverse kinds of creativity evidenced in human communication as being the *contextualisation created by succession in time.* He says,

> Sucession in time, as part of the individual's everyday experience of language, has nothing to do with relating the usage of one generation to that of its remote ancestors, as it does in the historian's perspective. The basic function of succession of time, for the language user, is to provide a unique contextualisation for everything that is said, heard, written, or read. (Harris, 1981, pp. 154–5)

Harris believes that the contextualisation that is possible through temporal change makes every linguistic act a unique event that is integrated into a language user's experience as something new. He says that, '...the claim is not that speakers cannot produce or recognise instantiations of the same expressions on different occasions, rather that this ability does not yield a criterion of demarcation between the linguistic and the non-linguistic, nor imply that whatever we say is decontextualisable' (Harris, 1981, p. 155).

Thus a primary reason that Harris takes the linguistic and the non-linguistic to be far less severable than most modern linguists (and the language myth that founds their conceptions) is the fact of experience that both depend in the very same ways on their inherent 'temporality', i.e. they depend for their communicational effectiveness on 'succession in time' (Harris, 1981, pp. 154ff). Because Harris observes that no linguist in that long tradition has acknowledged the vital relationship between temporality, contextualisation of communicational acts, and the continuity of the linguistic and the non-linguistic, he coined the word *cotemporality.*

Harris maintains that the cotemporality of the linguistic and the non-

of traditional grammar creating the problem of what that terminology describes (Harris, 1981, p. 55).

linguistic stems from the fact that,

> The nature of the contextualisation provided by succession in time derives from the more basic fact that we recognise no separate interpretation of chronological occurrence for linguistic as distinct from non-linguistic events.... linguistic acts have no special status *vis-à-vis* non-linguistic acts in respect of their integration into the sequentiality of experience. Our understanding of human behaviour does not merely not require that they should have, but requires that they should not have. (Harris, 1981, pp. 155–6)

He gives the following simple example of how the linguistic and the non-linguistic are cotemporal:

> ...it is characteristic of language that the conversational sequence
>
> A: 'Can you meet me at seven o'clock?'
>
> B: 'I'm afraid I have to work late.'
>
> differs from the sequence
>
> B: 'I'm afraid I have to work late.'
>
> A: 'Can you meet me at seven o'clock¿
>
> in ways which depend ultimately on the fact that we interpret chronological succession for linguistic acts in exactly the same way as chronological succession for non-linguistic acts; for example
>
> A: opens the window
>
> B: shuts the window
>
> as opposed to
>
> B: shuts the window
>
> A: opens the window. (Harris, 1981, p. 156)

In addition to this kind of obvious cotemporality of linguistic behaviour and non-linguistic behaviour, Harris points out evidence that may not be so

obvious until seen: the fact that linguistic communicative behaviour quite freely combines or integrates with non-linguistic communicative behaviour. Citing an example from Sapir, Harris suggests that,

> ...if someone says to you 'Lend me a dollar', then two very general kinds of option are open to you in response. One type of option involves speech, and the other involves some non-linguistic act of some kind. Doubtless the response your interlocutor hopes for is one of the latter variety, namely your handing over a dollar. Whether or not that is accompanied by a linguistic response as well (for example, 'Of course', or 'Here you are') is to him of less importance. What he hopes not to have is a linguistic response of the type 'No' or 'Certainly not', or a shake of the head. Thus, Sapir said, 'in those sequences of interpersonal behaviour which form the greater part of our daily lives speech and action supplement each other and do each other's work in a web of unbroken pattern'. Sapir conceived of mutually substitutable linguistic and non-linguistic responses in an exchange as being 'structurally equivalent' (Harris, 1981, p. 162)

Another example would be the ways in which non-linguistic acts combine with speech to make what amount to single sentences. For example, in the utterance '↗ is the culprit', the ↗ could be a nod of the head, a pointing of the finger, a movement of the eyes, the act of writing a name on a piece of paper, etc.

A deficiency that Harris points out in the language myth would be how it might account for the cotemporality we have been discussing. Harris suggests that the segregationalism of the language myth disconnects language from language use and communicational context so that the only explanation of cotemporality would be extraordinary coincidence. He says,

> It would make very little sense to suppose that cotemporality reflects merely the behavioural consequences of certain features of the autonomous organisation of languages (although that is, at least by implication, the conclusion which the language myth projects). For it would then be an endless series of coincidences which had to account for the universality of this particular way of integrating linguistic and non-linguistic

> behaviour. Or else it would have to be supposed that the relevant structural linguistic features were in some way necessarily present, for independent reasons, in all languages. (Harris, 1981, p. 163)

On this latter possibility, Chomsky has given the most recent formulation of the language myth's answer in terms of the innate 'language acquisition device' (e.g. Chomsky, 1965, pp. 32ff)—in essence, what he now calls universal grammar (discussed in chapter two). But Harris questions the plausibility of that response and provides what he thinks is a more likely possibility:

> ... the more completely linguistic analysis is isolated from—and treated as prior to—any examination of the external manifestation of language in behaviour, the more tempting it becomes to 'internalise' also the source of structural regularities. The innateness theory, however, in turn would require us to believe in an even greater coincidence: that Providence supplied *Homo sapiens* with environments and social circumstances which enabled him to make good use of his fortuitous genetic endowment. The alternative is to suppose that cotemporality is ultimately a reflexion of the way language evolved behaviourally from the creative adaptation of non-linguistic behavioural patterns. Language cannot be the evolutionary tail that suddenly started wagging a surprised dog. (Harris, 1981, p. 163)

This represents a significant divergence from Chomsky's view.

Thus Harris' integrational linguistics would inquire into the various ways (strategies, techniques, etc.) in which language users, in practice, combine linguistic behaviour and non-linguistic behaviour in communicational interchange, that is to say, in the ways that they harness cotemporality for their communicational ends. This would be a linguistics operating from the language user's perspective and would include questions for research such as the following:

> How can we describe systematically what the speaker and the hearer have to do in order to integrate speech relevantly into the temporal

> flow of episodes which they are jointly co-monitoring? To what extent does this integration depend on (i) linguistic and (ii) non-linguistic techniques? How are these two varieties of techniques correlated? To what extent are they interdependent? How far does the employment of verbal devices itself depend on the availability of non-linguistic information? How far do the non-linguistic techniques themselves rely on relevant verbalisation? How do the integrational techniques, verbal and non-verbal, vary according to factors such as the status and number of the participants involved? What assumptions about the past linguistic and non-linguistic experience of the interlocutors do these techniques presuppose? To what extent do different communicational media and different types of situation affect the language of the participants in systematic ways? In short, how do people actually use words to communicate, and how can this be described in ways which yield statements which both correspond to the language-user's experience and are open to the kinds of verification and disproof characteristic of the empirical sciences? (Harris, 1981, pp. 163–4)

For Harris, these are questions about empirical matters and can be, therefore, amenable to the methods of empirical science. The questions are about the creative uses and renewal of a multitude of communicational devices that range from the linguistic to the non-linguistic. Harris says that, 'The basic principle which an integrational linguistics will be concerned to give adequate expression to is that language is continuously created by the interaction of individuals in specific communication situations' (Harris, 1981, p. 176). On this view, language is something that we make up as we go along, based on past experience, creative ingenuity, and current communicational requirements. Harris says that an integrational linguistics would be a 'demythologised linguistics' and would, in a general way, '... be an investigation of the renewal of language as a continuously creative process' (Harris, 1981, p. 164). This study would be in some respects difficult and in some respects straight-forward. For example, the fixing of relevant past experience represents challenges; Harris comments

that,

> ... the extent of past experience is irrecoverable. Only in the case of very young children is there at present any hope of assembling anything like a complete record of evidence which could form the basis for judgments concerning the probable role of past linguistic experience in the communicational articulation of a current situation. In this respect, linguistics is in no better but no worse a position than any study of human behaviour which is presumptively based in some important measure on the individual's accumulation of a lifetime's learning. (Harris, 1981, p. 186)

About this 'unsatisfactory evidential situation' (Harris, 1981, p. 187) Harris is quite optimistic, though; he believes that techniques for the monitoring of communicational behaviour and storing and analysing data relevant to its study will in the future improve to reduce the difficulty associated with determining and recording relevant past experience.

On the positive side, however, Harris believes that it will be much more readily possible to monitor the ways in which that past experience is put to use in creative communicational exchange. He says,

> ... what is important from an integrational perspective is not so much the fund of past linguistic experience as the individual's adaptive use of it to meet the communicational requirements of the present. That use is—and can only be—manifest in the communication situation itself. No new technology is required to study it. The evidence is available *in praesentia.* All that is lacking is the readiness to accept it. (Harris, 1981, p. 187)

So Roy Harris' integrational concept of language and linguistic inquiry is very different and largely antithetical to mainstream modern linguistics, which, he argues, is founded upon a language myth. Some of the issues on which Harris' integrational linguistics clashes with the virtually gratuitous tenets of modern linguistics include: the degree of determinacy in language;

the importance of temporality in understanding linguistic communication and the connexion between the linguistic and the non-linguistic; the rejection of autonomous linguistics as well as the autonomy of linguistic communication; the rejection of the modern linguist's concept of grammaticality; the widening of the purview of linguistics to include such aspects of linguistic communicative behaviour as translation, freedom of speech, historiography of linguistics; and the integration of language with other forms of communication behaviour.

Harris, in a recent summary of his work, says that his integrationalism,

> ...redefines linguistics as mode of inquiry into the construction and articulation of our linguistic experience. It inquires not into the hypothetical structure of abstract linguistic systems, nor into the even more hypothetical representations in the human brain, but into the everyday integrational mechanisms by means of which the reality of the linguistic sign as a fact of life is established. For this purpose, in contradistinction to all previous linguistic programmes, it rejects any a priori attempt to circumscribe the phenomena of language or to draw a distinction between language and non-language which will be valid in each and every case. Instead, it delimits its own sphere of investigation by reference to dimensions of communicational relevance which apply to all forms of sign behaviour in human communities. Such an inquiry may conveniently distinguish between three different scales or levels of relevance, depending on the mode of our involvement in communicational processes. One scale, which may be termed 'macrosocial', deals with factors which situate any given communication in its particular historical and cultural context. A second, which we may term 'biomechanical', deals with factors of a physiological and physical nature which determine the parameters of communication within that situation. The third scale is the integrational scale itself, concerned with communication as a function of the individual's experience in the context of a given situation. (Harris, 1990e, p. 50)

3.4 Summary

This chapter has been devoted to an exposition of the basics of Roy Harris' concept of language and linguistic investigation. I have discussed his belief that the conceptions of language and its analysis, that have had widespread currency throughout the Western intellectual tradition, have been brought together in the twentieth century to provide what he takes to be the *mythological* foundations of modern linguistics. This 'language myth', as he calls it, consists in the acceptance of, primarily, two fallacious doctrines about language: the 'telementational' fallacy and the 'determinacy' (or 'fixed-code') fallacy. The telementational fallacy assumes that linguistic communication amounts to the transferring of thoughts or ideas between language users. The determinacy fallacy involves the view that languages consist in finite closed self-contained and determinate mechanical systems that are shared in one way or another by the members of language communities, and that facilitate the telementation process. Each of these doctrines have occurred in many different guises throughout their history of development; and Harris argues that they have been nurtured and supported by the socio-political events and institutions throughout Western history. Harris points out that there is evidence of the effects of these fallacies in modern discussions of language both in the common (and technical) metalanguage used to talk about natural language, and in the recorded events of Western history itself. By looking closely at that metalanguage and the historical, social, educational, and political milieux in which that metalanguage developed, Harris attempts to show how and why the language myth gained such intellectual force and dominates the minds of linguists today.

I discussed the ways in which Harris sees the invention of writing, and

the ways that that invention has been conceived in subsequent literate societies, as having had a fundamentally profound effect in the conception and the support of the language myth; scriptism—the bias due to the belief that writing is a more ideal form of linguistic representation than speech—has, he believes, coloured Western concepts of language henceforth. The scriptist biases in antiquity, for example, helped to facilitate the use of language through an educational system that was driven by societal needs. In the subsequent development of European nations, as well, the scriptist biases facilitated the birth of nations and their individuation as autonomous entities. In both of these cases, linguistic thought was geared toward the social and political purposes of the culture and time in which they occurred—there was no claim, in these particular purposes, to the status of scientific theories delivering the objective truth about language. In both of these cases, language was conceived of instrumentally—as a tool for achieving certain communicational ends, e.g. political persuasion—and/or contractually—a means of achieving social convention and cohesion. Harris asserts that parallel to these two instrumentalist and contractualist concepts of language a third concept developed; one which was initially interested in the philosophical pursuit of truth and the nature of reality: the 'surrogationalism' of Aristotle. Harris characterises surrogationalism as the view that words stand for or represent ideas or objects in the world. All three of these conceptions of language had their beginnings in the ancient Graeco-Roman world and have developed on through to the middle ages and beyond into modern linguistics. They have at various times throughout their development both been at odds and been mutually supporting. I noted that Harris' point in his historical observations is that the concepts of language that have converged in the twentieth century to form the language myth are

products of the social and political affairs of the cultures that created them; and that they do not, thereby, necessarily apply relevantly to present studies of linguistic communication; and, in fact, that they have little empirical support.

I noted that, indeed, Harris denies that the language myth has any use at all in sensible science of linguistic communication within the current Western cultural context. Harris' main reasons for rejecting the language myth involve his outright rejection of its constituent fallacies. He believes that the function of language is vastly more diverse than the transferring of thoughts between language users, which itself he sees as a dubious doctrine. He also contends that the degree of determinacy in linguistic communication is far less—and happily so—than the language myth accords to it. It is the large amount of indeterminacy that Harris takes to endow language with the flexibility required for effective communication. In addition, he sees the decontextualisation of language, inherent in both fallacies as denying the major factor that does allow linguistic communication to be effective, viz. the communicational context of social interaction. It also denies the inherent cotemporality of linguistic and non-linguistic communicative acts—'cotemporality' being Harris' term for the identical ways in which chronological succession structures and affects both the linguistic and the non-linguistic.

Having discussed Harris' rejection of the language myth and the modern linguistics that is based on it, I provided a short outline of the kind of programme for a science of human communication that Harris does promote. He calls his linguistic enterprise an 'integrational' linguistics, indicating the importance, in his view, of the integration of linguistic behaviour with communicational context as well as non-linguistic behaviour. In Harris' view, then, an integrational linguistics would be empirically based, as any other science

of human behaviour, and would study linguistic communication as one mode of communicative behaviour that integrates in many ways with non-linguistic behaviour and is driven by the communicational requirements of the diverse forms of social interaction that human beings engage in.

I noted that Harris' integrational linguistics diverges in quite radical ways, and on many issues, from modern mainstream linguistics. Some of these differences involve issues such as the nature of grammaticality, the degree of determinacy in language, the autonomy of language and linguistics, and the breadth of linguistic topics within the purview of a science of human linguistic communication.

We shall see in the next chapter how these differences in Harris' integrational linguistics contrast with the concept of language and linguistics of Noam Chomsky's that was laid out in chapter two.

Chapter 4

The Tension Between Chomsky and Harris

4.1 Introduction

Having outlined the basic views of both Noam Chomsky and Roy Harris, this chapter will be, in essence, an essay in determining some of the ways in which their views stand in contrast to one another, where there are compatibilities (both overt and unstated) and clear divergences, where they appear to make sense and where they do not. Much of this discussion will have the tenor of considering Chomsky's views in light of Roy Harris', since Harris presents some interesting challenges to anyone who espouses the views associated with his description of the language myth; and, to anticipate the results, the ideas of Chomsky fail, by and large, to provide a sensible account of linguistic communication in light of Harris' views—in particular, Chomsky's methodological assumptions appear to be weak.

I will begin this chapter with some general observations of Harris' critical commentary on what he calls the language myth and the extent to which that commentary actually applies to Chomsky. Next, I will look at the issues on which Chomsky and Harris clearly disagree and attempt to understand where sense is to be found in those disagreements; and, in particular, I will focus on the only issue on which they have any real degree of agreement, viz. the involvement of the brain in the language faculty.

4.2 Noam Chomsky and the Language Myth

One of the first things that needs to be made clear is the extent to which Chomsky's concept of language and linguistic study actually is open to Harris' criticism; to what extent Chomsky's concept of language is 'mythological' in Harris' sense. In his writing, Harris quite often lodges his attacks non-specifically at 'modern linguistics' or at 'the modern linguist'; there is a broad range of approaches and foundational commitments in modern linguistics, some of which either clearly fall outside of commitment to the doctrines of the language myth, or are non-commital with respect to foundational commitments, choosing instead to analyse languages with the tools of some analytic framework or other and reserving judgment about the scientific and philosophical underpinnings and interpretation of the chosen framework. Thus it is possible to come away from Harris' work, in some cases, wondering just which linguists he refers to under the vague appellation, 'modern linguist'. However, from the outlines of Chomsky's and Harris' respective concepts of language sketched out in Chapters Two and Three, it should be patently clear that Chomsky's concept of language is an absolutely classic example of Harris' 'language myth'; indeed, it would not be an exaggeration to say that it is *the* modern paradigm case.

Chomsky certainly propounds a version of the telementational doctrine. He has quite often made statements like the following: '... a language is a particular way of expressing thought and understanding the thought expressed.... To know a language is to have mastered this way of speaking and understanding' (Chomsky, 1991a, p. 8). And again, 'The structural descriptions generated by the I-language are abstract representations of expressions, made available by the resources of the mind for thought and its expression' (Chomsky, 1991a,

p. 12). Although he seems to avoid much explicit discussion of the issue in his writings, Chomsky thus appears to espouse a surrogationalist version of the telementational doctrine in which expressions are surrogates for thoughts (which are also mentally represented). He clearly champions a 'representational/computational' theory of mind and language (Chomsky, 1991a, p. 12).

Chomsky also very clearly espouses a strong version of the determinacy doctrine. He has for many years discussed language acquisition in terms of the language faculty beginning in an 'initial state', transiting through various intermediate states, with linguistic experience triggering the transitions, to a 'steady state', in which a language is completely acquired in the form of a finite closed system capable of representing a potential infinity of expressions; this is the view proposed in Chomsky, 1980, pp. 187ff, for example. His principles and parameters approach is the latest incarnation of this version of the fixed-code thesis, in which the initial state is now equated with universal grammar and the steady state is the mind/brain state in which all of the relevant parameters have been set for some language or other, with the language-universal principles and rules applying, along with some kind of mentally (neurally) represented catalogue of peripheral linguistic phenomena.

In addition, Chomsky's distinction between linguistic competence and linguistic performance provides the modern setting for the decontextualisation of language from its communicational context that is characteristic of the language myth.

Thus all of the historical ingredients that Harris observes have coalesced to create the modern language myth, are present in Chomsky's concept of language—e.g. his surrogationalist representational/computational theory of language and mind, and the contractualism concealed in his notions of I-

language and grammaticality. Instrumentalism has taken a back seat to these other concepts of language, I think, because of the relegation of the study of linguistic performance, where any instrumentalism would be found, and because of the elevation of linguistic competence as the high priority study—indeed, it is just this instrumentalist aspect of his concept of language, found in 'Descartes' problem' (the problem of how language is used), that Chomsky acknowledges but fails to deal with.

In any case, Chomsky's concept of language surely fits into the language myth mould that Harris takes aim at in the critical side of his work. The next section will be devoted to looking at some of the major aspects of the tension that results between Chomsky and Harris—the few areas of agreement and the complex of disagreements—in the attempt to come away with a clearer understanding of the issues involved.

4.3 The Tension: Abstract Mechanisms Versus Integrationalism

The *fundamental* difference between Chomsky's and Harris' views consists in their respective conceptions of what the language faculty is and what languages are. They differ with respect to 'where' language and languages are 'located' (metaphorically speaking), and which aspects of that broad range of behaviour, commonly known as linguistic, are included in the concept of language. To reiterate, Chomsky claims that the language faculty is a physical thing, a part of the human brain, which is physically configured in a certain way, genetically determined, and goes through structural or configurational changes until the structure becomes stable—at that point, that part of the brain becomes a language, i.e. an I-language (universal grammar with relevant

parameters set). He claims that it is obvious that the only 'scientific' (and thus meaningful) road to discovering the nature of these brain structures is through the prior working out of an abstract formal characterisation of what they will be. Chomsky claims that it is a mistake to consider all of the social, normative, political, educational, etc., activities or practices that we normally associate with language as being in any way essential to language; all of these aspects of what is normally seen as linguistic behaviour are phenomena in which use is made of the language faculty and I-languages. But they have nothing whatever to do with defining, describing, specifying or explaining the language faculty and I-language. The language faculty and I-language are physically realised in neural structures, as are the other cognitive systems that together precipitate linguistic (and other) behaviour. Chomsky concedes that those phenomena exist but, again, that they have nothing to say about language as he defines it. Chomsky's view, as Harris has put it, is that ' communication presupposes language'; hence, the study of language properly, according to Chomsky, is unconcerned with behaviour and communication.

Harris, on the other hand, has a virtually diametrically opposed conception of language. Language, the language faculty, the capacity for language, consists in a complex set of abilities manifested in the social interaction of human beings. Language, therefore, on Harris' view, is not a thing, it is not a physical object, grey matter or otherwise—although, it is manifested in the physical, i.e. in the conventional and creative communicational behaviour of human beings. Harris' conception of language assumes the exact converse to that of Chomsky: 'languages presuppose communication'. It is in the communicational requirements of human beings in human societies that, he thinks, both originally engendered language and maintains and renews it. It is not

thoroughly systematic in the way that Chomsky presupposes. It is not necessarily structured in terms of sentences, nouns, agreement, etc.—those ways in which Western civilisation has developed to talk about it are not essential to it but a part of it, a part of its renewal engendered by the communicational purposes of Western civilisation. Harris acknowledges that human brains are implicated in some of these abilities, and the extent to which they are is unknown and worthy of study—it represents a part of the 'biomechanical' (Harris, 1990e, p. 50) analysis of linguistic communicational behaviour. But neither languages nor the language faculty *reside in* human brains; they reside in the continuous and creative verbal behaviour of language users. Brains and other anatomy—and their physiology, etc.—will figure into the empirical analysis of linguistic communicational behaviour insofar as they are found to correlate to various relevant motor, sensory, and perceptual aspects of that communicative behaviour.

Chomsky accepts that there are behavioural phenomena in which language is involved—typically communicative behaviour with social, normative, etc., elements—but that those phenomena are not of concern to serious linguists. Harris accepts that brains are involved in linguistic phenomena in many—mostly yet-to-be-determined—ways; but, for Harris, that is just one dimension of the full integrational study of linguistic behaviour—the dimension largely of concern to neuroscientific linguists (i.e. neuroscientists interested in linguistic behaviour). Given that they both acknowledge roughly the same range of phenomena connected in one way or another with the linguistic, I think that discussion of the following questions exposes the root of the tension between Chomsky and Harris: (1) Are the macrosocial and integrational aspects of Harris' integrational linguistics compatible with Chomsky's abstract theory of

the language faculty and I-language, and their anticipated reduction to neural terms; that is, would Chomsky see value in Harris' view of 'social political' and 'normative-teleological' aspects of language use? and (2) Would Chomsky's concept of language flesh out the biomechanical aspects in Harris integrational linguistics, adding the sensible biomechanical dimension to the macrosocial and integrational dimensions? The answers to these questions are, I think, *no* and a qualified *yes*, respectively.

Chomsky seems to be somewhat ambivalent about the possibility of sensible work being possible on what Harris refers to as the macrosocial and integrational aspects of language use; and, in any case, those aspects are not within the domain of interest of linguistics. He does,

> ...not deny the possibility or value of other kinds of study of language that incorporate social structure and interaction. Contrary to what is sometimes thought, no conflicts of principle arise in this connection. (Chomsky, 1986, p. 18)

And yet the following quotation, attempting to undermine efforts on the part of researchers to characterise language in those social, etc., terms, seems to reject the possibility of meaningfully accomplishing what he says above is, in principle, not in conflict with his linguistics:

> All of these conceptions [viz. of language as a social practice] are at best problematic. As is well-known, the "fundamental sense" of language in the terms suggested...involves complex and obscure sociopolitical, historical, cultural, and normative-teleological elements, which may be of some interest for the sociology of identification within various social and political communities and the study of authority structure, but which lie far beyond any useful inquiry into the nature of language or the study of meaning or the psychology of users of language. All such conceptions bear a heavy burden of proof, and it is doubtful that it can be met. They cannot be lightly assumed to be "clear enough" or even meaningful... (Chomsky, 1991b, p. 31)

It is clear that Chomsky believes that the 'complex and obscure' elements he cites in the quotation have nothing whatever to do with the study of language, and that attempts to study these phenomena have so far been fruitless because the notions used in their study have not been 'clear enough'—which begs several questions about the criteria for 'clear enough' and whether the terms that he himself uses meet those criteria; but the previous quotation suggests that, if clear enough notions were developed in which to study those complex and obscure elements, then they would be compatible with and, in fact, necessarily use his theory of language in their study. Since Harris sees the terms that Chomsky finds unclear clear enough to use in the macrosocial and integrative ends of integrational linguistics, Chomsky would summarily reject Harris' integrational linguistic programme.

In addition, Chomsky contends that some of the aspects of language use that Harris believes are capable of being studied in the behaviour of language users—e.g. communicational intentions, an aspect of the springs of human action—are very possibly beyond human understanding.

But fundamentally the reason that Chomsky would reject Harris' integrational linguistics being mated to his principles and parameters theory is that they come to the discussion with irreconcilably different pre-theoretical definitions of language; it is on that very basic point that they diverge from the beginning. The point is that Chomsky seems to believe that *any* meaningful discussion of language use—e.g. in its social dimension—is parasitic on the prior formal specification of language; without that piece of discrete neural anatomy that Chomsky abstractly identifies with the language faculty and I-language, any talk of the social dimension of *its* use is nonsense. Harris, though, finds perfect sense in talk about the social dimensions of language

without reference to the biomechanical dimension. Thus Chomsky, from first principles, would reject anything that Harris says, with his particular definition of language grounding it. Chomsky's conception of what is relevant to linguistic investigation is so pared down that it virtually excludes most of what most of the world takes to be relevant to linguistic phenomena—certainly what Harris takes to be relevant to linguistic phenomena and their study. This is why I take the answer to the first question I posed above to be *no*: on Chomsky's conception of language, with his principles and parameters theory, Harris' integrational linguistic programme would not be at all compatible.

The other question is, I think, somewhat different, however. What Harris objects to in Chomsky is not his project of systematic analysis—that project is, after all, open, eventually, to empirical confirmation or disconfirmation: Chomsky's claims are about what neuroscientists will discover about the brain, with respect to language. Within a programme of integrational linguistics, it is logically possible that a formal model of the kind that Chomsky has developed in the principles and parameters theory could be consistent with the empirical results of biomechanical research within that programme. For this reason, my answer to the second question is 'yes'. But that 'yes' must be highly qualified because, as far as I can see, what Harris objects to are Chomsky's methodological assumptions, which are rooted in what Harris calls the language myth, and the interpretation that those assumptions force on what might otherwise be part of an interesting formal biomechanical model.

Methodologically, Harris believes that Chomsky starts off on the wrong foot and, henceforth, is irredeemably lost. Harris has, to my mind, many more, and more cogent, reasons for rejecting, *on methodological grounds*, Chomsky's theory of language as filling in the biomechanical dimension of integrational

linguistics than Chomsky has for rejecting Harris' macrosocial and integrational dimensions of language use that Chomsky finds might, in principle, be consistent with his linguistics. However, it is logically possible that Chomsky's formal model of language, irrespective of how he arrives at it, may turn out to be quite accurate. Another way of saying this, taking into account possible objections having to do with incommensurability, would be to say that many of the statements of the principles and parameters theory could be imported and reinterpreted into a biomechanical account of at least some aspects of linguistic phenomena, within an integrational programme.

The crux of the matter concerns to what extent Chomsky's principles and parameters theory of language makes sense as an empirical theory of the neural substrates of linguistic communicative behaviour. And for reasons that Harris adduces, and other reasons that I will also mention, it appears difficult to take Chomsky's theory to be a serious empirical theory of the neural mechanisms involved in the language faculty and in particular languages—or even as a necessary conceptual precursor to such a theory, which is essentially what Chomsky claims.

There are several issues bound up here. There are the aspects of Chomsky's principles and parameters theory that fix him firmly within the bounds of the language myth, as described by Harris. The telementational thesis, implicit to some extent in Chomsky's view, I think, happens to be the least problematic for Chomsky because it is not present in Chomsky's theory as the sole function of the language faculty. It seems clear enough that, on Chomsky's view, I-language, as a discrete part of the mind/brain, can be used by any of the other cognitive faculties and resources that constitute a person for any number of purposes, including the many functions that

Harris cites, such as, '...influencing the behaviour of others,...adopting certain public roles,...establishing interpersonal contacts,...expressing one's own individuality,...exercising the imagination,...reasoning, and...maintaining social cohesion' (Harris, 1981, p. 8). So as far as the telementational thesis being implicit in Chomsky's theory goes, I believe that *it* does not render the rest of his account senseless as an abstract account of the physical substrates of language.

However, the various dimensions of the determinacy thesis do have great bearing on Chomsky's methodological assumptions and are questionable on that account. Some of these mutually intersecting dimensions include the degree of systematicity accorded to language, the decontextualisation of language from the multifarious communicational contexts in which we have the only empirical basis for inquiry, the alleged priority of abstract formalisations over getting the hands dirty with physical data, i.e. looking at actual brains and behaviour, the questionable empirical base that Chomsky claims for his theory, i.e. the grammaticality judgments of speakers, and the non-empirically based adoption of a descriptive framework that was originally devised for quite different purposes than for an empirically based science of language.

Answering the question, at least as old as Varro, about the degree of systematicity in language is a fundamental starting point for Chomsky. As mentioned in Chapter Two, Chomsky has adopted the view that what he calls 'core language', conveniently defined to include only those aspects of language that are open to abstract formal systematic analysis, is completely systematic. Chomsky's project is to abstract all other aspects of what we normally call language away from that which he can formalise straightforwardly in the principles and parameters framework and relegate those phenomena to the status

of non-language; thus he achieves total systematicity. Harris, I noted, observed that the historical development of writing, the grammar book, the monolingual dictionary, and the ancient conceptions of language that they have been based on, reinforced this 'drive for system', as Quine called it. Chomsky finds that total systematicity at the cost of radically redefining (by reducing) just what language is conceived to be. According to Harris, what is strange about this theoretical move is the apparent assumption involved that all of the other linguistic phenomena that Chomsky abstracts away from cannot be systematically analysed. Harris believes that those phenomena are open to systematic analysis, to some extent yet to be known—this is a fundamental assumption for Harris' integrational linguistics. Harris' objections to Chomsky's assumption of systematicity are (1) that language phenomena are not totally systematic in the way that Chomsky requires (and that this lack of total systematicity actually facilitates the observed flexibility required in communication), (2) that to achieve that degree of systematicity, Chomsky needs to tailor or filter the data of linguistic behaviour to fit the theoretical requirements, and (3) the resulting explanation that Chomsky claims to achieve is ultimately an explaining away of phenomena that both are linguistic phenomena by virtually everyone's lights but Chomsky's (and his followers') and still stand in need of explanation.

Closely related to Chomsky's idealised systematicity is the issue of decontextualisation. By positing language as an object of knowledge, a totally deterministic self-contained system, Chomsky removes the study of language from its only empirical basis. Harris puts the point as follows:

> The abstract object of knowledge, 'language', is at double remove from direct observation. It is once removed in that we cannot hope to see the workings of language except insofar as they are manifested through particular languages. But it is twice removed in that particular languages, as such, are not directly available to observation either. All that we can

> observe directly (in the sense in which 'direct observation' is conducted in the natural sciences generally) are specific speech events, utterances, inscriptions, and reactions to them by members of a linguistic community. (Harris, 1981, p. 44)

Harris' integrational linguistics acknowledges that its empirical basis is to be found there, in the context of linguistic behavioural data that is directly observable in its macrosocial, biomechanical, and integrational dimensions; not in the decontextualising of language.

Another aspect of the complete systematicity and decontextualisation that Chomsky assumes is the descriptive framework that he harnesses to flesh out the principles and parameters theory: essentially, the descriptive apparatus of traditional grammar together with the modern formal tools of metamathematics—neither of which were originated for the task that he sets for them. I have already mentioned Harris' qualms about the adaptation of traditional grammar; but he objects, as well, to the conceiving of language as a formal system. Neither the adoption of the traditional grammarian's descriptive apparatus nor the adoption of the logician's is, in Harris' view, empirically motivated to account for the observable facts of linguistic behaviour; they are both motivated from a certain conceptually confused pre-theoretical conception of language. For example, with the adoption of the logician's tool-kit, Harris sees evidence of the deep conceptual confusion that he associates with the 'determinacy fallacy'; he says,

> It is to treat a language as if it were, on the formal plane, a closed logistic system of the type devised for purposes of mathematical logic, within which 'well-formedness' of a formula can be 'proved'. But the fact is quite simply that the languages used in everyday life are not enormously blown-up logistic systems. On the contrary, logistic systems are drastically cut-down versions of everyday languages. And an essential purpose of the cutting-down is to provide the logician with a limited

> self-contained decontextualised system within which the procedures of mathematical proof can be manipulated. (Harris, 1981, p. 76)

'Thus', he says, 'to interpret "grammaticality" as some psychophysical counterpart to well-formedness in a mathematical system is to foist a grotesquely inappropriate analogy upon linguistic behaviour as a whole' (Harris, 1981, p. 76).

Given these observations, and Chomsky's assertion that his principles and parameters theory is an empirical theory, it is interesting to consider what he takes to be a legitimate empirical basis for his theory. In Chomsky, 1986, pp. 36ff, under the section heading, 'The Empirical Basis for the Study of I-language', he says,

> In actual practice, linguistics as a discipline is characterised by attention to certain kinds of evidence that are, for the moment, readily accessible and informative: largely, the judgments of native speakers. Each such judgment is, in fact, the result of an experiment, one that is poorly designed but rich in the evidence that it provides. In practice, we tend to operate on the assumption, or pretense, that these informant judgments give us "direct evidence" as to the structure of the I-language, but, of course, this is only a tentative and inexact working hypothesis, and any skilled practitioner has at his or her disposal an armory of techniques to help compensate for the errors introduced. In general, informant judgments do not reflect the structure of language directly; judgments of acceptability, for example, may fail to provide direct evidence as to grammatical status because of the intrusion of numerous other factors. The same is true of other judgments concerning form and meaning. These are, or should be, truisms.... To be sure, the judgments of native speakers will always provide relevant evidence for the study of language,... if a theory of language failed to account for these judgments it would plainly be a failure.... (Chomsky, 1986, p. 36)

It seems that there is an implicit circularity in the relationship between data and evidence: the grammatical judgments constitute data for which the theory of language must account and, as well, they constitute evidence that the

theory is on the right track. Presumably, the grammaticality judgments used as evidence for the theory are *new* judgments which are predicted by the theory, based on other grammaticality judgments as data. However, this kind of relationship between data and evidence is quite different in the case of grammaticality judgments than it is in the case of physical causality, for example. The causal connexion involved in the prediction of a piece of blue litmus paper turning red when exposed to an acidic solution has a necessity about it that is hard to see in the prediction of grammaticality judgments—because of the nature of grammaticality judgments.

Thus there are several points on which to question this 'empirical basis'. The reliability of the speaker's judgments is questionable from at least two points of view. First, this evidential base consists in *performance* data, and, by his own lights, performance data is unreliable. In making the competence/performance distinction, Chomsky suggests that performance obscures competence; he takes, '... such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic)' (Chomsky, 1965, p. 3) to at least partially constitute performance data. It seems that if 'random errors' result from the mechanisms of performance—i.e. from I-language together with the other cognitive systems that figure into language use—then the reliability of the judgments of grammaticality falls into question, and, thus, the legitimacy of those judgments as data falls into question. It is logically possible that some of those other cognitive mechanisms introduce random or systematic errors that may put the actual I-language forever out of sight; and the I-language formalisms that result from using this data would be, to some unknown degree, inaccurate.

In addition to unreliability of this form, potential problems creep into the

inquiry that are inherent in the notion of grammaticality itself and how that notion is understood by informants. This particular problem ramifies in several ways. For example, asking for grammaticality judgments is asking for a certain kind of metalinguistic judgment. However, it is by no means true that all language users have the same metalinguistic tools and criteria—even among speakers of 'the same language'. Harris points out the following interesting observations about the culture-relativity of metalinguistic expression.

> Most Europeans would be puzzled to know how to reply if asked the question 'What is the word in your language for what people say on Thursdays?', or 'What do you call words spoken at night?'.... But these questions would make perfectly good sense to a Mayan Indian of Tenejapa, whose language, Tzeltal, provides commonly used designations for all of these[1]. It is not that the European lacks the linguistic resources to make up a translation such as 'Thursday talk', or 'night words'; but rather that he would be at a loss to understand the point of drawing such distinctions. It is not part of his concept of a language that a language should provide you with Thursday talk or night words, and if it does not do that then it need provide no corresponding metalinguistic expressions either.
>
> The European, on the other hand, finds nothing odd about such questions as 'What is the word in your language for the clothes people wear on Sundays?', or 'What do you call a garment worn at night?'... For his concept of clothing, unlike his concept of language, incorporates the notion of appropriateness to different times of the day, of the week, or of the year. Time is one of the important conceptual parameters in the European's categorisation of clothes, food, and many other things; but a relatively unimportant one in his categorisation of words...
>
> His everyday vocabulary of speech acts, however, provides ample indication of what the European does expect a language to offer him: forms of words for apologies, thanks, refusals, congratulations, curses, warnings, promises, and many other purposes. But unlike the metalinguistic vocabulary of Tzeltal it does not make special provision for dis-

[1] Harris cites the following work as a source for these observations: B. Stross, 'Speaking of Speaking: Tenejapa Tzeltal Metalinguistics', in R. Bauman and J. Sherzer, eds., *Explorations in the Ethnography of Speaking*, Cambridge: University of Cambridge Press, pp. 213–39.

> tinguishing what is said according to the bodily posture of the speaker; for example, sitting down, lying on one's side, lying on one's back, and kneeling on all fours.
>
> ...The conscious classification of words into 'parts of speech', according to their form and grammatical function, which is reflected in the metalinguistic vocabulary of all European languages is, by contrast, a feature almost entirely lacking in many non-European languages. Usually such classifications, as the history of grammatical doctrines in Europe well illustrates, are the work originally of a small class of 'language experts'. But the experts' concept of a language may well, by processes of cultural transmission, become integrated into the consciousness of a whole community. With language, as with medicine, or religion, what began as a set of specialist's distinctions can become part of the intellectual equipment of Everyman.
>
> The metalinguistic terminology a language provides or does not provide, its resources or lack of resources for talk about language, reflects differences—sometimes subtle and sometimes quite obvious—between the ways in which different cultures treat language-using as a form of behaviour. (Harris, 1980, pp. 19–21)

Thus, from this lengthy quotation, we can anticipate that whatever grammaticality may mean to one individual, there is no guarantee that it means the same thing to another individual. For example, one speaker might not, when asked whether a certain expression is grammatical, distinguish grammaticality from meaningfulness, say, and reply accordingly; but another (trained in generative linguistics) might reply with some quite definite formal definition of grammaticality in mind; still another might not understand what is being asked of them because there may be no such metalinguistic category for them. The linguist may, in the last case, be tempted to instruct the informant as to what he means by 'grammaticality'; but here the shoe is on the other foot: the linguist becomes the informant and the original informant becomes a player in a game of attempting to map a newly learned metalinguistic distinction, a definition of grammaticality, onto the expressions of his language.

It is probably correct to say that speakers of any language have notions about what uses of their language are 'appropriate', in some sense or other. But Harris notes,

> ... it is quite unclear what it means to say that native speakers have 'intuitions' of grammaticality, unless these intuitions can be distinguished from, for example, semantic intuitions, stylistic intuitions, or any other kinds of intuitions about what it is appropriate to say and in what circumstances. (Harris, 1981, p. 76)

Harris cites several examples of cultures that appear to have very different conceptions of linguistic appropriateness as manifested in language training and language use. For example, he says,

> The deliberate and regular inculcation of preferred forms of speech seems to arise usually in response to particular social conditions. Preservation of a culture in the face of threatened extinction or absorption is one such motivation. This may give rise even in illiterate communities to the public allocation of linguistic 'guardianship' to particular individuals, or the recognition of certain language-teaching duties as a social responsibility. (An example of the former would be the institution of language 'monitors' among the Torres Strait Islanders[2]. An example of the latter would be the Blackfoot Indian custom of daily language lessons given by mothers to their male children during the winter months[3]). (Harris, 1987b, p. 107)

Harris cites W.J. Samarin as reporting that, '... among the Gbeya of Central Africa parents rarely if ever correct the speech of their children, and the only concept they have of the difference between good and bad speech is that bad speech is what causes trouble between people' (Harris, 1987b, p. 108). Similarly, Peter Mühlhäusler reports on the linguistic tolerance of Tok Pisin of New Guinea. He says,

[2]Harris cites the following source: L.G. Cromwell, 'Bar kar mir. To Talk with No Curves: Important Speaking Among Mainland Torres Strait Islanders', *Anthropological Forum* 5, 1980–82.

[3]Harris cites the following source: Chief Buffalo Child Long Lance, *Long Lance*, Alberta 1928, p. 5.

> Whilst it is often assumed that one's own variety of Tok Pisin is the best or purest, other varieties are not looked down upon or called bad, unless they are bordering on the unintelligible. (Mühlhäusler, 1982, p. 114)

From the above discussion of the diversity and difference among speakers of the languages of the world, it should be apparent that the 'grammaticality' judgments of native speakers are bound to be less reliable than the linguistic scientist requires. These facts appear to, at the very least, draw the quality of the 'empirical basis' of Chomsky's theory of language into question.

A closely related matter concerns Chomsky's assertion that without an abstract formalisation of the language faculty and particular languages, '... brain scientists do not know what they are searching for; their inquiry is in this respect blind' (Chomsky, 1988, p. 6). Besides being insulting to working neuroscientists who are investigating language, there is utterly no necessary priority of abstract formalisations over getting the hands dirty in the physical world with research into brains and behaviour. Indeed, it seems highly bizarre that a researcher who is interested in determining the properties of physical phenomena associated with language, as Chomsky claims to be, should opt for unreliable and highly subjective grammaticality judgments as an empirical basis for inquiry (as pointed out, for example, by Kuester, 1985, p. 164), rather than the physical phenomena themselves, such as brains and their anatomy, chemistry, and physiology, and the behaviour associated with language. Neuroscientists can and *are*, with very rapidly developing methods and technologies, discovering patterns of neural connexion and development within specific areas of the brain that are correlated with language behaviour and abilities of various kinds[4]. The mathematical modelling of this kind of work is also carrying

[4]Sources like, Arbib, Caplan, and Marshall, eds., 1982, and Galaburda, 1993, for example, make this clear.

on in a parallel fashion, in close conjunction with the kind of empirical work just mentioned[5]. Thus there is no *a priori* reason to believe that an abstract formalisation of language has a necessary priority over actually investigating direct observables such as brains and behaviour; indeed, there seem to be very good empirical reasons to see the priority as being the reverse: brains and behaviour before abstract formalisation.

It may be well at this point to reiterate just how Chomsky and Harris each understand the connexion of the brain to language. This seems to be one of the few points of agreement between Chomsky and Harris: that brains are causally involved to some extent or other in the language faculty. The way in which they each conceive of this causal neural involvement differs profoundly, however.

Clearly Chomsky's view is that his abstract talk about mind and mental faculties (such as language) will in fact reduce to talk about neurophysiological states and processes. He says,

> The brain, like any other system of the natural world, can be studied at various levels of abstraction from mechanisms: for example, in terms of neural nets or computational systems of rules and representations. At each such level of inquiry, we construct certain abstract objects and seek to determine their properties and the principles they satisfy.... we... hope to discover how these abstract entities are realised in physical mechanisms of a more "fundamental" nature and how the principles can be grounded in this way. (Chomsky, 1991a, p. 5)

And again:

> ... we believe that there are physical structures of the brain which are the basis for the computations and the representations that we describe in an abstract way. (Chomsky, 1988, p. 185)

[5] An example of this kind of work, not language related, would be Skarda and Freeman's use of chaos-theoretic mathematics to model the neurological processes in the olfactory bulb in, C.A. Skarda and W.J. Freeman, 'How Brains Make Chaos in Order to Make Sense of the World', *Behavioural and Brain Sciences* 10, 1987, pp. 161–96.

Harris, too, sees neurophysiological research into linguistic abilities as useful. Recall that Harris makes quite clear the distinction between linguistic ignorance and language deficiency. In his brief discussion of the case of Genie in *The Language Myth*, he notes that through neuropsychological testing, it was determined that the degree of linguistic capacity that Genie gained after years of effort seemed to be localised in the right cerebral hemisphere—instead of the usual left lateralisation. Harris suggested that the case of Genie (and the 'wild boy of Aveyron') pointed out that '...our understanding of the biology of language is still in its infancy....Evidently...there are different types of language deficiency, which have yet to be accurately identified from a medical point of view' (Harris, 1981, p. 6).

I think that this is one area where Harris and Chomsky show some agreement: in the usefulness of neurophysiological accounts of language behaviour: there is no doubt that both Chomsky and Harris would agree that medical—including neurophysiological—research into the mysteries of language deficiency would yield useful insights, both for the understanding of these deficits and for their care and treatment.

However, this agreement is minimised by their respective expectations about what the medical researchers would find: presumably Chomsky would expect accounts of language deficits in terms of the neurophysiological correlates of universal grammar, principles, rules, parameters, sentences, nouns, and verbs; Harris, on the other hand, would surely expect nothing more than correlations between various kinds of medical or physiological conditions—lesions here, unusual neural activity there, peculiar metabolism here, concentrations of specific neurotransmitters there, etc.—and abilities (deficient or otherwise) to participate in conventional and creative linguistic behaviour of specified

sorts. The difference here is that Chomsky believes that the language faculty is a discrete part of the brain, leading an independent life both from the person, the social entity, who embodies that brain, and from other cognitive (and non-cognitive) aspects of the person; Harris sees the language faculty as manifest in the social being interacting with the world. Harris says, for example, '...it is the decision to utter particular words at a particular time in a particular context and do so appropriately which is the hallmark of human linguistic ability. And this requires situational judgments, communicative intentions, and self-awareness—all of which are properties of the human being, not the human brain' (Harris, 1987c, p. 510).

There is no doubt here that Chomsky sees neurophysiology as being fundamental to *explanation* of human language capacity; and that his formal abstract characterisation of the language faculty will reduce to a characterisation in terms of neural mechanisms. Indeed, it is the discovery of universal grammar (and its anticipated reduction to neural terms) that Chomsky claims has *explanatory* (rather than merely *descriptive*) force. For example, he states,

> The task of answering question 1 [viz. what do we know when we are able to speak and understand a language?] is basically descriptive: in pursuing it, we attempt to construct a grammar, a theory of a particular language that describes how this language assigns specific mental representations to each linguistic expression, determining its form and meaning. The second and much harder task carries us beyond, to the level of genuine explanation. In pursuing it, we attempt to construct a theory of universal grammar, a theory of the fixed and invariant principles that constitute the human language faculty and the parameters of variation associated with them. We can then, in effect, deduce particular languages by setting the parameters in one way or another. Furthermore, given the lexicon, which also satisfies the principles of universal grammar, and with the parameters set in a particular way, we can explain why the sentences of these languages have the form and meaning they do by deriving their structured representations from the principles

of universal grammar. (Chomsky, 1988, pp. 133–4)

What Chomsky takes a 'genuine explanation' to be is never made clear; nor are the criteria for recognising one. Explanation has always been a controversial topic in the philosophy of science; and its definition and criteria for distinguishing good explanations from bad ones is still, for those who worry about it (and not many *scientists* seem to), one of the conundrums of scientific metatheory.[6] However, it is clear that he focuses on brains for ultimate understanding of language.

Harris, on the other hand, says very little about explanation as a goal of his integrational linguistics; but he clearly sees that the understanding of linguistic phenomena is not limited to analysis on the biomechanical scale. Indeed, throughout his work, his emphasis has been much more on the macrosocial and integrative dimensions of his linguistics programme. However, it may well turn out that neuroscientists eventually discover, in micro-detail, neural correlates of specific kinds of language phenomena; it may be that they succeed in mathematically modelling that micro-detail. All of this would be compatible with Harris' integrational linguistics. Integrational linguistics, on Harris' view, would be inherently interdisciplinary; there are many different ways of analysing linguistic communicative behaviour, and Harris acknowledges that the biomechanical, which certainly includes neuroscientific study, is a major avenue of analysis. What Harris appears to doubt is that the biomechanical correlates to linguistic communicative behaviour will have anything like the properties that Chomsky asserts are definitive of language. There *is* no reason at all to assume *a priori* that the biomechanical analysis of language will have anything resembling the character of Chomsky's principles and parame-

[6]See Wesley Salmon, 1990, for an interesting recent discussion; and John Losee, 1993, for a very good historical discussion of 'explanation' and related scientific notions.

ters theory. These matters will, of course, be decided by empirical research; but, in Harris' view, Chomsky's methodology puts the cart of theory before the horse of empirical study—and it is no surprise that after thirty years of Chomsky's programme, and two millenia of the conceptions of language that underlie it, the cart has not moved terribly far forward.

As suggested above, it is logically possible that the principles and parameters theory, or something very much like it in form, could eventually be mapped onto some of whatever neuroscientists find; but it is not *a priori* necessary, nor is Chomsky's way of arriving at it methodologically consistent with empirical science. Similarly, Chomsky's adoption of the grammatical categories of traditional grammar are not necessary *a priori*, nor are they empirically motivated; but empirical studies may nonetheless provide motivation for their adoption, or the adoption of something like them. For example, Hill and Arbib have developed a computational model of language acquisition in which word classes are not assumed to be innately given. They say,

> Most analysts of language agree that there must be some partitioning of words into word classes in order for the structure of language to be described. Traditionally, in English, there are thought to be eight syntactic parts of speech (more or less) which certainly includes noun, adjective, and verb. Yet as detailed linguistic analysis of language proceeds, each of these partitions must be subdivided many times again. We have common nouns, proper nouns, count nouns, mass nouns; transitive verbs, intransitive verbs, and an enormous variety of subcategorisations of verbs, just to name a few of the classifications necessary to explain the structure of adult language. The correct partitioning is, of course, an unresolved question, and very much depends on the correct analysis of language, which is an even larger unsolved problem. It may also, to some extent, differ from individual to individual. (J.C. Hill and M.A. Arbib, 1984, p. 288)

They claim that on their data, they find evidence that specific types of word classes are *not* innate. In their model,

> ...rather, we posit a classification process which we call ' classification through word use' (CWU). The CWU process causes the model to posit a multitude of intersecting classes. The classes themselves may be quite different for different children in the course of development, depending on the child's language experience. We may run the model with a given set of input data and examine the words that are classed together and make guesses as to how these classes might be identified with some adult classification scheme, and we may guess that eventually, given sufficient linguistic and conceptual growth, these classes may evolve into those which adults are thought to use; but we cannot predict the exact course for arriving at this. (J.C. Hill and M.A. Arbib, 1984, p. 288)

In Hill and Arbib's model[7], word classes are constructed along with conceptual development and linguistic experience; this work *may* provide *empirically motivated* reasons for positing word classes like those of traditional grammar that Chomsky simply assumes. But this is not necessarily the way the results will turn out—it is entirely an empirical matter. Though Harris himself may not agree with all of the assumptions made by Hill and Arbib in their work, this is definitely the kind of empirical study that is consistent with his integrational linguistics.

The conclusion that I draw from these considerations is that the kind of results that issue from Chomsky's work, viz. the principles and parameters theory, may be perfectly compatible with Harris' integrational linguistics. But the means and methods, and the set of assumptions underlying them, are, indeed, based in the mythological view of language that Harris condemns. Thus the answer to the question of whether Chomsky's kind of linguistics would marry well with Harris' integrational programme is a highly qualified 'yes'.

[7]Hill and Arbib's interesting work on language is further discussed in: Arbib, 1985; Arbib and Hill, 1987; and Arbib, Conklin, and Hill, 1988.

4.4 Summary

In this chapter, I have tried to assess the form and the extent of the tension between two linguists, Noam Chomsky and Roy Harris, who have, for the most part, radically diverging concepts of language and views about how language and linguistic communication ought to be approached for the purpose of scientific study. I began by showing to what extent Chomsky's principles and parameters theory fits Harris' description of the language myth; and demonstrated the definite presence in Chomsky's theory of the twin doctrines of the language myth: telementation and determinacy.

I concisely reiterated both Chomsky's concept of language and Harris'; and suggested that, in spite of very deep differences in detail, they have surprising superficial similarities: specifically, they both acknowledge that there are social and physical dimensions to language phenomena. I asserted that the root of the tension between Chomsky's views and Harris' could be exposed by considering two questions: one question having to do with the extent to which Chomsky would accept Harris' conception of the macrosocial and integrative scales on which to study the generally social dimension of language; the other question having to do with the extent to which Harris would be willing to accept Chomsky's principles and parameters account of the physical dimension of language. I argued that the answer to the first question would be a fairly definite 'no'; and the answer to the second question would be a strongly qualified 'yes'.

Chomsky would definitely not consider Harris' conception of the macrosocial and integrative dimensions of language to be at all useful or interesting. For although he asserts that inquiry into the social, political, etc., aspects of language phenomena could be legitimate and not in conflict with his primary

study of the language faculty and I-language, Chomsky intransigently rejects the kind of analysis that Harris advocates on the grounds that the notions involved are not 'clear enough'. Thus, on the assumptions that Chomsky makes, their respective conceptions of the physical and social dimensions of language are too far apart for Chomsky to accept Harris' views.

I argued that Harris, on the other hand, in a highly qualified way, ought to be open to something like Chomsky's principles and parameters formalism, although he, rightly, rejects the methodological assumptions and interpretations on which he bases his particular formal theory. Harris ought to accept that *kind* of formalism because he appears to accept the kind of empirical studies that neuroscientists do as being consistent with his conception of the biomechanical dimension of language—and generally a part of those neuroscientific studies includes abstract mathematical modelling. I discussed, however, Harris' well-reasoned rejection of the foundational assumptions on which Chomsky conceives of and constructs his particular formalism. I outlined the multiple problems, rooted in the language myth, that Harris finds in Chomsky's conception—including the assumed degree of absolute systematicity in language, the decontextualisation of language, the adoption of the descriptive apparatus of traditional grammar of modern metamathematics, the alleged priority of constructing abstract formalisms over truly empirical studies, and the questionable empirical basis of grammaticality judgments of native speakers. Interestingly, I noted also that the telementational aspect of the language myth, although present in a form in Chomsky's theory, does not contribute, to any appreciable degree, to the rejection of Chomsky's views for Harris' integrational programme.

Chapter 5
Conclusion

In his editorial preface to anthology of papers on the pragmatics of human communication, Colin Cherry wrote,

> 'Human communication' is a field of interest of enormous breadth, being one which has concerned students of many different disciplines. It spans the imagined 'gap' between the 'arts' and the 'sciences', but it forms no unified academic subject. There is no commonly accepted terminology to cover all aspects. (Cherry, 1974, p. vii)

What Cherry says about 'human communication' also goes for that significant subset of it: linguistic communication. Language phenomena and the ways that those phenomena have been meaningfully talked about *do* span an 'enormous breadth'. That enormous breadth encompasses a diversity of disciplines, including: literary criticism; conceptual analysis in the forms of philosophical logic, the philosophy of language, and the philosophy of science; psychology; anthropology; medicine; the study of politics and national (and ethnic) identity and relations; and much more. And in spite of the fact that there *is* an autonomous academic discipline nominally called 'linguistics', its fairly narrowly circumscribed assumptions about and interests in language—generally those of the language myth that Harris describes—hardly scratch the surface of that enormous breadth.

Having seen this, an important observation can be made. The kind of concept of language that Chomsky holds, *extremely* narrow as it is, is also extremely rare: he and his followers are a very small minority in contrast to

the vastly diverse ways that humans having engaged in meaningful discourse about language. His view comes off as appearing to make language seem emaciated almost beyond recognition. And yet there is something right about it. What seems to be right about it is his attempt to find as systematic as possible a relation between language and the brain, using formal models. Many of the assumptions that he operates under, however, as Harris has shown, are questionable, and—for the project just mentioned, I think—unnecessary. Thus, since much of modern linguistics is based on many of the same (or similar) assumptions, it stands to reason that, perhaps, the time is ripe, in the discipline of linguistics, for reevaluation of its foundations. This is exactly the view that Roy Harris advocates; he believes that linguistics needs to be 'redefined'.

And, over the years, he has promoted an alternative view of linguistics, which seems to be broad enough in conception to be capable of encompassing, to the extent that full encompassing is possible, that 'enormous breadth'—including the kinds of empirical studies of language that interested neuroscientists are involved in. Thus in Harris' integrational linguistics, under the broad classifications of the macrosocial, biomechanical, and integrative scales of investigation, linguists (broadly speaking) can meaningfully research the dimensions of linguistic phenomena that Chomsky narrowly focuses on, as well as the other widespread and meaningful dimensions of linguistic phenomena—in fact, the entire range of communicational phenomena; thus putting much of the flesh back onto that emaciated figure that Chomsky created. Harris' integrational linguistics is an attempt to pioneer this reevaluation.

To most academic linguists, I think, it would likely seem a controversial and dubious statement to assert that Roy Harris is as much a pioneer in lin-

guistics as Noam Chomsky. However, I am inclined to make that assertion, anyway; and not because I believe that Roy Harris is all right and Noam Chomsky is all wrong. I believe neither. Many in the mainstream, who will not even be familiar with Roy Harris and would, of course, be familiar with Chomsky's work, would see no comparison at all since the one is unheard of and a large segment of the academic discipline of linguistics has grown up around the other. Many others, who may have, in fact, heard of or even read Harris, would doubtless disagree that his work may have a pioneering quality equal to that of Chomsky; and for many conceivable reasons: Harris is a figure of minor prominence in the discipline whereas Chomsky is perhaps the most prominent figure the discipline has ever seen; Harris' work, much of it critical of the discipline itself, might appear to be genuinely threatening to some; researchers may be just too involved with their research directions to concern themselves with critical reappraisal of what they are doing; blind or visioned faith in generative linguistics may peremptorily discount many of the assumptions of Harris' critical views. Many other considerations, of course, are possible; these are just ones that seem to have a particularly Harrisian flavour, highly sociological, involving human beings in the context of their lives and culture. Certainly, if the shear number of followers or sympathisers is considered to be the vital criterion, then Chomsky is obviously the greater pioneer because a main difference between them is that far fewer linguists in Anglo-American academia have ridden with Harris' wagon train into the wilderness of linguistic inquiry (or are even aware of it!) than have ridden with Chomsky's. Of course, Chomsky had about a twenty year head-start over Harris and appeared at a time that was ripe for a change from the ideological currents of behaviourism, structuralism, and distributionalism; whereas Harris' work

in general linguistics came on the scene at a time when, and partly because, generative linguistics was the most well-entrenched paradigm of linguistic research (during the late seventies), and in full swing. However, I am inclined not to make the hasty judgement in favour of Chomsky, based only on the three-decade old prominence of generative linguistics; because different pioneers explore different lands (or the same lands, for that matter), and explore them in different ways and with different tools. This, I think, is important to consider in contrasting Harris and Chomsky. The assumptions implicit in Chomsky's approach to the study of language have a long history, falling in line with the millenia-old mainstream of 'segregational' linguistic thinking, as Harris calls it; and the aims, methods, and tools that he uses range from the ancient to the very modern: e.g. analytical categories like noun and verb from the early Greco-Roman grammarians, rationalism and innateness from Plato through Descartes, generativity from Humboldt, and mathematical descriptive devices from modern meta-mathematicians and logicians like Frege and Post. Chomsky's pioneering genius has consisted in drawing together much from past and present to develop a thriving framework—generative linguistics—in which the study of language in an academic setting has continuously developed since the late fifties. Roy Harris' approach to the study of language, on the other hand, has consisted largely (though not only) of historical and sociological scrutiny of the discipline of modern linguistics and its foundations in, and development throughout, Western history. He provides an historical understanding of how and why linguistics has become what it has, steeped as it is—as any human endeavor is—in the intentions, aspirations, institutions, and activities of human beings and human life. In addition, given this historical understanding, he points out how narrowly circumscribed interests have,

at various times and in various ways, directed conceptions of language and its study. Through discovering the historical and social underpinnings of conceptions of language and linguistic inquiry in Western thought, much of the point of Harris' approach is aimed at showing where those conceptions make sense and where they do not. Although, on the surface, Harris' approach might appear to be wholly negative, critical of his colleagues' work and the foundations underlying it, there is a positive contribution to be found, as well—and his critical work should not be allowed to overshadow this positive contribution. Harris does provide the outlines of a conception of language and linguistic investigation that, in his view, does make sense. Roy Harris' pioneering genius is not found in legions of followers, nor in the synthesizing of many different strands of Western thought about language and the nature of humanity into a thriving academic research program (as has Chomsky's); Harris' pioneering genius, if that attribution is accepted, is (or will likely in the future be) in seeing that the time is ripe in linguistics for reflection and reevaluation, for looking at where the discipline of linguistics is and how it has gotten there, for discerning where we have made sense and where we have gone astray: in short, for stepping back to see the wood instead of the trees. And Harris brings novelty of observation and broad scholarship to bear on this task. Roy Harris' pioneering is, paradoxically, in his reexploration of lands so familiar that we have forgotten whence we came. And in his reexploration, Harris notes, often with acerbic emphasis, where he thinks that linguistic investigation has gone wrong and why.

The pioneering reevaluation is Harris programme of integrational linguistics:

> . . . an integrational linguistics will focus on typically different questions from those which have preoccupied and still preoccupy the or-

> thodox linguist. Investigations which are at most of marginal interest within the framework of linguistic orthodoxy become central. Whereas the attempt to give a mathematically precise formulation to rules of grammar can tell us nothing about how most people construct and articulate their own linguistic experience, we may on the contrary learn a great deal about this by asking what everyday metalinguistic vocabulary they use. Grammatical formalisations reveal more about the grammarian than about the language that the grammarian claims to be formalising. Even the pursuit of abstract linguistic universals will teach us less about the human mind than studying how, in specific situations, human beings combine verbal and non-verbal devices. The number of parts of speech a language has (however a linguist decides to count them) cannot be more important than distinguishing the different integrational functions that different types of words fulfill in discourse. In short, the strategies and assumptions people bring to bear on the communicational tasks of daily activity, tasks they are obliged to deal with by whatever means they can, are all an integrational linguistics needs to study in order to advance our understanding of what language is and the part it plays in our lives.
>
> An integrational approach thus makes possible a thoroughgoing demythologisation of linguistics. The first step in the demythologisation process is simply to convince linguists that no disasterous consequences ensue from abandoning the hallowed assumptions of orthodox linguistic theory. (Harris, 1990e, pp. 50–1)

Not all linguists may accept some of Harris' own assumptions or emphases, but there is no doubt that his kind of reevaluation of linguistics—of the conception of language that underpins most of current linguistic orthodoxy—is needed.

Bibliography

Anderson, Stephan. 1985. *Phonology in the Twentieth Century: Theories of Rules and Theories of Representations.* Chicago: University of Chicago Press.

Arbib, Michael A. 1985. *In Search of the Person: Philosophical Explorations in Cognitive Science.* Amherst: University of Massachusetts Press.

Arbib, Michael A., David Caplan, and John C. Marshall, ed. 1982. *Neural Models of Language Processes.* New York: Academic Press.

Arbib, Michael A., E. Jeffery Conklin, and Jane C. Hill. 1987. *From Schema Theory to Language.* Oxford: Oxford University Press.

Arbib, Michael A. and Jane C. Hill. 1988. 'Language Acquisition: Schemas Replace Universal Grammar'. In ed. John A. Hawkins, 1988, 56–72.

Aristotle. *c.* 4th cent. B.C. *The Basic Writings of Aristotle.* Translated by Richard McKeon. 1941. New York: Random House.

Arnauld, Antoine and Claude Lancelot. 1660. *Grammaire générale et raisonée.* Translated as *General and Rational Grammar: The Port-Royal Grammar* by Jacques Rieux and Bernard E. Rollin. 1975. The Hague: Mouton.

Baker, G.P. and P.M.S. Hacker. 1984. *Language, Sense and Nonsense.* Oxford: Basil Blackwell.

Blackburn, Simon. 1984. *Spreading the Word: Groundings in the Philosophy of Language.* Oxford: Clarendon Press.

Bloomfield, Leonard. 1933. *Language.* New York: Holt.

Boden, Margaret A. 1991. *The Creative Mind: Myths and Mechanisms* New York: Basic Books.

Borsley, Robert D. 1990 'Review of Nigel Love, ed., *Foundations of Linguistic Theory: Selected Writings of Roy Harris*'. *Journal of Linguistics* **27**, 289–91.

Cherry, Colin, ed. 1974. *Pragmatic Aspects of Human Communication.* Dordrecht: D. Reidel.

Chomsky, Noam. 1957. *Syntactic Structures.* The Hague: Mouton.

_____. 1959. 'A Review of B.F. Skinner's *Verbal Behaviour*'. *Language* **35**. 26–58.

_____. 1965. *Aspects of the Theory of Syntax.* Cambridge, MA: M.I.T. Press.

_____. 1966. *Cartesian Linguistics.* New York: Harper and Row.

_____. 1968. *Language and Mind.* New York: Harcourt Brace Jovanovich.

_____. 1969. 'Some Empirical Assumptions in Modern Philosophy of Language'. In *Philosophy, Science, and Method: Essays in Honour of Ernest Nagel*, ed. Sidney Morgenbesser, Patrick Suppes, and Morton White, 260–85. New York: St. Martin's Press.

_____. 1970. Problems of Explanation in Linguistics. In *Explanation in the Behavioural Sciences*, ed. Robert Borger and Frank Cioffi, 425–51. Cambridge: Cambridge University Press.

_____. 1971. 'Topics in the Theory of Generative Grammar'. In *The Philosophy of Language*, ed. John Searle, 71–100. Oxford: Oxford University Press.

_____. 1975a. *Reflections on Language.* New York: Pantheon Books.

_____. 1975b. 'Quine's Empirical Assumptions'. In *Words and Objections: Essays on the Work of W.V. Quine*, rev. ed., ed. Donald Davidson and Jaakko Hintikka, 58–68. Dordrecht: D. Reidel.

_____. 1978. 'A Theory of Core Grammar'. *Glot* **1**, 7–26.

_____. 1980. *Rules and Representations.* New York: Columbia University Press.

_____. 1981. 'Principles and Parameters in Syntactic Theory'. In *Explanation in Linguistics*, ed. Norbert Hornstein and David Lightfoot, 1981, 32–75. London: Longman.

_____. 1986. *Knowledge of Language: Its Nature, Origin, and Use.* New York: Praeger.

_____. 1988. *Language and Problems of Knowledge: The Managua Lectures.* Cambridge, MA: M.I.T. Press.

_____. 1990. 'On the Nature, Use, and Acquisition of Language'. In *Mind and Cognition: A Reader*, ed. William Lycan, 627–46. Oxford: Basil Blackwell.

_____. 1991a. 'Linguistics and Adjacent Fields: A Personal View'. In ed. Asa Kasher, 1991, 3–25.

_____. 1991b. 'Linguistics and Cognitive Science: Problems and Mysteries'. In ed. Asa Kasher, 1991, 26–53.

Chomsky, Noam and Jerrold Katz. 1980. 'What the Linguist is Talking About'. In *Readings in the Philosophy of Psychology*, ed. Ned Block, vol. 2, 223–37. Cambridge, MA: Harvard University Press.

Davis, Hayley G., and Talbot J. Taylor, eds. 1990. *Redefining Linguistics.* London: Routledge.

Descartes, René. 1637–44. *Descartes: A Discourse on Method, Meditations and Principles*, tr. John Vietch, 1912, London: J.M. Dent and Sons (Everyman's Library).

Diringer, David. 1962. *Writing.* London: Thames and Hudson.

Feyerabend, Paul K. 1975. *Against Method: Outline of an Anarchistic Theory of Knowledge.* London: Verso.

Fodor, Jerry A. 1980. 'Some Notes on What Linguistics is About'. In *Readings in the Philosophy of Psychology*, ed. Ned Block, vol. 2, 197–207. Cambridge, MA: Harvard University Press.

Fromkin, Victoria, Stephen Krashen, Susan Curtiss, David Rigler, and Marilyn Rigler. 1974. 'The Development of Language in Genie: A Case of Language Acquisition Beyond the "Critical Period" '. *Brain and Language* 1, 81–107.

Galaburda, Albert. 1993. 'Biological Basis of Language'. Paper presented at the Conference on the Biological Basis of Language, February, 1993, Cognitive Science Programme, Simon Fraser University.

Gazdar, Gerald, Ewan Klein, Geoffrey Pullam, and Ivan Sag. 1985. *Generalized Phrase Structure Grammar.* Cambridge, MA: Harvard University Press.

Gelb, Ignace. 1963. *A Study of Writing.* 2nd ed. Chicago: University of Chicago Press.

George, Alexander. 1986. 'Whence and Whither the Debate Between Quine and Chomsky?'. *Journal of Philosophy* **83**, 489–99.

Hacker, Peter 1987. 'Languages, Minds and Brains'. In *Mindwaves: Thoughts on Intelligence, Identity, and Consciousness*, ed. Colin Blakemore and Susan Greenfield, 485–505. Oxford: Basil Blackwell.

Harris, Roy. 1977. 'On the Possibility of Linguistic Change'. Inaugural lecture delivered at the University of Oxford on 18 November 1976. Oxford: Clarendon Press.

_____. 1978a. 'Word Wars: On Thought and Language'. *Encounter* **L**, March, 42–9.

_____. 1978b. 'Communication and Language'. Inaugural lecture delivered at the University of Oxford on 24 February 1978. Oxford: Clarendon Press.

_____. 1980. *The Language Makers.* London: Duckworth.

_____. 1981. *The Language Myth.* London: Duckworth.

_____. 1983. 'Theoretical Ideas'. *Times Literary Supplement*, 14 October, 1119.

_____. 1986. *The Origin of Writing.* London: Duckworth.

_____. 1987a. *Reading Saussure.* London: Duckworth.

_____. 1987b. *The Language Machine.* London: Duckworth.

_____. 1987c. 'The Grammar in Your Head'. In *Mindwaves: Thoughts on Intelligence, Identity, and Consciousness*, ed. Colin Blakemore and Susan Greenfield, 1987, 507–16. Oxford: Basil Blackwell.

_____. 1988a. *Language, Saussure and Wittgenstein.* London: Routledge.

_____. ed. 1988b. *Linguistic Thought in England 1914–1945.* London: Routledge.

_____. 1989. 'Who Will Translate the Translators?: From Homer to Derrida'. *Encounter* **LXXII**, February, 68–73.

_____. 1990a. 'Making Sense of Communicative Competence'. In *The Foundations of Linguistic Theory: Selected Writings of Roy Harris*, ed. Nigel Love, 1990, 112–35. London: Routledge.

_____. 1990b. 'Must Monkeys Mean?'. In *The Foundations of Linguistic Theory: Selected Writings of Roy Harris*, ed. Nigel Love, 1990, 158–79. London: Routledge.

_____. 1990c. 'Freedom of Speech'. In *Ideologies of Language*, ed. John E. Joseph and Talbot J. Taylor, 1990, 153–61. London: Routledge.

_____. 1990d. 'Language As Social Interaction: Integrationalism Versus Segregationalism'. In *The Foundations of Linguistic Theory: Selected Writings of Roy Harris*, ed. Nigel Love, 1990, 197–209. London: Routledge.

_____. 1990e. 'On Redefining Linguistics' In *Redefining Linguistics*, ed. Hayley G. Davis and Talbot J. Taylor, 1990, 197–209. London: Routledge.

Harris, Roy and Talbot J. Taylor. 1989. *Landmarks in Linguistic Thought: The Western Tradition from Socrates to Saussure.* London: Routledge.

Hawkins, John A., ed. 1988. *Explaining Language Universals.* Oxford: Basil Blackwell.

Hempel, Carl G. 1966. *Philosophy of Natural Science.* Englewood Cliffs, N.J.: Prentice-Hall, Inc.

Hesse, Mary. 1980. *Revolutions and Reconstructions in the Philosophy of Science.* Bloomington and London: Indiana University Press.

Hill, Jane C. and Michael A. Arbib. 1984. 'Schemas, Computation, and Language Acquisition'. *Human Development* **27**. 282–96.

Kasher, Asa, ed. 1991. *The Chomskyan Turn.* Oxford: Basil Blackwell.

Katz, Jerrold, ed. 1985. *The Philosophy of Linguistics.* Oxford: Oxford University Press.

Koerner, Konrad. 1983. 'The Chomskyan "Revolution" and Its Historiography: A Few Critical Remarks'. *Language and Communication* **3**, 147–69.

Kretzmann, Norman. 1967. 'History of Semantics'. In *The Encyclopedia of Philosophy*, ed. Paul Edwards, vol. 7, 358–406. New York: MacMillan Publishing Co. and The Free Press.

Kuester, Harold H. 1985. 'Chomsky on Grammar and Mind: A Critique'. *International Philosophical Quarterly* **XXV**, 157–72.

Kuhn, Thomas S. 1959. 'The Essential Tension: Tradition and Innovation in Scientific Research'. In *The Essential Tension: Selected Studies in Scientific Tradition and Change*, Thomas S. Kuhn, 1977, 225–39. Chicago: University of Chicago Press.

_____. 1962. *The Structure of Scientific Revolutions.* Chicago: University of Chicago Press.

Lane, Harlan L. 1976. *The Wild Boy of Aveyron.* Cambridge, MA: Harvard University Press.

Laudan, Larry. 1990. *Science and Relativism: Some Key Controversies in the Philosophy of Science.* Chicago: University of Chicago Press.

Locke, John. 1689. *Essay Concerning Human Understanding.* ed. P.H. Nidditch. 1975. Oxford: Oxford University Press.

Losee, John. 1993. *A Historical Introduction to the Philosophy of Science.* 3rd ed. Oxford: Oxford University Press.

Mühlhäusler, Peter. 1982. 'Language and Communicational Efficiency: The Case of Tok Pisin'. *Language and Communication* 2, 114.

Newmeyer, Frederick J. 1986. 'Has There Been a "Chomskyan Revolution" in Linguistics?'. *Language* **62**. 1–18.

Pateman, Trevor. 1987. *Language in Mind and Language in Society: Studies in Linguistic Reproduction.* Oxford: Clarendon Press.

Plato. *c.* 5th–4th cents. B.C. *The Collected Dialogues of Plato.* ed. Edith Hamilton and Huntington Cairns. 1961. Princeton: Princeton University Press.

Premack, David. 1976. *Intelligence in Ape and Man.* N.J.: Laerence Erlbaum Associates.

Putnam, Hilary. 1980a. 'The "Innateness Hypothesis" and Explanatory Models in Linguistics'. In *Readings in the Philosophy of Psychology*, ed. Ned Block, vol. 2, 292–99. Cambridge, MA: Harvard University Press.

Putnam, Hilary. 1980b. 'What Is Innate and Why'. In *Readings in the Philosophy of Psychology*, ed. Ned Block, vol. 2, 339–48. Cambridge, MA: Harvard University Press.

Quine, Willard van Orman. 1960. *Word and Object.* Cambridge, MA: M.I.T. Press.

———. 1975a. 'Methodological Reflections on Current Linguistic Theory', In *Semantics of Natural Language*, ed. Donald Davidson and Gilbert Harman, 442–54. Dordrecht: D. Reidel.

———. 1975b. 'Reply to Chomsky'. In *Words and Objections: Essays on the Work of W.V. Quine*, rev. ed., ed. Donald Davidson and Jaakko Hintikka, 302–11. Dordrecht: D. Reidel.

———. 1981. *Theories and Things.* Cambridge, MA: Belknap Press, Harvard University.

Reddy, Michael J. 1979. 'The Conduit Metaphor—A Case of Frame Conflict in Our Language About Language'. In ed. Andrew Ortony, *Metaphor and Thought*, 1979, Cambridge: Cambridge University Press.

Robins, R.H. 1979. *A Short History of Linguistics.* 2d ed. London: Longman.

Ruse, Michael. 1986. *Taking Darwin Seriously: A Naturalistic Approach to Philosophy.* Oxford: Basil Blackwell.

Salmon, Wesley. 1990. *Four Decades of Scientific Explanation.* Minnesota: University of Minnesota Press.

Saussure, Ferdinand de. 1916. *Cours de linguistique générale.* ed. C. Bally and A. Sechehaye. Translated as *Course in General Linguistics* by Roy Harris. 1983. La Salle: Open Court.

Slater, Catherine and Peter Wexler. 1986. 'Passing Sentence'. *Language and Communication* **6**, 181–88.

Taylor, Talbot J. 1986. 'Do You Understand? Criteria of Understanding in Verbal Interaction'. *Language and Communication* **6**, 171–80.

Terrace, Herbert. 1979. *Nim.* New York: Knopf.

Warhaft, Sidney. ed. 1965. *Francis Bacon:Selected Writings.* New York: Odessey Press.

Weinberg, Steven. 1976. 'The Forces of Nature'. *Bulletin of the American Academy of Arts and Sciences* **XXIX**, 13–29.

Wittgenstein, Ludwig. 1953. *Philosophische Untersuchungen.* ed. G.E.M. Anscombe and Rush Rhees. Translated as *Philosophical Invesigations* by G.E.M. Anscombe. 2d ed. 1958. Oxford: Basil Blackwell.

Vita

Surname: Williams

Given Names: Kenneth Evan

Place of Birth: Vancouver, British Columbia, Canada

Date of Birth: April 24, 1957

Educational Institutions Attended:

University of Victoria 1984 to 1993

Degrees Awarded:

B.A. (Honours)	University of Victoria	1988
M.A.	University of Victoria	1993

Honours and Awards:

Publications:

Partial Copyright License

I hereby grant the right to lend my thesis (or dissertation) to users of the University of Victoria Library, and to make single copies only for such users or in response to a request from the library of any other university, or similar institution, on its behalf or for one of its users. I further agree that permission for extensive copying of this thesis (or dissertation) for scholarly purposes may be granted by me or a member of the university designated by me. It is understood that copying or publication of this thesis (or dissertation) for financial gain shall not be allowed without my written permission.

Title of Thesis/Dissertation:

On A Certain Tension In Linguistics: Noam Chomsky and Roy Harris

Author: KENNETH EVAN WILLIAMS

signature

16 December 1993.

Date