

Linguistics and the Parts of the Mind

Linguistics and the Parts of the Mind:

*Or How to Build a Machine
Worth Talking To*

By

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Foreword by

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Or How to Build a Machine Worth Talking To

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EDITOR'S PREFACE

Following the publication of his celebrated *Fallacies* in 1970, Charles Hamblin completed the typescript for this book early in 1971 with light handwritten editing. It did not find a publisher then but material from its fourth chapter "Imperatives" was used in the full length book on the same subject completed just before he died in 1985. His *Imperatives* (Basil Blackwell) was published in 1987.

A considerable time after that the typescript for this book came to light and for a considerable time it seemed it may remain unpublished again. But no longer.

In this Preface I aim to indicate the scope of the book by giving a sense of some of its highlights and its overall direction and then acknowledge, with thanks, those who have contributed to its appearance now.

This remarkable book is an extraordinary achievement. The subtlety and breadth of Charles Hamblin's thought is on show throughout. His Foreword reveals he had been thinking about a theory of dialogue (dialectic) for at least two decades. The upshot is that this book is a major contribution to philosophy of language and despite his denying being a linguist it also makes a major contribution to pragmatics.

Attractively written in an easy conversational style, the book's central theme is *engaging in conversation*: what goes on as participants speak to each other. In particular, what general kinds of things may they say to each other and to what effect.

In his first chapter Charles Hamblin introduces the term *macrolinguistics* for the branch of linguistics that studies this process. As he says there "...in this book, I shall say almost nothing about sentence structure. I shall be concerned, instead, with what kinds of sentences there are, and with how they may be put together to make up larger pieces of discourse, particularly dialogue." And he argues there for the primacy of pragmatics over both semantics and syntactics in the study of language.

The first major section of the book, "Some Elementary Linguistics of a New Kind", instantiates this approach and consists of four chapters: two focused on indicatives followed by a chapter on imperatives and another on the language used to convey emotions and attitudes (emotives).

Charles Hamblin's key starting idea is that in order to be engaged in conversation participants need to be able to keep track of what has been said. He calls the memory devices needed to do this *commitment stores* (and sometimes *tallies*) and asks us not to confuse them with belief (or fact) stores. The former are the subject of Chapter 3 on *Commitment*.

In broad strokes, let's sketch what happens with indicatives. A typical use of indicatives is to impart information, to tell people things or make statements to ones conversational partners. Each of the participants is taken to have a belief (or "fact") store and an indicative commitment store. The latter, unlike the former, is public: it keeps a public tally of who has made what statements to whom during a conversation. In an indicative commitment store the contents will be statements a speaker has made or agreed to or acquiesced in. Questions may be asked to prompt statements and there is a macrolinguistic rule that questions be answered. One special kind of question, a Why-question, can be used to ask for a rationale of a statement: asking what reason there is to think it is true. If a conversational contribution can be questioned in this way it is said to be "accountable".

During a conversation, the contents of a commitment store (i.e. a tally) need not always increase. Statements may be withdrawn or retracted and a participant can issue a retraction demand to another to encourage this. All of the things participants can say are called locutions: e.g. indicatives, imperatives, emotives, questions, retractions and retraction demands.

A significant and to some, surprising, feature of engaged conversations is *hearer commitment*. Speakers' statements go into their own commitment stores and if those they are engaged with in conversation (hearers) do not object, into their commitment stores as well. Failure to object (perhaps by not saying "No, I'm not so sure about that.") gives consent. In other words, it will in general be presumed in the absence of demurring that hearers have agreed with what has been said.

So there are two stores related to this use of indicatives: a more permanent fact store and a much more transient public indicative commitment store that starts afresh, as do all the commitment stores, with each new conversation.

Analogous pairs of stores are proposed in Chapters 4 and 5 for imperatives and emotives: act and imperative commitment stores, and sentiment and emotive commitment stores respectively.

It is worth drawing attention to how much more comprehensive this framework is than the one used in *Fallacies*. In that work, there was only one kind of store: indicative commitment stores. Here we have six.

I want now to highlight just three instructive discussions made in this section of the book to give the flavour of what is achieved by our author and then comment on something significant woven through the text.

Very early in Chapter 2 *Question and Answer* he displays, in passing, a remarkable example of the macrolinguist's craft in discussing a line from the Pirates of Penzance, *Continue fine I hope it may*. He writes that it "does rather more than report an internal state of desire whose object is the prolongation of the absence of rain, but expresses a feeling in such a way that someone who agrees may be said to share the feeling and not merely appreciate that the speaker has it." In the context of a conversation someone might agree to this and he points out here one of the consequences of doing so.

In Chapter 3 on *Commitment* he says: "A curious shift of meaning sometimes takes place when a speaker makes a statement but refuses to provide a rationale for it. The statement changes from being the statement that such-and-such is true, to the statement that the speaker *thinks*, or *believes* it is true. Often enough the speaker will make this revision himself; and, if he does not, others will do it for him." The latter kind of statement has been called an *avowal* and has quite unusual properties. It sounds like a description of his mental state but it is stronger than this and commits him to such-and-such being true, yet it does not commit the hearer to this. It lacks hearer commitment to such-and-such being true and also accountability. So failure to provide a rationale when asked can have the effect of weakening the statement you are taken to have made.

In Chapter 5 *Emotions and Attitudes* when discussing the difference between an emotive locution (an example might be a human saying *Ow!* in a dentist's chair) and a natural cry, (say, the yelp of a dog whose tail has been stood on) after a nuanced discussion and dismissal of a number of differences, he writes "A natural cry, emotive or any other, may be the result of emotion in the being that cries, but cannot be said to commit that being to having the emotion. He or it is not regarded as under any dialectical pressures or obligations, cannot contradict himself or itself or be asked to provide a rationalisation *of the cry*, as distinct from being asked for its motive or cause. Hearers of the cry, though they may be emotionally affected by it, are not regarded as committed by it to any belief or action, and their failure to react will certainly not be regarded as recognition of or agreement with the emotive reaction. But in the case of a true locution all this is different. Your stylised cry of pain *Ow!* is intended to have me understand that you intend me to understand that you intend me to understand ... that you are in pain. It goes into your emotive commitment store, and something relevant goes into mine."

"This is, then, the difference between a natural cry and a locution: locutions commit, and natural cries do not. Locutions need to be tallied, and there are dialectical rules that take into account the tally."

Finally, an especially interesting feature of the book is the recurrent discussion of what would be needed to program a computer to participate in conversations. This addresses the book's subtitle: *How to Build a Machine Worth Talking To*. It does not get a chapter to itself but appears in most chapters. Alan Turing writing in 1950 made a famous 50 year prediction about how well machines would do in conversations with humans. Writing just 21 years later with 29 years to go Charles Hamblin held a contrary view. (See Chapter One)

Acknowledgements

First and foremost of the people to thank are Rita Hamblin, Charles's widow, who gave permission to offer this book for publication and Julie Hamblin, their daughter, who provided much appreciated encouragement, advice and support for the project as it proceeded.

Thanks also to Douglas Walton for his foreword.

And thanks to Cambridge Scholars Publishing's Victoria Carruthers, Theo Moxham, Sophie Edminson and Amanda Millar for their help in this venture.

Thank you, to the many people who helped convert Charles's edited typescript to the book you now have. These include David Kinloch for providing optical character recognition (OCR) and in roughly temporal order and helping mostly with word-processing: Alana Cerkesas, Chris Leaney, Laurence Rosier Staines, Shameer Sheik, Jason Chan, Sophia Rosier Staines and Amber Cross.

Joining in nearer the end, but with much to do, was Roxane McDonald, deserving a special thank you for her herculean efforts not only on word processing but giving the book further shape by compiling the Bibliography and the active Author and Subject indexes. Thanks as well to Gavin Gayle for putting us in touch.

And, finally, thanks to my wife Penny Rosier for her help with the editing and much else.

Historical Note: This book is true to the original typescript. This means that some passages contain gendered language more consistent with the time in which it was written than the date of eventual publication.

Phillip Staines

FOR THE EDITOR

In May 1985, my father died from a brain tumour at the age of 62. At that time, the ubiquity of computers today was barely imaginable, and the concept of artificial intelligence was unknown except among computer scientists. One of the many sadnesses of my father's premature death was that while he worked for decades on philosophy, computing and linguistics, and their relationship with each other, he did not live to see them come together as they have now done to shape the world. He would have been exhilarated by the advent of the internet, and the current explosion of artificial intelligence would have offered a whole new outlet for his decades of work on language and meaning.

The fact that this manuscript from the early 1970s is being published today, so many years after my father's death, is testament to the vision and tenacity of Phillip Staines, his former student who has gone on to become a successful academic in his own right. Following my father's death, Phillip agreed to become the custodian of his papers, and has performed this task of stewardship wisely and conscientiously over many years. It was Phillip who recognised that this manuscript, despite its age, has continuing value and relevance, possibly more than my father could have imagined when he wrote it. The notion of a machine worth talking to (which at the time reflected his quirky sense of humour as much as it did the actual concerns of computer programming) is now a reality of everyday life as we explore both the excitement and the limits of artificial intelligence.

My father would be grateful indeed to Phillip for having brought this manuscript back to life in the 21st century at a time when talking with machines is a central preoccupation of the modern world. Were he alive today, he would enjoy the conversation.

Julie Hamblin Sydney July 2017

WALTON'S FOREWORD

Charles L. Hamblin was Professor of Philosophy at the University of New South Wales until the time of his death in 1985. I do not personally know the circumstances that explain the delay of the publication of *Linguistics and the Parts of the Mind* for 47 years. I was struck, having read the unpublished manuscript for the first time in April 2017, how amazingly prescient it was. It not only anticipated current foundational developments in so many fields, but many of its ideas and arguments are still challenging and insightful today. Hamblin's writings have had a revolutionary impact on how we think about thinking, arguing and reasoning in multiple fields, most notably linguistics, philosophy, especially informal logic, computer science, and especially artificial intelligence. His thinking has affected these fields so fundamentally by shifting to a different paradigm of how humans and artificial agents can think more rationally and productively together when reasoning with each other in orderly dialogue give-and-take.

As Hamblin's ideas began and continue to be incorporated into many fields, especially technical fields such as computing, they came to be expressed in more complex and practical ways. For example, in multiagent computing and artificial intelligence, we now have many formal argumentation systems that model many of his ideas in technically sophisticated ways, and have even in many instances built them into implemented computational systems (Rahwan and Simari, 2009). Hamblin's formal models of dialogue in his book *Fallacies* (1970) and in his paper on formal dialogue systems (1971) show considerable subtlety, sophistication and technical skill in how they have been presented, but their novel technical aspects pose a barrier for the general reader. An important aspect of *Linguistics and the Parts of the Mind* is that these revolutionary ideas are explained in a disarmingly simple manner using commonplace examples.

Hamblin situates his main contribution nicely in chapter 1, in relation to the current state-of-the-art in philosophy and linguistics at the time of writing of this book around 1971. Both subjects at the time more narrowly focused on syntax and semantics and paid little attention to pragmatics. Hamblin took a breathtakingly forward-looking practical view of language study, holding that pragmatics is an area of it that the theorist

cannot postpone until work on syntax and semantics has made more progress. He looked at things in a different way, seeing pragmatics as being of the essence of language (p. 8). The clue to this different kind of orientation on the study of language, he writes (p. 16) in the introduction, is the observation "that language is "a give-and-take activity". It was this observation that led Hamblin to be primarily concerned with dialogue in his writings. He saw Alan Turing as being more realistic than many of the linguists of his time, because Turing realized that the most important problems of the study of language resided in how one might mechanize dialogue. This puts linguistics in a different light, both at that time and even to the present day, because it had concentrated on the solitary use of language, focusing on what he called monologue, a focus that ignores the pragmatic viewpoint.

One of the channels through which Hamblin's theory began to receive greater and greater attention was the book *Commitment in Dialogue* (Walton and Krabbe, 1995). A quick look at this book shows how much it owes to Hamblin, and how its formal argumentation system was built on the foundations laid by Hamblin. It was mainly through the influence of this book (especially on computer science) that Hamblin's ideas achieved their wider impact on artificial intelligence. As that book showed, Hamblin's seminal ideas reached fertile ground throughout the many strands of argumentation studies which burgeoned in Europe just after 1970. Much of the initial work in this area was on informal fallacies, and it was here that Hamblin's work was widely used in philosophy and especially philosophical logic, leading to greater recognition in these circles of his pioneering application of formal dialogue models to this area (Rescher, 1977). As the field of argumentation studies continued to grow, through the many conferences, workshops, papers and academic books, it has continued to flourish in Europe, and even started to gain a significant foothold in North America, China, and many other countries.

A new interdisciplinary field has emerged from this research in computer science, especially in artificial intelligence, multi-agent systems and cognitive science. As well, researchers in informal logic who have concentrated on the structure of argument by analyzing natural language arguments found new ways to model argumentation in real examples. There is a growing army of researchers not only in Europe and North America but all over the world now who are now actively participating in this kind of research. Because this work arose from coalitions between different disciplines, a single widely accepted key word categorizing it has not yet been settled, but it includes such areas as informal logic, computational dialectics, formal argumentation systems, argumentation

technology and computational linguistics. Research topics in the area are theories of argument, and of dialectic in particular, the design of computational systems for multi-agent communication, rhetorical argumentation models for argument invention tools for debating, the use of formal and computational models for autonomous reasoning in artificial intelligence, and the development of software tools for helping to improve argumentation in domains such as education, medicine, law and political domains, most notably deliberative democracy and e-government.

Many of those familiar with Hamblin's work on fallacies and other topics of interest in philosophy, formal logic, linguistics and informal logic (Hamblin, 1963; 1970; 1966; 1987) may not be aware that he was also a pioneer researcher in the field of computer science. Peter McBurney (2003) chronicles the story, here briefly outlined. The University of New South Wales purchased a DEUCE computer in 1956 that was manufactured by the English Electric Company. Hamblin had a radar background from his service in World War II and took up the problem of computing mathematical formulae using the limited memory of this machine. He proposed a solution of using the so-called Polish notation, which eliminates the need for brackets (Hamblin, 1962). He implemented these and other ideas in a programming language for the DEUCE machine he called GEORGE, for general order generator. Hamblin continued his research in computer science, resulting in a number of published scientific papers (Hamblin, 1985). But after 1960, Hamblin returned to the work in philosophy which had begun with his PhD thesis at the London School of Economics entitled *Language and the Theory of Information*.

Hamblin's book *Fallacies* was only a small part of a larger project that he was working on prior to 1970, and that continued until the time he died. This larger project is outlined and explained in *Linguistics and the Parts of the Mind*. Its aim was to find practical technologies that could be used to identify, analyze and evaluate arguments. The method used was to reframe all logical problems about the evaluation of arguments by putting them into a dialogue structure in which arguments are viewed as linguistic interactions between two or more participants who take turns putting forward speech acts such as asking questions and answering them (van Eemeren and Grootendorst, 1992). Of course, as the fallacies book made clear, this dialogue approach seemed highly radical and irregular at the time to many other formal logicians and philosophers of the time even though it was by no means entirely new. It was in fact a development of the dialectical framework of the ancient Greek philosophers (Krabbe,

2013; 2016), most notably including Plato and Aristotle, as Hamblin made clear in *Fallacies*.

Fallacies was nevertheless seen as a departure from the widely accepted approach to logic (and philosophy generally) in 1970. It was the only comprehensive academic book on the logical structure underlying the formal and informal fallacies since the Middle Ages, and arguably the first book with this level of depth of theory since Aristotle's *On Sophistical Refutations* (Mackenzie, 2011, 263). But Hamblin's book went against the dominant intellectual paradigm established since the time of the Enlightenment of admitting only two respectable methods for evaluating logical reasoning, deductive logic and probability theory of the statistical kind stemming from the era of Pascal. Now that this dogma is finally starting to fall away, more and more academics are open to looking at Hamblin's achievement with fresh interest.

Until 1970, the subject of fallacies had been sadly neglected over the history of logic since the time of Aristotle, with only a few exceptions that failed to excite any concerted interest in the importance of this field. But not long before Hamblin's book appeared, the subject of fallacies had begun to be much more widely treated in introductory level logic textbooks, and seen to be important for helping students to acquire better thinking skills. However, prior to Hamblin the textbooks treated fallacies in a fragmented and superficial way. The Standard Treatment, as Hamblin called it, lacked the coherence of an approach that could be provided by a theory. That started to change just after the time of the publication of Hamblin's book *Fallacies* (1970), and that in turn led to the rise of the new field now called informal logic or argumentation.

The problem was that even approaching the study of fallacies required a new theory, since many of the types of arguments treated under the heading of "fallacies" had instances that seemed from a point of view of common sense to be quite reasonable when placed in the right context. The textbook authors did not apply any such theory (for there was none) to real examples of arguments in a way that could help their students try to figure out which examples of arguments were fallacious and which were not. This state of ignorance (lack of knowledge) abruptly changed when Hamblin's book offered a clear and formally developed theory of a kind that clearly had this application, at least potentially. When the theory was formulated and published (Hamblin, 1970; 1971), although it was widely read and esteemed for its evident depth of scholarship, it departed too far from the conventional approach to logic favored by the dominant philosophy graduate schools in North America and Europe for it to have much impact on the influential curricula of the time. For many, its ideas

were too far outside the mainstream to be acceptable. Also because of their technical nature, these ideas can be hard for beginners to grasp or accept very easily. A main aim of Hamblin's *Linguistics and the Parts of the Mind* was to explain the theory in a clear and easily comprehensible way by showing how to apply it to the logical and linguistic problems that were current at the time. Interestingly, these problems are still of central interest to those of us working in philosophy, argumentation studies, artificial intelligence, cognitive science, linguistics and related fields. They are perennial problems of rational cognition, and that is why *Linguistics and the Parts of the Mind* is still useful.

According to the current argumentation models used in artificial intelligence, argumentation is defined as having two basic characteristics. The first one is that it contains inconsistencies and needs to tolerate working with inconsistencies, because it is used in a context where there is a conflict of opinions of the kind often called the issue (Prakken, 2007). The issue is made up of a claim put forward by one side, and a situation where the other side either doubts this claim or puts forward an opposed claim that is the negation of the original proposition advocated by the first. Logic in the past has not been very friendly to inconsistency, often identifying it as a kind of error (van Eemeren and Grootendorst, 1992). But dialectical argumentation systems need to at least work with inconsistency, even though inconsistency of commitments is the basis of many kinds of important criticisms of arguments. The second characteristic is that as a sequence of argumentation proceeds the arguments both for and against a claim are considered and the outcome of the dialogue is evaluated by allowing the Pro arguments to interact with Con arguments in a rule governed dialogue exchange. This second defining characteristic could be called the pro-con characteristic of argumentation.

These two characteristics precisely represent the notion of argument that Hamblin advocated not only in his published works in 1970 and 1971 but also in *Linguistics and the Parts of the Mind*. Now the fields of artificial intelligence and multiagent systems, along with other subfields of computer science, have adopted many of Hamblin's key concepts and methods of his dialectical framework and built on them with many advances. Now formal dialogue models of argumentation are being used in agent system negotiation protocols, implementation of software systems to model legal procedures, persuasion dialogue models to structure various kinds of debates, computer-based learning tools that use dialectical argument structures of the kind advocated by Hamblin, for rational deliberation, and models of knowledge engineering (Rahwan and

Simari, 2009). In particular, there has been recent rapid growth in the fields of artificial intelligence and law (Gordon, 1995; Prakken, 2006), and computerized systems for diagnosis and treatment in medicine (Uphsur and Colak, 2003). There are many regular conferences each year on computational models of arguments, and in many of them argumentation is treated as a standard research topic for submitting papers. This gives you an idea of how widely and deeply Hamblin's ideas have spread, affecting the fundamental logical basis of computer science, now current research efforts in scientific fields have applied these dialectical models. They are still doing that.

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AUTHOR'S FOREWORD

This book, or at least my preoccupation with its subject, has a long history. I still have a copy of a note I wrote in 1950, in which I told myself that utterances are classifiable by *mood*, into indicative, interrogative imperative and perhaps others, and by point, according as they raise topic points, points *ad hominem* or points of order. I have amended these classifications; but I thought then, and still do, that classifications of these kinds, and their consequences for language, have been neglected. Basically what was required was a theory of dialogue.

In the following few years, although I worked on communication theory and the logic of questions, the main project was shelved. Then about 1960 I wrote a very bad book on it, called *The Testing of Reasons*. Its style was a studied chaos of a typically twentieth-century kind, along the lines of *Finnegan's Wake* or *Dali* pictures: the rules of dialogue were supposed to be exhibited by being discussed in a dialogue which constantly broke them; but the few people whom I induced to read it found it inscrutable altogether. It was rejected by two publishers, rewritten, and rejected by two more. By this time I had rightly begun to lose faith in it myself as well.

Some of the content, though not the style, of that effusion is here reproduced; most of it has been reworked and much altered. None of this material has been published, but about 1965 I wrote a paper entitled "Formal Dialectic and the Parts of the Mind" which I have read on two occasions and circulated privately. It is partly reproduced here in Chapter 6. My interest in the project was sustained throughout the writing of *Fallacies* (Methuen, 1970), when I found that the conception of "dialectic" as a paralogical study was not merely helpful but in some sense necessary to the correct characterisation of the logical fallacies of the traditional list. This book, one might in fact say, starts where Chapter 8 of that one left off; though its eventual aim is different.

I have written down the whole thing here as I now conceive it, without pretence either to logical completeness or to rigour, because it seems to me that there are important points to be made and the matter has gone on long enough. Those who would like greater rigour may find it, over a small part of the field, in my paper "Mathematical Models of Dialogue"; and those who are worried about some of the *lacunae* may find at least

one of them, the dialectic of tenses, discussed in my "The Effect of When It's Said". (Both papers are forthcoming in *Theoria*. (August 1971, Vol.37(2), pp. 130-155 and December 1970, Vol.36(3), pp. 249-263, resp., Ed)) These, at least, will serve as promissory notes.

So many people have helped or good-naturedly hindered this project that I would not know where to start in enumerating them. The influence that it especially occurs to me to acknowledge is one of the temporally most remote, that of my former mentor D.A.T. Gasking. There is not much of him here, but the philosophically acute will recognise it and may even judge it as crucial. I hope he does not shudder at what it has become.

Sydney February 1971

INTRODUCTORY

CHAPTER ONE

MACROLINGUISTICS

Linguistics is so many different things to so many different people that the ordinary reader must be pardoned if he has doubts whether they all know what they are talking about. To the field linguist, to start with, it is the patient accumulation of grammar and vocabulary, the tape-recording of phonetic nuances, the invention of alphabets and of teaching aids. To his archaeological counterpart it is the decipherment of inscriptions and scrolls. We may remember Browning's grammarian:

He settled *Hoti's* business - let it be!
Properly based *Oun* -
Gave us the doctrine of the enclitic *De*
Dead from the waist down.¹

But even Browning thinks these accomplishments "loftier than the world suspects". These classes of linguists are, in their different ways, practical men, and their combined efforts have given us an impressive picture of the range and diversity of human languages.

On the other side there are what it would be ungracious to call *unpractical* linguists, and more polite to call *theoretical* linguists. (Some of them, these days, call themselves *structural* linguists, but this is a rather restrictive characterization.) This kind of linguist studies not languages but Language; and often enough his ultimate quest is not even a theory of language but rather a theory of the meaning of life or of human society, or the answers to certain philosophical problems, or the nature of thought or of the human mind. The idea that the study of Language has something to contribute to these apparently irrelevant purposes has been going around for a long time now; not only in this century, but in Descartes and Locke, in the middle ages, and even in Plato and the Stoics. The recent upsurge of interest in linguistics, though it has incidentally contributed to the study of grammar, seems in most of its practitioners to have this kind of source and

¹ Browning, R.B. "A Grammarian's Funeral".

motivation.

The other unpractical linguists are the philosophers, many of whom make no pretense of linguistic competence but the relation between linguistics and philosophy at present must be very confusing for the casual reader who had understood all along that twentieth-century philosophy was linguistically-oriented, but now finds that linguists have apparently staged another revolution and are making the pace. Actually, what passed as "linguistic philosophy" was not very closely allied to the study of language, but was concerned rather with the application of various preconceptions of language to the study of philosophical problems.

This book is itself a contribution to unpractical, and in fact philosophical, linguistics. But I hope it will be found a little less unpractical than some. The two wings of the study are currently too far apart, and theory needs to be tested with practice.

If, however, we are to advance the theoretical study of linguistics we must first cure linguists, and the philosophers who advise them, of a myopia that leads them, like schizoid patients looking at Rorschach ink-blot, to see only rare detail and be blind to the larger patterns into which this detail fits. And I must hasten to say that I exempt the practical linguist of this charge. The nature of his task inevitably keeps him in touch with reality. But amongst those who have recently written about the theory of language it is hard to find any synoptic appreciation of the processes and purposes of human communication. The reasons for this we shall explore in due course; in short, to concentrate on the grammatical structure of sentences, without considering their use in broader discourse-patterns, is like studying *Hamlet* not only without Hamlet himself, but without distinguishing one player's utterance from another's, or taking into account speaking-order, place, time and set. And this is what most writers currently undertake to do. For all they tell us, the interchange of linguistic noises by two-legged humans might be a random and rationally inexplicable phenomenon, like the dripping of a tap.²

Consequently, in this book, I shall say almost nothing about sentence structure. I shall be concerned, instead, with what kinds of sentences there are, and with how they may be put together to make up larger pieces of discourse, particularly dialogue. I do this not because I consider grammar totally unimportant, but because I think priority should be given to an attempt to extend the linguist's field of view. The word *macrolinguistics*

² Since first writing this I have read Fries, who does some part of what I here say no one has done. But he is the exception, and he does not do it all. Fries, C.C. *The Structure of English*, New York, Harcourt Brace and Company, 1952.

will serve as a name for this study.³

Now macrolinguistics, as it happens, has its own light to throw on various concerns outside linguistics proper. In fact it is almost axiomatic that so soon as attention is given to the larger purposes linguistic utterances serve, issues and interests beyond those of language become involved. In a later chapter I advance a cautious thesis about the relationship of macrolinguistic categories to theories of the human mind; and in others I shall sketch attitudes to various more-or-less important philosophical issues. But the first part of the book will, I hope, stand on its own feet.

And, to start with, something must be said about the present state of the theoretical, "structural" study.

Structural linguists often write as if it were possible to give a syntactic and semantic analysis of language in isolation from pragmatic aspects. This is understandable, since if successful they would thereby mark out for themselves a private specialism. Unfortunately it can be done, if at all, only at great strain to the theory they erect. More practical-minded linguists would never in practice agree to this, since they know the limitations of grammatical theory and the extent of the exceptions to it. Linguistic facts are recalcitrant by nature, and forcing only distorts them. (And this is a lesson we must remember throughout this book. My attempts are at best attempts to accommodate linguistic facts *better*, and are to be judged by their success at this, not by their shortfall from perfection. My criticisms of current linguistic theory are to be read in the same spirit).

Thus most of the sins of the structural linguist are of omission, not commission. But there is one respect in which considerable naivety has been displayed, namely in the matter of *meaning*. The modern distinction between *syntactics*, *semantics* and *pragmatics* is due to Rudolf Carnap⁴, and was conceived as a distinction between three levels of rules for a system of logic: syntactics gave the rules of sentence-construction, semantics the rules determining logical truth and falsehood (in what were predominantly "indicative mood" sentential formulations), and pragmatics the rules of use of these sentences in supposed actual communication. In fact pragmatics was never very clearly defined compared with the other two, since the question of *use* was one that Carnap never particularly got round to considering. Even as an approach to a formal system of logic, this

³ I owe it to Dr Robert Dakin of the University of Papua and New Guinea, who used it in introducing a paper I read.

⁴ Carnap, Rudolf *The Logical Syntax of Language* (1934), translated by Amethe Smeaton. London, Routledge & Kegan Paul, 1937.

has its limitations; and when we turn to the study of natural languages it is not at all clear that to ignore pragmatics - that is, to ignore the rules of actual *use* of the expressions of the language - is not to throw out the baby with the bath-water.

It could in any case be doubted whether it is possible to treat syntactics and semantics separately. Many writers on structural linguistics profess to do just this: their books are wont to contain block-diagrams of the process of generation of a grammar, in which one block is labelled "semantic element", perhaps associated with a stage of the process called "lexical insertion". Different writers favour different block-diagrams but the general idea is the same: rules of grammatical structure give us sentence-blanks which can be filled in in various ways with meaningful words to make fully-meaningful sentences. Thus consider the analysis of a sentence such as *John hit the ball*:

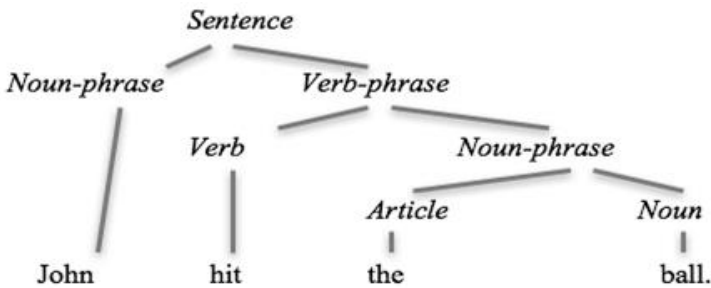


Fig 1-1

(I ignore the tense of the verb.) The upper part of the tree - if it is considered as a scheme for the *generation* of the sentence - can be constructed independently of what words are finally inserted at the ends of the branches. I could have written *Joan* instead of *John*, *threw* instead of *hit*, and so on.

The answer to this sort of theory of grammar is that it fails to deal with what is usually called "idiom". In fact an *idiom* is commonly defined as a group of words whose meaning cannot be deduced from the meanings of the individual words.⁵ Thus consider the sentence *Bill kicked the bucket*:

⁵ I owe some enlightenment to a paper by Alan Healey entitled "English Idioms", in *Kivung*, vol.1, No.2 (August 1968); and to discussion with its author.

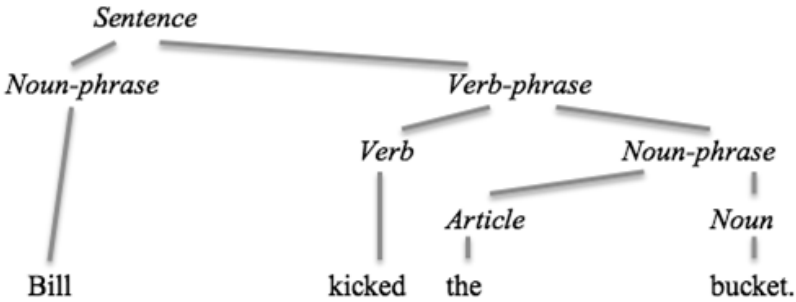


Fig 1-2

The structure is apparently the same as in the previous example, and "lexical insertion" produces it from what is otherwise the same tree; but the semantic properties of this sentence are not to be equated with those of the previous one. The phrase *hit the ball* refers to someone's act of hitting something, but *kicked the bucket* does not refer to anyone's kicking anything. (And it does not permit the same transformations: it cannot, for example, be put into the passive, *The bucket was kicked by Bill.*)

In saying that an idiom has a meaning different from the one its structure might indicate we mean that it has a *use* that deviates in appropriate ways, from the *uses* of its component words. Deviance implies a norm, and it may well be that structural linguists more-or-less correctly describe the norm. Nevertheless, it is important here to emphasise that use, not structure, is the *criterion* of meaning. To take even simpler examples: if I meet you and say *Hallo* no amount of structural analysis of this unstructured utterance will tell you what it means; and if, alternatively, I say *How do you do?*, a structural analysis could be positively misleading even concerning the category of the utterance, suggesting that I have asked you a question. (*How do I do what?* you would answer.) Examples of idiom could be multiplied.

Noam Chomsky, one of the fathers of modern structural linguistics has repeatedly used an argument against this contention, to the effect that since the potential of language is *infinite* - and, in particular, because a speaker of a language is apparently capable of using new sentences, meaningfully, without previous experience of their meanings - knowledge of a language must be knowledge of a set of structural rules rather than of a number of prototype utterances. Properly understood, this need not be inconsistent with what is here said: it tends to miss the point, which was made succinctly for us by Lewis Carroll through the mouth of Humpty Dumpty. The question is, who is to be master, that's all. It is true that, when a

sentence is used for the first time, one's tendency is often to allot it a meaning in accordance with a set of grammatically oriented habits. A foreigner or a child hearing *Bill kicked the bucket* for the first time might do this, and ask "*Which bucket?*" But, first time or not, the use of the sentence *could* have been idiomatic, in departure from grammatical expectations; and if so, that would have been the determining factor in its meaning. Idiom, whether it is actually the rule or the rare exception, *could* permeate language, and to see whether any given locution obeys the meaning-rules of the structural linguists we need to examine how it is used.

A modern structural linguist, particularly one of the "general semanticist" school⁶ would, perhaps, be quite unperturbed by our account of *How do you do?* and *Bill kicked the bucket*. He would say that *How do you do?*, properly considered, is a one-word indivisible greeting; and that *kicked the bucket* is a special kind of irregular verb that differs from most verbs in having spaces in its spelling. That is, he would make *ad hoc* exceptions in all the difficult cases. But I think this is cheating. Already in calling *How do you do* a *greeting* he would be making a point about its use; just as he would be if he were to call it, incorrectly, a *question*. And he is making a point about use even if he calls *John hit the ball* a *statement*, for he would be saying that it is, or is properly, used to state a fact. Statement, question, greeting – these are, at least in typical cases, categories that indicate features of use of the utterances concerned. I do not want to suggest that there are no complications to this picture: that we never, for example, use a question to make a statement ("rhetorically"), and so on. But by origin, and ultimately, even grammatical distinctions are distinctions of use.

Consequently pragmatics, far from being a study the theorist can postpone until he has finished with syntax and semantics, is of the essence of language. And one effect of the tendency to ignore the practical use of language has been the tendency to concentrate on smaller linguistic units rather than larger. If I think that the difference between a statement and a question is that the first is designed to impart information and the second to elicit it, I shall be encouraged to look at questions and statements as units in a situation of linguistic interchange between speakers. If, on the other hand, I think that the difference is mainly one of word-order and special idiom, I shall tend to spend my days studying *minutiae* of

⁶ Generative semantics is expounded in McCawley, J.D. "The Role of Semantics in a Grammar", in *Universals in Linguistic Theory*, edited by Emmon Bach and Robert T. Harms. New York, Holt, Rinehart and Winston, 1968. For a comparison with his own theory see Katz, Jerrold J., "Interpretative Semantics vs. Generative Semantics", *Foundations of Language* 6 (1970), pp. 220-59.

grammar. Most present-day linguists, it seems, take the latter view and course. This leads them to neglect an important and interesting study, that of macrolinguistics.

Now let us return to the philosophers. Twentieth-century philosophy has been concerned above all with theories of meaning. Here I should remark that of the two theories I have been contrasting - the "use" and "structure" theories - the second is not really a complete theory as it stands, but needs to be supplemented with a theory of the meanings of individual words; for example, a realistic "naming" theory, or a theory that sees the meanings of words as ideas in the mind of the speaker. But I shall not enter on discussion of these alternatives.

The important division between philosophers, for our purpose, in the past seventy years has been between (a) those who saw language as perfectible, and the philosopher's task, in part, as promoting its perfection - Russell, the early Wittgenstein, Carnap and most philosophers interested in formal logic; and (b) what came to be known as the "ordinary language" philosophers, who generally believed, with Wittgenstein after about 1930, that everything in language "is in order as it is"⁷.

Proposals for the reform of language, or even for the construction of a "logical" language, were regarded as misplaced. Although philosophical problems arise through misunderstandings about language we must blame not language, but ourselves. Even logicians may contribute to these misunderstandings, by importing fixed ideas of the job language ought to do. In reality, language is a diversified tool with a variety of purposes. "Colloquial language is a part of the human organism, and is not less complicated than it."⁸

And when we look at logical tradition - or even at recent logical writings - there is no doubt that the nature of language is gravely and strangely misrepresented. For centuries it had generally been assumed that the business of language was to state "propositions", namely, indicative-mood tenseless fact-stating true-or-false-but-not-both entities capable of standing in a limited number of logical relations to one another and of figuring in inferences. The growth of modern logic, in the work of Boole,

⁷ There was no sudden reversal of Wittgenstein's views. What he thought about ordinary language was already stated in the *Tractatus*, which he wrote in 1917. But in the *Tractatus* he had also tried to define a "perfect language", and this element disappears from his later work, in a major change of emphasis. Wittgenstein, Ludwig, *Tractatus Logico-Philosophicus* (1922), translated by C.K. Ogden. 2nd ed., London, Paul, 1947; and *Philosophical Investigations*, with a translation by G.E.M. Anscombe, Oxford, Blackwell, 1953.

⁸ This quotation is also from the *Tractatus*, 4.002.

Frege and Russell, though it enlarged the range of forms these propositions were permitted to have, did not basically challenge our conceptions of them. In the past thirty or forty years there has been some whittling away of these conceptions by writers who have produced logics of questions, or of imperatives, or of other more esoteric forms of language. But even yet there does not seem to have been any logical writer to whom it occurred to survey the forms language may take, and to produce a synoptic logical theory of those forms.

Instead, there have been attempts to *minimise* the diversity of the forms, by reducing them to one another or to a common form. Thus theories of questions have been put forward that present questions as equivalent to statements; that is, in effect, to propositions.⁹ Or ink has been expended to show that the *logic* of questions and imperatives is really just the *logic* of statements and that the person who asks a question or issues an order is still dealing with propositions but, as it were, doing something different with them.¹⁰ Russell once asserted¹¹ that all language is really imperative, since when I speak to you it is because I want you to do something about it; overlooking the variety in the kinds of thing I may want you to do. And even J.L. Austin, who would normally be classed as an ordinary-language man *par excellence*, tried at one time to argue that all utterances are "performative", a category he had invented himself primarily to deal with the special idiom of promises.¹² There are other examples, too numerous to mention.

Wittgenstein had made short work of dismissing these tendencies:

If you do not keep the multiplicity of language-games in view you will perhaps be inclined to ask questions like: "What is a question?" - Is it the statement that I do not know such-and-such, or the statement that I wish the other person would tell me ...?

Of course it is possible to substitute the form of statement or description for the usual form of question: "I want to know whether ..." or "I am in doubt whether ..." but this does not bring the different language-games any

⁹ See Chapter 6, below.

¹⁰ See, for example, my discussion paper "Questions Aren't Statements", *Philosophy of Science* 30 (Jan.1963), pp. 62-3.

¹¹ Russell, Bertrand, *An Inquiry into Meaning and Truth*, London, George Allen and Unwin, 1942, pp. 26-7.

¹² And a variety of cognate idioms: I return to performatives in a later chapter. Austin's earliest treatment of performatives is in "Other Minds", Proc. Arist. Soc., Supplementary Volume XX, 1946; reprinted in Austin, J.L., *Philosophical Papers* (J.O. Urmson and G.J. Warnock, eds.), Oxford University Press, 1961.