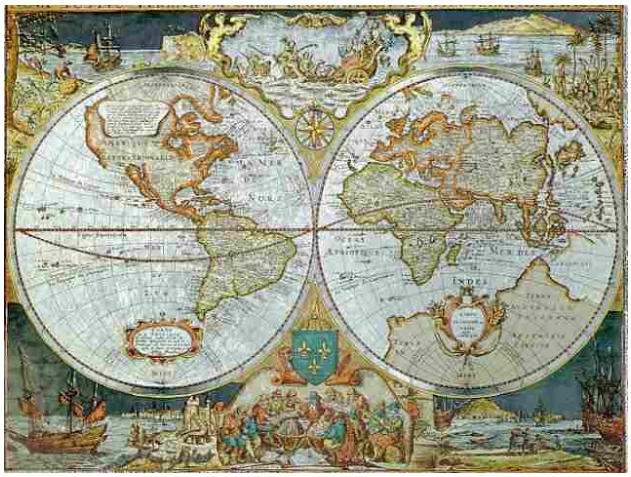
Introduction to Linguistics
Reading:

Bateman (2004, Chapters 3 and 4)

3 Maps, models and theories: the emergence of linguistic theory



WHAT WE ARE DOING IN THIS CHAPTER.

We have now introduced a range of quite useful and powerful linguistic constructs that already allow revealing interpretations of some of language's meaningful patterns. By applying these, we can see how texts are simultaneously committing to meanings of various kinds—particularly ideational, interpersonal and textual meanings—and these in turn relate those texts to their intended, or their appropriate, contexts of use. But we have yet to achieve a more systematic overview of these constructs: where do they come from? How do we know how to find them? How do we know that they do what we think they do? Are there many more such constructs?

In this chapter, we consider how linguistics has developed, particularly over the last 150 years, as a way of answering such questions. The most significant change that has occurred over this period is in the methods that linguistics, and linguistic theory, relies upon. Understanding the basic orientation of these methods is a crucial step in understanding not only the 'what', but also the 'why', of modern linguistics.

In the previous chapters we saw several of the tools of linguistics at work. Particular ‘bits’ of language, of texts, of clauses, were suggested to take on very particular tasks in the creation of texts. We saw that we could take texts apart quite systematically in order to reveal more of the processes underlying our intuitive understanding, or response, to texts. Even though we are generally not consciously aware of the particular linguistic details that are responsible for the understandings that we construct, it is nevertheless the case that without those linguistic details other interpretations would be placed in the foreground and we would be dealing with quite different ‘texts’.

We also saw that we could take a text apart in rather different ways depending on the kinds of meanings that we were examining. Different bits of language were being invoked in each case. What we are going to examine in this chapter takes this further. We want to be able to explore how these different kinds of meanings, and the respective differing bits of language that carry them, can be related. In short, we need to move beyond a list of isolated tricks that show us aspects of a text’s construction in order to see how we can systematically explore all that contributes, or might contribute, to a text’s situated interpretation.

We took some time introducing grammatical Subjects and Finites, grammatical Themes, and the grammatical configuration of Processes, Participants and Circumstances because, as should now be clear, they are not immediately obvious. We have to go looking for them and we have to know how to find them. We also need to be as sure as we can that they do indeed have the effects claimed for them. Moreover, they present such different views of what is going on in a clause, that it is sometimes not immediately obvious how they are to be separated.

We see this very easily when we contrast, for example, Finites with Processes. As may have struck you when they were first introduced, they both overlap in many cases: if we have a clause in the simple past tense, such as ‘He gave the boy a book’, the grammatical element *gave* is both Process and Finite. But this is actually an accident of this particular clause: as soon as we consider the related ‘Did he give the boy a book?’, it is revealed that Process and Finite lead very different lives. Forming the question forces the two apart: the Finite, concerned with interaction, is moved to the front and surfaces as *did*, while the Process is spread over two elements, the most important of which is deprived of its tense contribution and surfaces as the non-tensed form *give*. Combining Process and Finite within a single category, or within a single grammatical element, would make everything much more

complicated and would hide the essential systems that are involved in the grammar of English clauses.

This leads us to two areas of central concern. How do we separate out the particular descriptions that we need so that we do not lump together things that ought not be lumped together? And how do we know we have separated out things that are really there in the languages we are investigating? This latter question is made particularly difficult because of the very non-obvious nature of the linguistic elements that are at work.

There has been a long history of proposals for treatments of various aspects of language. Some of them look, by today's standards, rather odd—regardless of whether you are a linguist or not! Here, for example, is a suggestion concerning the origin of certain Latin words made by an early European scholar, Isidore of Selvile, during the 6-7th century.

- The word *corpus*, for 'body' was clearly drawn from the phrase *corruptus perit.*
- The word *homo* ('person, human') was to be explained by relation with the word *humus* ('mud') because people are created from the earth.
- The word *iumenta* ('mare') can be motivated from the form *iuvat* (from 'help') because horses help men.

These and other **etymologies** (from *étymos* = 'true' and '*-logía'* = knowledge) were seeking to find order in the nature of language. They were explaining particular occurences in terms of a system of logical reasoning and a belief that the regularities in language were related to regularities in the world. However, at the time when these suggestions were made, there was little that could be done either to prove or disprove the statements made. If our claims concerning Finites, Processes and the others were made on a similarly weak foundation, we would not be able to go very far at all.

Much later, but still on considerably less than solid ground, is the following quotation concerning the English language from 1771 (cited in Eco's *Search for the perfect language*). English is, apparently,

> "...the mother of all the western dialects and the Greek, elder sister of all orientals, and in its concrete form, the living language of the Atlantics and of the aborigines of Italy, Gaul and Britain, which furnished the Romans with much of their vocables... The English

language happens more perculiarly to retain its derivation from that purest fountain of languages...” (Rowland Jones)

If you suspect the author of perhaps following other agendas than those solely to do with the disintereseted pursuit of knowledge concerning the English language, you would be correct. The quotation is taken from a time when there was a particular concern with showing the value of the native languages of the then emerging nations and a natural way to do this was to try and build a connection with the original, ancient languages or language—in the best case, to the language spoken by Adam as directly given by God. Similar examples can be found (and indeed are given by Eco) for several other languages in very much the same vein.

The more general point here, however, is that some rather strong *linguistic* claims are being made—for example, that the languages originally spoken in Italy and Greece are descended in some sense from English—and so we need also to be able to evaluate these linguistically. If someone makes a claim such as that shown here, how can it be supported or disproved? Are there objective ‘facts’ about the languages discussed that provide a way forward? The answer is that there are and it is again the job of linguistics to reveal these.

Whereas these older quotations are probably easy to spot as involving less than solid evidence, the situation nowadays is often less clear—just as when these older statements were made, they were made against a backdrop of ‘naïve understanding’ that made them seem more plausible, so are statements that are made today. Thus, there are still many claims being made about language nowadays which in fact have equally shakey credentials: although these might look reasonable, to a linguist they appear very similar to the claims made by Isidore of Selvile or by Rowland Jones. One need go no further than examining ‘debates’ concerning spelling reforms, attitudes concerning grammatical ‘sloppiness’ in younger generation language users, or the distinct inherent value or lack of value of various dialects to find oneself in the middle of such rather loose ‘linguistic’ talk. The arguments can become extremely heated and have more to do with social prejudices and feelings of personal and social identity than with language. We need to accept that it is just not obvious what claims are sensible concerning language and what are not and a more secure starting point for discussion than that offered by intuition and ‘good sense’ is absolutely essential.

In short, what we need is a ‘map’ of the territory occupied by language. In fact, as we shall see, we will need a whole collection of

such maps for various purposes that will allow us to explore what language is and how it works in detail without straying into the kind of areas of imagination exhibited in the above quotes. One of the problems of these examples of problematic claims concerning language is precisely that their authors lacked appropriate maps. They then resemble musings concerning what might happen when one falls off the edge of the Earth when one's map used to say that the Earth was flat. Do we fall forever or land on the back of a turtle that is carrying the Earth on its back? Both the questions and the answers are non-sensical. The maps of the 'phenomenon of language' available to Isidore of Sevile or Rowland Jones were similarly unhelpful.

We will adopt, then, this metaphor of the 'map' as a guide for this chapter. We will consider just what follows from the metaphor and how modern linguistic maps are constructed so as to avoid falling off the edge of the Earth!

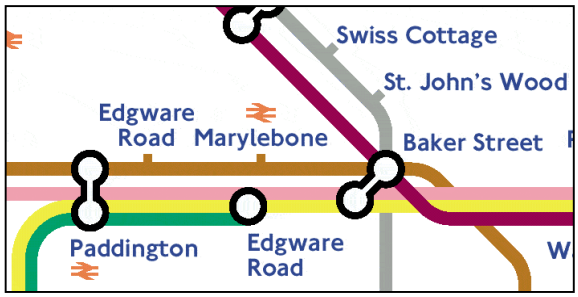
3.1 Maps, diagrams and models

If we consider early maps of the world, such as that shown on the starting page of this chapter, we can notice several things. First, it is clear what they are meant to be doing: they provide an overview of how the land lies, of what the geographical details of the Earth's surface are. Second, it is clear that compared with today's high resolution satellite maps they are relatively inaccurate. Putting these together, we can say that maps in general have some purpose—for example, giving sailing ships approximate directions for travel and exploration—and may be more or less 'correct'. We say 'correct' here rather than 'accurate' because the kind of errors we see in these early maps are quite different from issues of *scale*. If we take a low-scale map of a district and a high-scale map of a district, both can be accurate and both can be correct. The lower-scale map just shows less detail. In the early world maps there are actual mistakes, that is, claims about how land and sea are divided and the shape of coastlines, or the courses of rivers, that are plain wrong.

This is then similar to early claims about language: it is not that the claims are inaccurate, in the sense of not showing as much detail as perhaps a modern linguistic account would, it is often more the case that the claims are *simply wrong*. In the case of Rowland Jones, it is absurd to claim that English was an ancester of the ancient languages of Greece and Rome when there *was no* language that could even metaphorically be called English prior to around 450 AD. We are not then dealing with matters of opinion, we are moving towards a view

of language which that really tries to sort out the ‘facts’ of the matter, and it is in this sense that modern linguistics is more closely aligned to ‘science’ and the methods of the natural sciences than it is to textual interpretation. A map that informs the captain of a ship that a certain island exists in the middle of the ocean when there is no such island may be exhibiting an interesting poetic license, but it is not helpful for navigation.

Seeing the linguistic exploration of language as a process of constructing maps is a useful analogy in several ways. Let us consider the question of purpose. Whether or not a map is accurate, or correct, is not an absolute feature of a map that can be decided in isolation. It actually depends on what the map is for; on what properties of the ‘mapped object’ are to be represented with the map.



To make this clear, consider the (extract from a) map on the left. This particular kind of map has a very particular kind of function and **this means that it will only answer certain kinds of questions**. For example, it will tell us how to go from Paddington station to Swiss Cottage on the London Underground very effectively: but it will not tell us exactly how far Paddington is from Swiss Cottage. If we measured the distance and decided it would be quicker to walk, or take a taxi, because then we would cut off the corner at Baker Street, then this could well turn out to be a sad mistake. This is because the layout of the underground map has been designed so as to represent the distinct underground lines and points of connection effectively; distances between stations and even exact geographical location (especially of stations on different lines: cf. Edgware Road which occurs twice!) are not something that has been preserved. As Widdowson, in his introduction to linguistics, puts it, such a map

> “bears very little resemblance to the actual layout of the track the trains run on, the twists and turns it takes as it threads its way underground. It gives no indication either about the distances between stations. It is even more remote from the reality of London above ground with its parks and public buildings and intricate network of streets. Such a map would be quite useless for finding your way on foot. It is in effect a model of the underground transport system designed as a guide to the traveller using it, and it leaves out everything which is not relevant to that purpose.” (Widdowson, 1996:19)

We see here the connection of maps with models. When a map is an *abstraction* as is here the case, then there is more happening that a simple naturalistic picture: we have a model of the underground system, one which only presents the salient features of that system for some purpose.

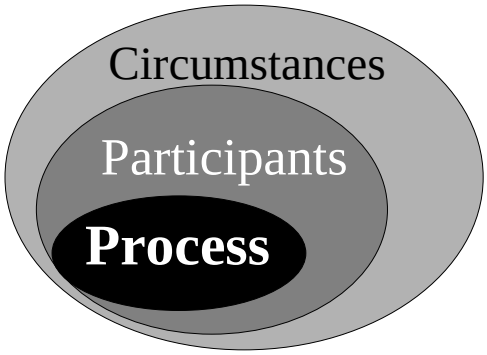
As well as only allowing particular kinds of questions to be asked and answered, a good map of the London Unterground variety will also be *much more effective* for answering those questions than other kinds of maps. This is why they are used of course. They have a very particular kind of accuracy, one specially tuned to giving a particular kind of information back. The map can still be judged as being correct or incorrect: for example, if the map did not include the combination of the four train lines at Baker Street (just off-center to the right of the map) or, worse, did not include Baker Street at all, then the map would quite simply be wrong. It would lead to false predictions of how the Underground system in London is and would lead users of the map into error. It would not be an accurate *model* of the London Underground system. Leaving out particular curves of the track, or changing the distance between stations, would not cause such problems and so, within the defined purposes of the map, leave the accuracy or correctness of the model untouched.

This connection with correctness is an essential part of constructing models. It is not enough that the model is aesthetically pleasing, it must also correspond in a usable and well-specified fashion with those aspects of reality for which it is intended to serve as a model. We must be able to go out into the world and evaluate the model against that world. How this is done will depend on the particular purposes for which the model is being developed. And precisely the same holds for our linguistic maps. We must be able to go to the *linguistic reality*, and ask whether particular details of our maps hold or not. The question of whether or not a linguistic map or model is correct is therefore an *empirical* issue: one that can be ascertained by ‘experiment’.

Returning to our Underground map, if we also wanted to find a particular shop in a particular street, and that part of our journey had to be done on foot, then just having access to the Underground map would not be sufficient. We would need also to have a London street map to hand in order to take us from one defined point (an Underground station) to our actual destination. We would need to *change maps* to get the entire job done. This is also exactly the same in linguistic map building. It is often the case that in order to get to our destination, in order to answer some question we have about language and its

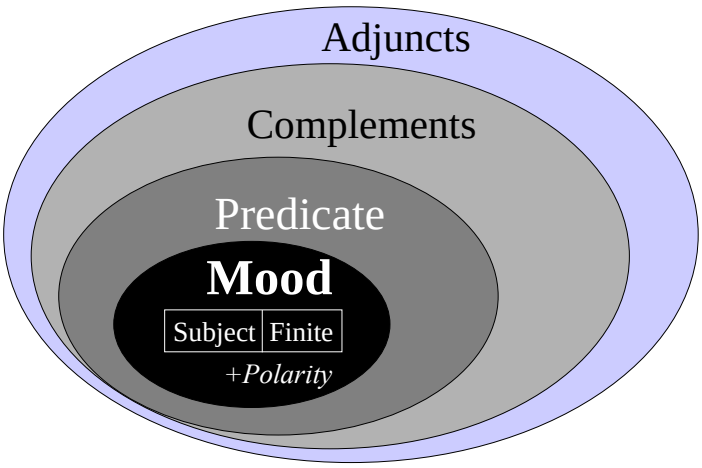
functioning, we will need to combine different maps. It is therefore extremely important that we know exactly what maps there are, what they contain, what their purposes are and, finally, *how to find appropriate transition points from one to another.* We will give several examples of this in this and the next chapter: in general, mixing elements of different maps can be a recipe for disaster. What we get is not a map at all, but simply confusion. It is confusing because (a) the *reasons for putting something on a map* may be quite different across different maps and (b) the *criteria for deciding whether the map is correct or not* will likely be different across different maps.

We have already seen some contrasting maps of grammatical clauses. Here is the general map of the clause from the perspective of transitivity that we saw previously:



This is a general map for any grammatical clause. It shows the divisions that are made between elements just as a map of the world shows divisions between land and sea. Armed with this map we can explore any clause and find its internal divisions. But only if we know how to recognise the different elements.

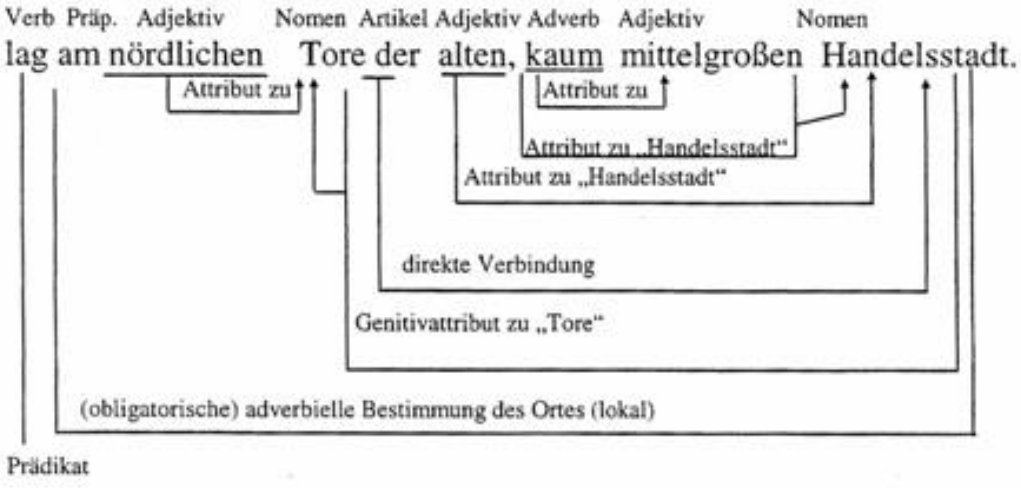
Moreover, as we have also seen, this is not the only map that it is useful to apply to clauses. We might also look at the interpersonal map of a clause, and this gives us a rather different picture:



We have not yet seen all of the elements mentioned in this map; we focused particularly on the Mood element and its role in interaction above. But now we see that this was only one part of the picture and that there are other interpersonally relevant parts of clauses. The same general issue holds as for the transitivity or any other map, however, unless we know how to recognise the different elements—that is, how to relate the map/model to reality—it cannot guide us.

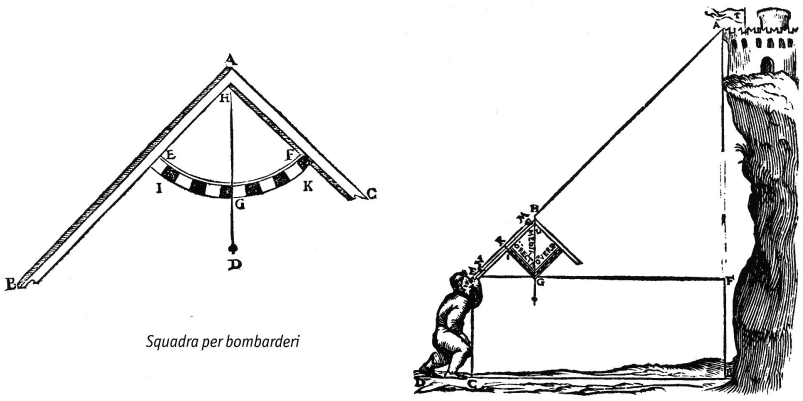
Both the transitivity map and the interpersonal map allow us to answer particular questions about how clauses and their texts are working, just as did the Underground map above about underground connections. But it is not immediately obvious how one can go from one to the other. We need points of contact between such maps. What we cannot do, under any circumstances, is just to confuse them.

Linguists have been looking for useful maps of clauses for a considerable time, but it is only relatively recently that these have been explicitly set out in diagrammatic form. Here is another, for example, this one rather more traditional:



This shows how ‘sentence structure’ was taught, and perhaps in places is still taught, in schools. We find the traditional terms of school grammar as labels and certain dependencies, or connections, between parts of the sentence shown by lines and arrows. Viewing this now as a map, it becomes relevant, indeed necessary, to ask what particular purposes is such a diagram built for. What questions does it allow its users to ask, and what questions does it perhaps make more difficult to ask? And, the question that we must ask of all maps, is it correct? Does it allow the navigator, in our case, the linguist or the language learner, to make correct predictions about where they are going and where they will end up? For this is the final motivation for any such representation: does it fulfill its purpose? Does it work?

The move to consider diagrams here is more than simply a question of aesthetics. Diagrams have played a central role in the development of science in many areas. Consider the drawing below from around 1540.



Squadra per bombarderi

Here we see something typical of that time. Particular geometric aspects of the diagram, particularly various triangles, were used to work out unknown distances and angles. This was a forerunner to many of the particular mathematical treatments that we find in science today: The equations and formulae become shorthand representations of the various geometric relationships observed in the diagrams. This is a move that takes us from pictorial representations, that simply ‘re-present’ what is in the world, to more abstract *models* of the world, that pick out particular properties of the world in order to allow us to reason about it more effectively. Just as the Underground map allows us to reason more effectively about catching tube trains, so our linguistic models should allow us to understand more effectively how linguistic structures and texts work.

It is significant that diagrams have found their way into linguistics only very much more recently. Getting used to the diagrams of linguistics is

actually a very important part of learning to think and work linguistically. Just as appropriate diagrams supported advances made in other areas of scientific inquiry, they can also be very helpful when we consider linguistic inquiry.

Diagrams as models: tree diagrams

One of the most frequently applied kinds of diagrams that we find in linguistics turns out to be the **tree diagram**. We will explain below just why this particular form of diagram is so important, although the following example should begin to suggest some of the reasons. Tree diagrams are used particularly, but not only, for the kinds of clause structure that we showed above from traditional school grammar. Nowadays we generally describe sentence structures not in prose, but in terms of tree diagrams. This can often allow us to get our points across much more effectively and also, to use the standard pun, to avoid not being able to see the wood for the trees. Using a tree diagram for a sentence is again analogous to using an Underground map to describe how to use the underground system rather than a street map: it is a tool that is particularly appropriate for its job. It turns out that textual descriptions, that is, descriptions of sentence structure in prose, are not a very good way of describing what is happening in sentences; in fact, it is a very *inappropriate* way of talking about structure.

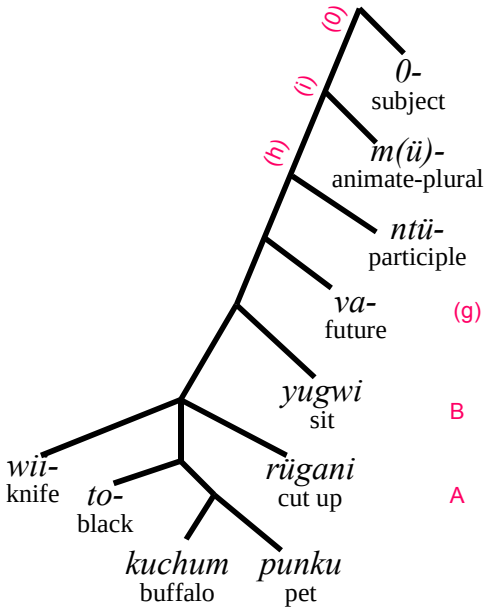
This point is made very well by Peter Seuren (1998) by taking the following extract from Edward Sapir, one of the foremost American linguists of the last century, writing in 1921. Sapir describes the structure of the Amerindian word 'wii-to-kuchum-punku-rügani-yugwi-va-ntü-m(ü)', meaning *they who are going to sit and cut up with a knife someone's black cow/bull* as follows*:*

> "One example will do for thousands, one complex type for hundreds of possible types. I select from Paiute, the language of the Indians of the arid plateaus of southwestern Utah. The word *wii-to-kuchum-punku-rügani-yugwi-va-ntü-m(ü)* is of unusual length even for its own language, but it is no psychological monster for all that. It means "they who are going to sit and cut up with a knife a black cow (*or* bull)", or, in the order of the Indian elements, "knife-black-buffalo-pet-cut-up-sit (plur.)-future-participle-animate-plural". The formula of this word, in accordance with our symbolism, would be (F)+(E)+C+d+A+B+(g)+(h)+(i)+(0). It is the plural of the future participle of a compound verb "to sit and cut up" – A+B. The elements (g)—which denotes futurity—(h)—a participle unit—and (i)—indicating the animate plural—are grammatical elements which convey nothing when detached. The formula (0) is intended to imply that the finished word conveys, in addition to what is definitely expressed, a further relational idea, that of subjectivity; in other words, the form can only be used as the subject of a sentence, not in an objective or other syntactic relation. The radical element A ("to cut up"), before entering into

combination with the coordinate element B (“to sit”), is itself compounded with two nominal elements or element-groups—an instrumentally used stem (F) (“knife”), which may be freely used as the radical element of noun forms but cannot be employed as an absolute noun in its given form, and an objectively used group—(E)+C+d (“black cow *or* bull”). This group in turn consists of an adjectival radical element (E) (“black”), which cannot be independently employed..., and the compound noun C+d (“buffalo-pet”). The radical element C properly means “buffalo”, but the element d, properly an independently occurring noun meaning “horse” ..., is regularly used as a quasi subordinate element indicating that the animal denoted by the stem to which it is affixed is owned by a human being. It will be observed that the whole complex (F)+(E)+C+d+A+B is functionally no more than a verbal base, corresponding to the *sing-* of an English form like *singing*; that this (g), by the way, must not be understood as appended to B alone, but to the whole basic complex as a unit—and that the elements (h)+(i)+(0) transform the verbal expression into a formally well-defined noun.” (Sapir. *Language.* 1921:31-32)

This passage is not the easiest to follow. Even if all the technical terms employed are understood, the precise points that are being made still need to be extracted carefully from the prose.

However if, instead of this, we construct an appropriate tree diagram, and draw directly the grammatical structures that the text is describing, we obtain something like the following:



The graphical representation allows us to get at the important details of the linguistic unit far more quickly. The tree is essentially organised in terms of *parts*, that is, it indicates that the word is made up of parts, which are themselves made up of further parts. Each line in the diagram means ‘is a part of’ and the *nodes*, where the lines come together, are

each made up of the parts that we find following paths down to either further nodes or some ‘minimal meaningful unit’, or morpheme. The central part corresponds approximately to ‘cut up a black pet buffalo with a knife’ and the rest is added onto this. The tree as a whole shows us which bits of the word are most closely related, how the different parts are put together and, with a little extra effort, even how other similar but different words could be constructed, just as Sapir does with rather more effort in his text.

Moreover, what is particularly important about such diagrams is that they invite us to look for **structural configurations**—that is, at reoccurring linguistic patterns about which we can make generalisations concerning how something in a particular language is working. While of course possible with the textual representation—after all, there was a considerable amount of very good linguistics done prior to the use of diagrams—we need to realise that that good work was really *in spite of* the representation selected and not because of it. Most modern linguistics is concerned with seeing reoccurring patterns, and it is therefore advisable to select representation forms that are maximally supportive of that aim rather than hindering it

Seuren suggests that linguists prior to the twentieth century (and even for a long time into the twentieth century) did not draw diagrams of linguistic structures because of a “social code in the ... Geisteswissenschaften [that] simply forbade any schema or diagram representation.” (p187). Even though a description such as that above demands very careful reading and is more a handicap than a help to thinking anything complicated about language, diagrams did not start appearing regularly until the 1950s. We can relate this to very suggestive arguments made more recently concerning the general development currently in progress towards a more balanced use of different media in information presentation, sometimes referred to as the ‘visual turn’. Gunther Kress and Theo van Leeuwen, for example, begin their discussion of ‘multimodality’ in contemporary communication as follows:

> “For some time now, there has been, in Western culture, a distinct preference for monomodality. The most highly valued genres of writing (literary novels, academic treatises, official documents and reports, etc.) came entirely without illustration, and had graphically uniform, dense pages of print. Paintings nearly all used the same support (canvas) and the same medium (oils), whatever their style or subject. In concern performances all musicians dressed identically and only conductor and soloists were allowed a

> modicum of bodily expression. The specialised theoretical and critical disciplines which developed to speak of these arts became equally monomodal: one language to speak about language (linguistics), another to speak about art (art history), yet another to talk about music (musicology), and so on … More recently this dominance of monomodality has begun to reverse." (2001, p1)

We suggest that the reversal that we see in linguistics, where more and more diagrammatic elements play an important role, is also strongly motivated by its subject matter. When we are focusing on linguistic structures and relationships, we need to adopt forms of description that express these most clearly. And so it is in this sense that you should take the various kinds of diagrams and other technical representations that we introduce below. They let you focus on what is important and let you say much more, much more quickly and much more accurately, than would otherwise be possible. They also help you *think* about what is going on linguistically correctly: just as any good map, they highlight precisely what you should be paying attention to and what not.

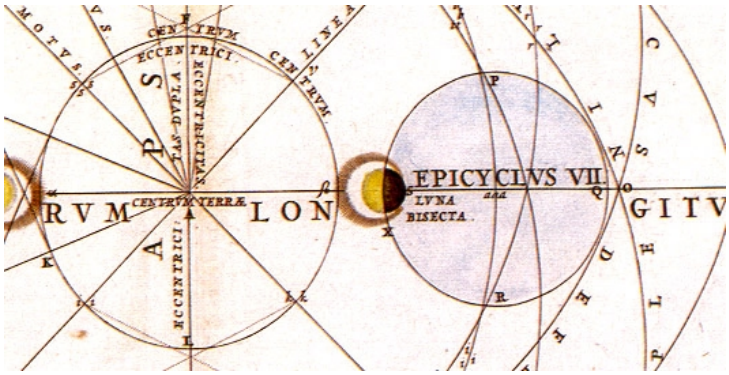
That being said, it is also important to bear in mind that such diagrams can also turn out to be wrong. Just as we can have an Underground map with a mistake in it (e.g., we forgot Baker Street), we can also construct other diagrams that appear convincing and helpful but which later investigation shows to require modification.

We see this very clearly in the following famous illustration. According, for example, to Aristotle and Ptolemy (and many others), it was clear that the Earth was at the centre of the universe. And this is what the diagram on the left represents. In the middle is the Earth, then comes the moon, then the planet Mercury, then Venus and only then the sun. The stars are fixed around the edges. Note that this diagram is not a work if pure imagination: it is based on observations of how the various lights in the sky move and how they appear. The moon is obviously nearest and so presents little problem. We also know that Mercury and Venus (particular in the latter's guise as morning and evening star) never stray very far from the sun. They are always visible, when at all,

just before dawn or after sunset. In contrast Mars can be seen all over the sky and does not appear bound to the sun—which makes it logical that the sun should be placed here between these inner and outer planets.

This is analogous to diagrams made of clause structure. The diagrams try and respond to what we observe about the behaviour of the clause, what happens when it is passivised, what happens when we change the theme, what happens when we express it slightly differently, etc., and to capture the necessary connections that would make this all work in diagrammatic form.

As one's observations become more and more precise, supported by better technology (e.g., telescopes, measuring devices of various kinds) or better questions, or both, one can find that the predictions made by the model no longer line up with what is observed. This means that it may be necessary to change the model, to change the diagram in order to be a more accurate representation of how the world is. The simple circles found in the diagram above, for example, could not account for how the variously identified planets actually moved in the sky. And this gave rise to the theory of 'epicycles', where not only did the planets go round in circles, but they also when round in further smaller cycles (called epicycles) while they were doing this. This was necessary because sometimes it was observed that the planets seemed to 'go backwards' and so could not just be simply proceeding on their heavenly courses. The model therefore did not correspond with reality: empirical evidence could be presented against it.



The more accurate model that was proposed in terms of epicycles was quite complex and it took a radical re-construal, or re-understanding, of what was going on in order to get any further. Moving the sun to the centre of the model, to the centre of the diagram, provided a much more accurate set of predictions with a simpler model. Not only was it simpler, it was demonstrably nearer the 'reality' of the situation.

This, again, is precisely what we are pursuing with our linguistic maps. We want to achieve the simplest possible models that still provide the most accurate predictions. And sometimes, as with the Copernican revolution, this requires throwing away previous models that have outgrown their utility.

3.2 The rise of the 'scientific' view of linguistics

The kinds of structures and patterns that we see being used in linguistic theory today, illustrated very simply by the maps of transitivity, of interpersonal structure and in the tree diagram above, are the result of a long process of historical development and intensive study of language. Just as it was not possible to spontaneously produce a correct map of the world, or a diagram of the solar system that corresponded to the real thing, but required instead very long periods of study and correction, so is it the case with language also. Throughout the past 2000 years there have been times where clear movements have been made towards the kinds of views of language that we have today but it is difficult, if not impossible, to see this as steady and cumulative 'progress': insights reached have often been followed by longer periods where they have been either forgotten or rejected.

There have, however, been several landmark events in the progress linguistics has made from its early beginnings to the present day. Different authors attach differing degrees of importance to these events and so there is no single definitive list of 'breakthroughs'. There is, however, a fairly standard view of the development of modern linguistics since around the turn of the 19th. century; some narratives here place more importance on individuals, others stress more the general trends of which the individuals were representatives. Here we will leave these finer points of interpretation somewhat in the background in order to pick out some of the generally described significant events and individuals. You should always bear in mind, however, that work rarely occurs in a vacuum and there was always a supporting cultural context that made the individual contributions possible.

As we saw in the citation from Rowland Jones above, during the 17th and 18th centuries, there was an increased interest in demonstrating the proper place of many of the 'national' languages that were asserting themselves at that time. An earlier concern with the question of origins on religious grounds, where there was much debate concerning the 'original language as spoken by Adam', was being superseded by claims of an ideological nationalistic nature which sought to show that that each national language was itself the earliest and therefore the 'best', 'purist', 'most natural', etc. (cf. Eco's *In search of the perfect language*). The modern languages were, therefore, at last being considered as at least equal, if not superior, to the classical languages of

Greece and Rome. This naturally went along well with the desire to justify and motivate the very nations for which the languages were to serve as national languages.

As part of this general enterprise, there was naturally a focus on exploring the roots of these modern languages and cultures, as well as seeking out commonalties with the very diverse range of other cultures that were then being 'discovered' as the new nation states began their respective periods of expansion. As one result of this period of investigation and comparison of cultures and languages, Sir William Jones, a judge and Sanskritist working in India, presented his 'Third Anniversary Discourse, on the Hindus' to the Royal Asiatic Society in Calcutta in 1786, a paper that was to drive a programme of linguistic research for the following 50 years. Jones argued convincingly that Sanskrit, Greek, Latin and the Germanic languages all had a common root, or ancestor and, moreover, that this could be *shown scientifically* by examining the fine linguistic detail of the languages concerned.

As he wrote (and as is quoted in most introductions to the history of linguistics):

> "The Sanskrit language, whatever be its Antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either; yet bearing to both of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed, that no philologer could examine them all three without believing them to have sprung from some common source, which, perhaps, no longer exists."

This result was, if itself not solely responsible for, then at least strongly indicative of a state of knowledge or awareness being reached at that time. It was now seen both as desirable and possible, using systematic studies of grammar (mostly morphology) and sounds (although mostly taken from written records), to reveal close *family relationships* between apparently quite distinct languages. Even though the languages had diverged through historical development to the point where they were no longer mutually intelligible to any degree and could appear radically different, close investigation of the linguistic details of those languages could reveal striking parallels.

Given the context of James' concerns, his work, like other research of that time, was not solely concerned with language. James's talk referred to language as just one aspect of a broader comparison and discussion of the literatures, mythologies, appearance, and cultural contexts of the peoples discussed. This therefore fitted well into the many

investigations into ‘origins’ that can be found at that time and before. But the significant shift that can be seen in James’s discussion was precisely the growing realisation and acceptance of the role of *systematic studies* of fine details of the languages investigated. The particular map that was being applied to language was one of a collection of sounds that were organised in particular ways. These sounds could undergo particular sequences of changes which could be different for different languages. Seeing particular collections of forms in languages as ‘related’ to one another in a strong linguistic sense was an enormous step forward.

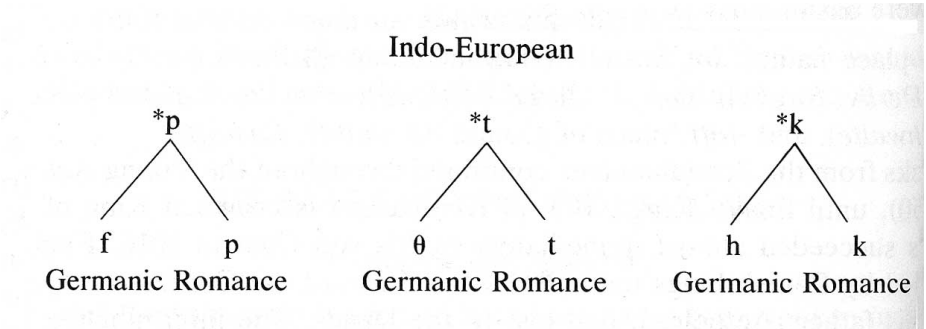
Many previous correspondences had been proposed on rather loose evidence—with results that ranged from the plausible to the absurd as we have seen above. With James’ work we see that the study of correspondences between languages had reached a sufficiently detailed state as to allow genuine correlations to be found and argued for. Given the complexity of language change and development, this was in fact the only way to proceed and James’ talk marked the beginning of a widespread *linguistic* investigation into the commonalities between languages and the search for possible processes of change that could explain them. This area, **historical, comparative linguistics**, then became definitive for the field of linguistics as a whole right through the 19th century.

This research led to a host of discoveries and hypotheses about language change, some of which we will return to later when we take up the subject of language variation in more detail. It is worthwhile here, however, taking one brief example to show the kind of argumentation that was then beginning to be practised. The principal difference that we observe in comparison to previous conjectures is the fact that explanations start applying to whole collections of details of a language and not to isolated words. Consider, for example, the following linguistic ‘data’:

	Greek	Latin	Sanskrit	English	German	French	Spanish
‘father’	patēr	pater	pitā	father	Vater	père	padre
‘fish’	psari	piscis	—	fish	Fisch	poisson	pez
‘foot’	pod-	ped-	pād-	foot	Fuß	pied	pie

For very large collections of words in the languages concerned we find similar patterns. Very broadly, we can see that certain groups of

languages behave similarly to one another and differently from others. For the words beginning with a ‘p’ sound in Greek, Latin and Sanskrit, we find overwhelmingly that the modern equivalents of those words in French and Spanish also have a ‘p’ whereas English and German have an ‘f’.[1] Similar correspondences hold for other sounds. This was sufficient to explain historically the emergence of two large language ‘families’—Germanic and Romance. We can see that in one of these families a *sound shift* has occurred, and in the other not.



Germanic	Romance		
English	***Latin***	***French***	***Spanish***
fish	piscis	poisson	pez
three	tres	trois	tres
heart	cor	cœur	corazón

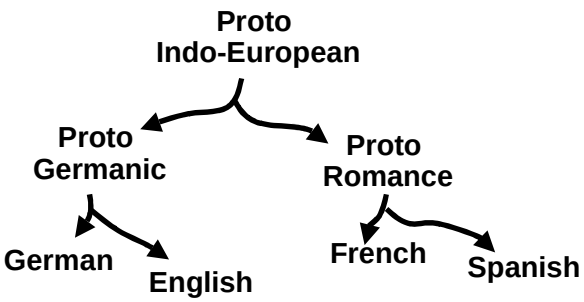
The shift as a whole convinces primarily by virtue of its regularity. Very large numbers of correspondences can be constructed in this way—very many more than could possibly arise by chance. This established clearly the two broad groups of languages—the Germanic and the Romance—and made it certain that they indeed could be seen as deriving from a single historical antecedent. This was the beginning of an extensive methodology that has now resulted in the very detailed statements of relationships between languages that we now mostly take for granted; we will see the development of this methodology in more detail later in the course.

Looking at a broader selection of words with a more representative range of sounds involved, enabled the German linguist Jakob Grimm to demonstrate that the sound shifts that had occurred across related languages were overwhelmingly systematic. This result, published in

[1] As we see in more detail later on in the course, it is not the case that we have simply to compare words that ‘mean the same’. This is because it may well be that the meanings have also changed over time. What is important is to find words that are most likely related by historical development: i.e., words that have grown from a single source. Technically, such words are called **cognates.** This is one reason why it is not useful to present the Sanskrit word for ‘fish’ here.

1822, was subsequently referred to as Grimm's Law—or, more technically, the first Germanic Consonant Shift, or *erste Lautverschiebung,* since a number of other scholars at the time paved the way for this result and the result itself was modified, i.e., made more accurate, later on and so it cannot in its present form be associated soley with Grimm.

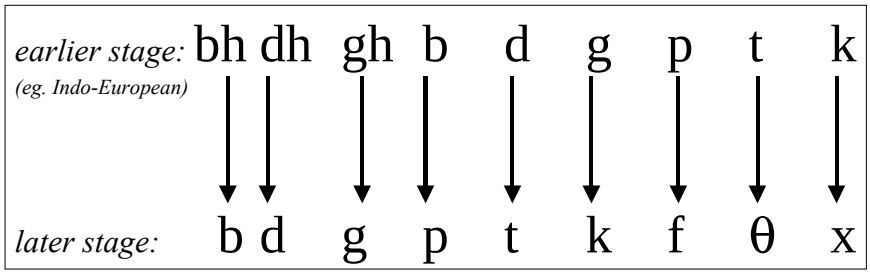
The original Grimm's Law described how all the Germanic languages could be viewed as being derived from "some common source" that itself split off from Romance around 1000 BC from a still older common source. The orginating language hypothesised by William Jones is now commonly called **Proto Indo-European**: 'Indo-European' because it is a common ancestor for many of the European and Indian languages and 'Proto' because it remains an *hypothesised* ancester—that is, no one speaks Indo-European, the language was long dead before Roman and Greek came onto the scene. But the regularity of the sound correspondences found between Romance, Germanic, Greek and Sanskrit mean that it is as near as certain that such a language at one time existed and the majority of the modern languages of Europe and India are its historical descendents. There are also interesting archaeological and genetic studies that have attempted to provide additional evidence both for a tribe speaking Proto Indo-European and their geographical location. One prominent theory is that the Indo-European tribe developed their language and culture in the early Bronze Age somewhere north of the Black Sea; see, for example, Renfrew (1987) for further discussion.



Since there are now no speakers of that first language that split off from the other Indo-European languages and which paved the way for all of the Germanic languages, that language is itself called **Proto-Germanic**. It is from this language that all of the Germanic languages of today are descended. These languages have themselves therefore undergone a number of further sound (and other) shifts that are responsible for the distinct appearance and 'mutual non-intelligibility' today. Filling in the precise linguistic (and, in all liklihood, therefore also historical) relationships between the languages of Europe, India, Russia, Persia and others then occupied linguistics for most of the 19th century.

These systematic sound changes predicted by Grimm's law are summarised for English in the table below. The sounds of the upper

line represent the hypothesised sound of the hypothesised original language (hypothesised because, as James said, this original language is indeed not found anymore) and the sounds of the lower line show their corresponding versions in English (a Germanic language) following the sound shift; similar tables can be prepared for German, Dutch, etc.



The ability to set up such an extensive set of *regular* sound shifts is very significant. It meant that connections could be investigated between languages much more broadly than before: that is, on a ‘system’-basis rather than on individual collections of words.

We will return to some of the finer details of these sound shifts later in the course, but for our present purposes we need to consider a rather different aspect of this research. Although a massive leap forward these earliest results were themselves flawed—they remained observations that sometimes fitted the facts, and sometimes did not. When they did not, the ‘exception’ was left in the air, and was accepted because, after all, language is a complicated thing. As Grimm wrote: “The sound shift is a general tendency; it is not followed in every case.”

This attitude was subsequently severely challenged by the so-called *Junggrammatiker*, or, Neogrammarians (represented primarily by H. Osthoff and K. Brugmann from Leipzig) with some important papers from around 1878. The Neogrammarians said that it was not sufficient for a real exploration of language for ‘laws’ to apply when convenient. They argued for a more thoroughgoing adoption of the methods of the physical sciences: if a ‘law of language change’ were to be proposed, then it should always apply—like the ‘law of gravity’. This leads to the central position of ‘**exceptionless sound laws’**.

If the facts appear to speak against a sound change law, then either the law must go, or it must be refined, extended, or replaced. This is then to fully accept the correspondence between a linguistic claim, or proposed law, and a map or model. If the map does not correspond to reality then one cannot say that the map is just a tendency: if there is a river marked as flowing in some place then it must be possible to get wet there: it cannot be a ‘tendency’ that rivers marked on the map are sometimes

there, sometimes not.[2] A rational explanation should in any case be sought to explain why the apparent exception had occurred. Although there was at the time much debate concerning these proposals, they soon began to show their worth: apparent exceptions to previous 'laws' such as Grimm's were often shown to be quite predictable when examined in more detail. In an extremely influential and well constructed paper from 1875, the Danish linguist Karl Verner established, for example, that a large set of the sound shifts previously seen as exceptions to Grimm's Law were in fact themselves perfectly systematic and did not in fact represent exceptions at all: they were simply caused by different properties of the originating Proto Indo-European forms that had previously been overlooked.

More spectacular still was a result published in the late 19th century by Ferdinand de Saussure, of whom we will hear much more of below, that actually *predicted* that certain sounds must have been present in the original language in order to explain certain patterns and regularities observable in more modern languages. Only some time after this publication had appeared was the writing system of one particular old language decoded and demonstrated to show exactly the kinds of sounds that Saussure had predicted! This is then very similar to the situation known well from particle physics, where a mathematical model 'proves itself' by correctly predicting the existence of particular sub-atomic particles that had not yet been observed experimentally. This result of Saussure's was therefore taken as more or less proving that the method of **language reconstruction** according to regular principles of sound change was a reliable one. Thus it was gradually accepted that language (and particularly language change) could and should be studied in this way.[3]

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[2] We can of course imagine more abstract maps, maps which explicitly state, for example, a probability of finding a river in an area rather than a certainty. In such cases we could speak of tendencies. We will see this kind of map in linguistics also when we come back to deal with language variation. This is a relatively recent innovation in linguistics which brings many new possibilities: the general principle remains the same however. Even when a map displays a tendency, it must still be possible to evaluate the map as showing a *correct* degree of likelihood or not. A weather map showing a 10% chance of rain in some area is not going to be judged accurate if in fact it rains a solid 24 hours. This also relates to purpose: if the purpose of a map is to show the explicit geographical course of a river, then showing only a tendency for rivers to occur is not going to be appropriate. The Neogrammarian argument can also be seen therefore as a disagreement about what kind of map was to be most usefully constructed for language. They argued for the geographically exact map, not just a statement of tendencies. The subsequent history of linguistics strongly suggests that they were in fact entirely correct to do this.

[3] Seurens (1999) suggests that the role attributed to the Neogrammarians is often overrated and that the move to a more scientific mode of discourse was in any case bound to happen

We will see some of these kinds of argument in more detail when we deal explicitly with language variation; we will also see one of the areas where the approach was contested most strongly, that of dialect description. But for the present we will turn away from the story of this development and consider it simply as the backdrop for the move into the twentieth century and the increasingly 'scientific' view of language and language study that has been adopted. We require our maps of language to be accurate and testable against reality. The value of approaching language change systematically and of the methodological decision that apparent exceptions to laws demanded not acceptance but further study in order to formulate a revised and more accurate law had been established beyond any reasonable doubt.

3.3 The empirical cycle

When we accept that linguistic maps of the phenomena of language are to be constructed and that these maps are to correspond as closely as we can make them to linguistic 'reality', we are committing to an empirical scientific mode of discourse. The way of talking about language, of presenting our studies of language, or formulating our questions about language, very much draws on the kinds of patterns (*discourse patterns* as we shall see later) that have been developed in other natural sciences. There are clearly differences depending on whether we are studying language or nuclear physics, but there are also many similarities and it is these similarities that largely define how modern linguistics is done. We will show that this has been extremely valuable: adopting this approach to language has moved linguistics, and our understanding of how language works, further forward in the last 50 years than was the case for the previous 2000.

The scientific style of investigation can be seen as a cycle, or spiral, consisting of observations of data, increasingly systematic descriptions of these observations, the proposal of explicit theories that seek to explain the observations and, finally, following up predictions concerning empirical observations that follow from the theories proposed. When the predictions are borne out by observation, the theory used is supported; when, however, the predictions are not borne out, then the theory is falsified, and a revised and more accurate theory needs to be worked out that includes the new observations. This cycle

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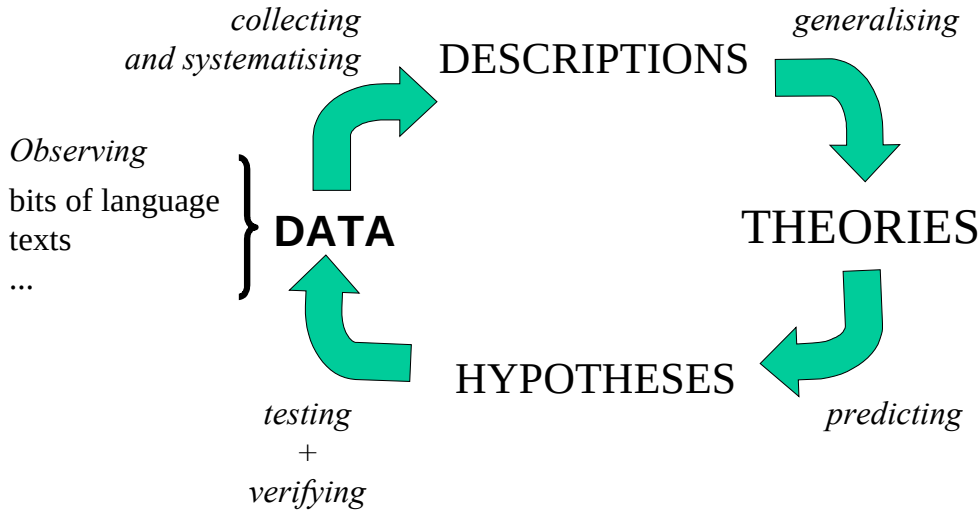
over that period. And Lass (1997, p133) draws attention to some efforts in a similar direction from the century before Verner. But, regardless of these details, the Neogrammarians provide a convenient point of crystallisation in that they clearly and loudly stated what was wrong and made suggestions about what to do about it.

is illustrated graphically below. The success of this view of linguistics cannot be overstated. It has resulted in more detailed linguistic accounts than ever before achieved in the study of language

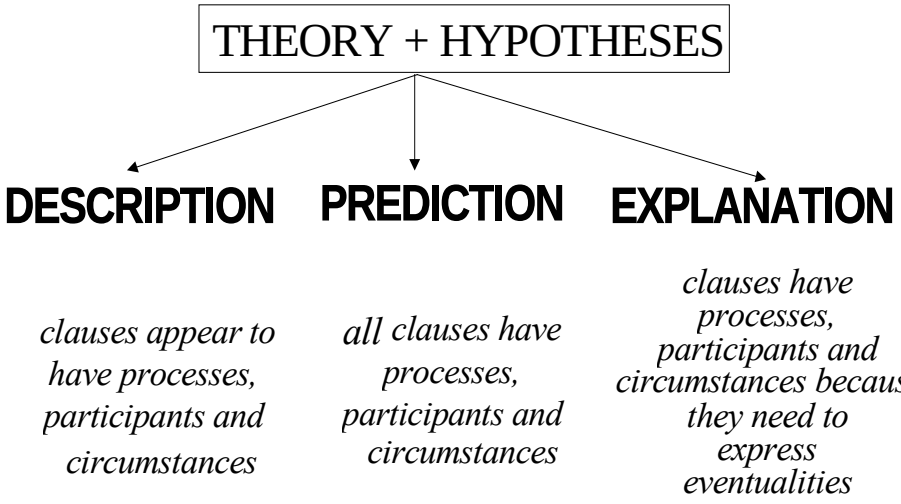


The most important consequence of the application of this scientific methodology is the development of maps and models that are sufficiently powerful to deserve the designation of explicit linguistic theories. These theories can be used for a variety of purposes. For example, they can be used to describe linguistic observations more systematically and concisely: when a theory motivates particular descriptions, much of the apparent randomness of empirical observations can be reduced and particular observations are shown instead to follow from general principles.

Moreover, a theory can be used to predict linguistic observations that have not yet been made: i.e., the theory can be used to predict how language is used or structured.

And, finally, a theory can be used to explain why the linguistic observations are as they are. Explanations can be drawn from a range of domains: they can either be internal to the phenomena being described—i.e., particular language structures may occur because only these structures result in a coherent, contradiction-free system capable of serving as a means of communicating meaning—or external, where explanation is found in, typically, social organisations and psychological organisations. For example, general linguistic patterns may be explained by saying that these structures are required to express particular social structures—or by saying that these structures are necessary because that is the way the human brain works.

We can give examples of these different uses of theory with respect to our transitivity analyses in terms of Processes, Participants and Circumstances. A simple **description** might be that clauses appear to have these three kinds of functional constituents: when we look at texts and their sentences, we see these patterns. This is a systematisation of our observations of linguistic data.



But we can go further. When we look at a wider range of sentences and texts, we keep on seeing these patterns being employed. Eventually we might build these into a theory of sentences which allows for **prediction**: one prediction might be that *all* sentences contain Processes, Participants and Circumstances. This is then not just an observation that may or may not apply to the next sentence that we look at, it is a *claim* that the theory makes. If we then find a sentence where this is not true, then the theory is falsified and we are forced to look at the facts—i.e., the set of observations—more closely in order to see if we can come up with a better theory (and, indeed, not all clauses have this pattern). Finally, we can take the step of building into our theory notions of **explanation.**

Two possible explanations for a prediction that all clauses consist of Processes, Participants and Circumstances might be: (i) clauses have the particular function of expressing events (or 'eventualities' as they are sometimes called in more technical discourse) introduced above, or (ii) the structure of our brains requires clauses to be structured in this way. The first explanation is a kind of internal linguistic *functional* explanation; the second is a kind of external *cognitive psychological* explanation. These two forms of explanation could also be combined. Linguists who construct linguistic models in the scientific mode will then often try to find examples of linguistic behaviour that either support or falsify their theories. By these means, theories are further refined and become able to cover an increasingly wide range of linguistic phenomena with ever fewer exceptions, just as was described above for the subsequent refinements of Grimm's law.

It is worth noting here that there is one kind of use of observation that is *not* linguistic: and that is the development of accounts that attempt *not* to describe and explain how language is, but rather to tell people how language *should be used*. Grammars are often seen in this light, although there are also similar works concerning style, rhetoric, etc. This was one of the first motivations for grammars being written at all (cf. Thrax's grammar of Greek from the first century B.C. mentioned again below) and continued together and entwined with grammatical description until modern times. Thus we see, in the extract shown on the left taken from the very influential Grammar of English from 1762 by Richard Lowth, a mixture of statements that could belong to a modern linguistic account—particularly those parts concerning the role and relation of 'universal grammar'—and statements that could not—in particular those concerning 'rightly expressing' our thoughts.

GRAMMAR is the Art of rightly expreſſing our thoughts by Words.

Grammar in general, or Univerſal Grammar, explains the Principles which are common to all languages.

The Grammar of any particular Language, as the Engliſh Grammar, applies thoſe common principles to that particular language, according to the eſtabliſhed uſage and cuſtom of it.

Taken from Freeborn: p386. Text 154. Lowth (1762)

As Lowth continues:

> "The principal design of a Grammar of any Language is to teach us to express ourselves with propriety in that Language, and to be able to judge of every phrase and form of construction, whether it be right or not."

Here again we find the seeds of what would become the very influential approach to language called *generative grammar* in the late 1950s and early 1960s, particularly the view of grammar as a source of 'judgement' concerning grammatical constructions, but altered completely in flavour by the relation to 'propriety'. A modern generative grammar will judge whether a sentence is grammatical or not, it will not judge this as being appropriate or stylistically correct.

The difference between *description*, which is linguistic, and *pre-* or *proscription*, which is not, is an important one to grasp because otherwise it is easy to misjudge what a linguistic grammar or any other linguistic model is attempting to achieve. We have two modes:

- description: describing how language is, systematising our observations in order to serve as a basis for proposing theories. Empirical.

- prescription/proscription: saying how language should or should not be, based on norms and social standards, sense(s) of aesthetics, 'folk'-feelings about language.

Linguistic descriptions are not prescriptive, they attempt to describe language as it occurs; the facts that language is spoken differently by different groups, differently by adults and children, and that language use can change both according to geography and to age are all observations to be described and worked into theories—they are not to be evaluated or judged as inadequate, wrong, ugly, or whatever (although we may develop theories to explain *why* they may be judged in some particular way: this is an interesting component of *sociolinguistics* and relates language use to social class, social groups, and language attitudes and awareness).

The empirical cycle as we have now seen it is also the basis underlying most linguistics texts: that is, pieces of linguistic work when written up generally have to show how they have taken a circuit or two from data, to description, to theory, to hypothesis and back to data. We will see this again when we examine text structure. Any 'empirical' piece of linguistic writing needs to show this particular kind of structure if it is to be recognisable as linguistics. This is, in short, how you must write linguistic assignments: unless you follow this particular kind of text structure (which we will go through in more detail later in the course), your writing will not be recognised as linguistics at all!

3.4 Theories as maps of the territory

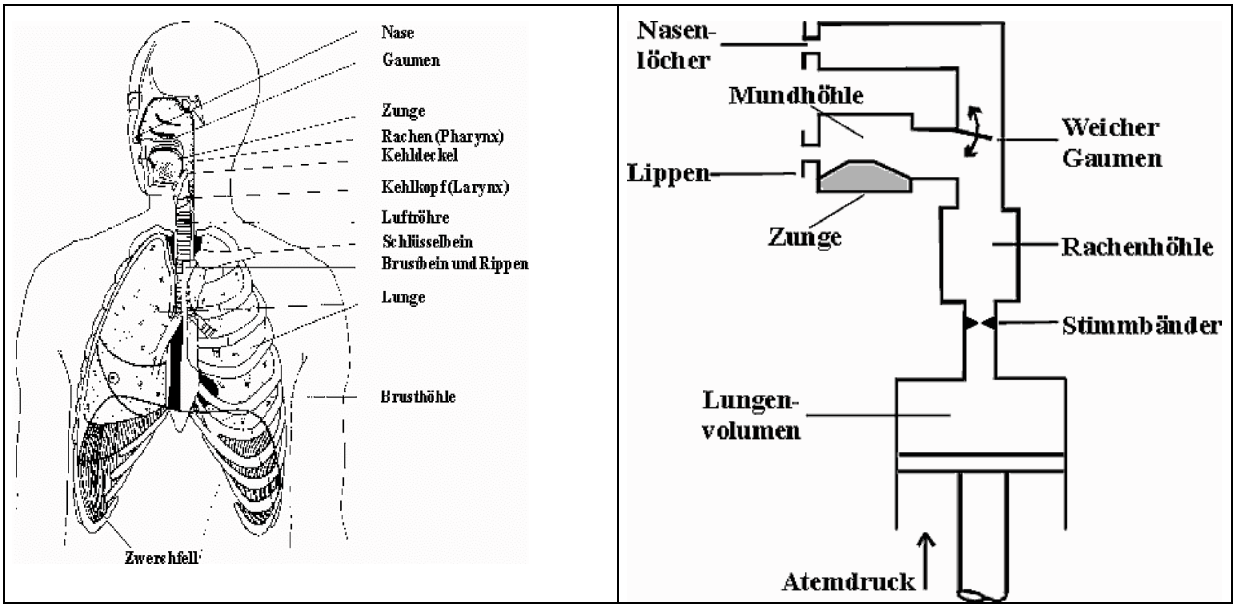
The scientific methodology is a useful one, but it should not (and cannot) be seen as a 'shortcut to the truth'! Even within a broadly scientific orientation, there are still many ways in which the scientific method can be put into action. The theories proposed follow largely from the questions that are asked; when researchers are interested in particular aspects of language, that is where the theories are developed. If the researchers are interested in the relation between language and society, then these will be the kind of explanations worked into their theories and proposals for explanations; if a researcher is interested instead in language as a formal system, then this type of explanation will be proposed.

It is important to see the role of theories, and the explanations that they offer, as tools for answering particular questions given particular starting assumptions in precisely the same way that we adopt particular maps for particular tasks. There may be different theories depending on

the questions. This is of course nothing specific to linguistics; all theories share something of this nature. It is, however, perhaps particularly important for linguistics because, as we shall see, there are still many areas where there is very active debate about what kind of theory should be adopted, i.e., about what kinds of questions it makes sense to ask about language. The map is still unclear.

There are, fortunately, many areas in which a range of very useful maps *are* clear. And it is in these areas that we will now begin our more technical and detailed work. There will be occasions where we will need to look at the same phenomenon, or the same linguistic data, applying differing maps. Each reveals a different aspect of the phenomenon under study.

As a particularly clear example we can look at the following two diagrams of the 'same' thing (taken from Karl-Heinz Wagner's introduction to phonetics course). These are diagrams that might be used for explaining something of how the sounds of language are produced.



The diagram on the left shows an anatomically accurate picture of the parts of the body that are involved: primarily the lungs (and diaphragm: the muscle below the lungs) and the complicated parts of the throat and mouth. This 'map' would be useful for the medical student, or the linguist who wants to know exactly where in the body the relevant parts are. The diagram on the right shows the same thing but with a very different intention. Here the purpose is to show those *functional* components that contribute to the making of sounds. The diagram

shows just those components that are required, and abstracts away from the exact shape and placement of these in the anatomically-correct diagram (i.e., by showing everything as simplified rectangular shapes) since the exact shape is not significant for sound production (apart from the position and shape of the tongue relative to the roof of the mouth: which is why it is shown in a rather different form).

If you did not previously know what the role of the 'diaphragm' (Zwerchfell) in speech production was, then the diagram on the left would probably not help you. But the diagram on the right might well give you a good idea—it is the 'pump' at the bottom that reduces or increases the volume of air in the lungs. The diagram shows that sounds are essentially produced by pumping air through the extended pipe formed by the connected components.

Linguistic theories and models are similar to these diagrams in many respects: they reveal certain aspects of the phenomena being studied—the territory of linguistic patterning—at the cost of hiding others. This cost is considered more than worthwhile because a good model, like a good map, can reveal many things that would otherwise be difficult or impossible to see among the clutter of differing scales and irrelevant details.

Models may also be 'static', like the diagram on the left, or more or less 'active', like the diagram on the right. The diagram on the right could actually be used to build a physical model of the human speech production system, one that pumps air in at one end and produces sounds at the other. And this has in fact been done and used as a test of the model: if it were not possible to produce sounds similar to human speech with such a model then it would be likely that something was in fact not correct. This is not to say that the human speech sound production system is identical in all its details to the map shown in the figure on the right; merely that it shares some important **functional correspondences**. Thus one way of testing such an 'active' model of a linguistic phenomenon is to 'plug it in' and see if it goes.

This is the *predictive* aspect of models described above: the model predicts that when certain conditions are set—e.g., that the model's mouth is a certain size, when the tongue is in a certain position, when the lips are open, etc.—then particular sounds should be produced. If the sounds produced by a person are examined under the 'same' set of conditions and those sounds are different to that produced (i.e., predicted by the model), then we know that the model is not yet accurate enough. The model has been *empirically* investigated and *falsified.*

We will see later that there are various ways of building 'active' models in linguistics and that it is not always necessary (or even usual) to build an actual physical object that the model defines. If we can specify sufficiently exactly how the various components of a model are to interact, and what they are to do, then we can generally **simulate** what the model is describing. Most modern linguistic theories operate in this sense: they provide a simulation of some aspect of linguistic behaviour that is being investigated. So this is more a simulation in the sense of, for example, a flight simulator computer programme, which may have various pieces of information about the landscape and airports, but also some mathematical rules concerning which way the plane will go given particular settings of its controls, wind direction, altitude, etc. These kinds of linguistic simulations can then range from the purely mathematical through to 'real' computer simulations that can, to some extent, 'understand' or 'produce' texts; these latter simulations belong to the field of **computational linguistics.**

Finally, we will mention here two sources of difficulties that can be faced when using linguistic models or theories. The predictions can turn out to be wrong for two reasons: first, the simplest to understand, the model may be wrong. This is the classical scientific method by which theories are proposed, falsified by experiment, and replaced. There are probably no models, beyond the area of basic phonetics, that are entirely correct: linguistics still has much to do in order to uncover the workings of language. And second, model may produce predictions or expectations that are inaccurate because the model has been proposed as a *simplification* and we have tried to use it beyond its limits. Again we can consider this analogously to the situation with maps of the territory. Maps are produced to a certain scale: if we have a large-scale roadmap of a town, the map will not yield useful predictions about, for example, the width of roads, or the exact size of gardens, or the height of walls. Some linguistic models are also produced as simplifications—for example, for the purposes of teaching some aspect of language or linguistics; we will see illustrations of this later.

The problem with this perfectly justifiable practice is that it may not be made particularly clear whether something is being claimed because it is a deliberate simplification that is made for a particular purpose or whether the claim is *intended* to be generally valid, part of a general model of language as such.

If we always bear in mind that *all* theories and models are produced to answer particular kinds of questions and to serve particular functions then the consequences of such inaccuracies will be kept to a minimum:

for each model we encounter, we can consider what questions the model addresses and for what purposes—if those match with our questions and purposes, then all to the good; if not, then we can seek a different model.

This has been summarized usefully by David Butt (1996) as follows. When we push this analogy with maps further it reveals some important and useful details of linguistic theorising that can too often be neglected or not realized:

> "Maps are constructed for particularly purposes; and in accordance with each purpose maps are, of necessity, constructed through specific conventions—conventions of scale; of grid lines. All these conventions are environments of choice, points about which decisions must be made in the making of the appropriate meaning, that is, in the making of the appropriate map. Some decisions or options necessitate particular choices elsewhere (i.e., they are dependent). Others can be selected over again at each scale or rank in the map's construction." (Butt, 1996:xxxi)

And finally, a point to which we will have occasion to return:

> "All the decisions we make about a metarepresentation [e.g.., a map] constitute an ideological position with respect to the description." (Butt, ibid.)

Decisions are never neutral. Just as we illustrated the use of language—particularly transitivity—in Chapter 2 as a means to bring certain information into focus and to place other information in the background, so to are the choices made in selecting particular maps/theories over others.

3.5 The tricky question of 'data'

We have now seen that the doing of linguistics should be seen as an *empirical* activity. This means, as we discussed above with respect to the empirical cycle, that we must always have access to some 'data' with respect to which theories and models are to be constructed and then tested. But what are appropriate 'data'? The question is by no means as simple to answer as one might think—after all, since we are analysing language is not the data that one should take just that, i.e., 'language'?

It turns out that the view of what should be treated as the data for empirical investigation has gone through several very different stages in the development of linguistics. This clearly demonstrates that the

question of which data to take is not one which can be answered independently of other considerations. Language is a sufficiently complex and pervasive phenomenon that it is not simply waiting there to be 'measured'—what we allow as input to the empirical cycle of building and testing linguistic theories is itself influenced by the kinds of theories and models that we are interested in building.

Consider the simple example of mapping out the contours of a mountain. If our map is to have contours every 25 metres then we do not measure the heights of individual blades of grass since this information is by and large irrelevant to our goal. This collection of height measurements might well be 'data' for some other question (such as, for example, the effect of soil acidity on plant growth), but not for our mountain mapping task. This example also serves to indicate that it the question of data is not reducible to a simple 'as much and as detailed as possible' since this could lead to a consideration of a mass of irrelevant information. The difficulty with dealing with language is that the decision as to what is and what is not 'relevant' is not clear-cut: opinions, both individually and historically, have varied and still vary concerning where best to draw the line between what is relevant and what is needless detail or, in the terms of information theory, what is just *noise*.

One of the earliest clear statements of what was to be considered as 'data' was the position set out by Ferdinand de Saussure, who is often regarded as the 'father' of modern linguistics—although as probably the case with most parents, there have been both positive and negative influences on subsequent development! A few years before his death, Saussure was asked by his university in Geneva to hold some of the courses on general linguistics; up to that time, coming as we have seen out of the tradition of comparative historical linguistics, such an introduction would have been primarily, if not exclusively, historical. Saussure, however, gradually introduced some dramatically new elements, elements which arose out of his profound dissatisfaction with the state of historical comparative linguistics at that time. He was, however, very diffident concerning his new directions and did not publish his new lines of thought.

Then, in 1916, following Saussure's death, two colleagues published with the help of a student who has attended Saussure's courses an edited version of course notes collected from his students. This was the *Cours de linguistique générale*, a book often cited as heralding the beginning of modern linguistics. This very important book introduced several concepts that are still crucial in linguistic study. First, Saussure

distinguished between **diachronic** and **synchronic** linguistics. The former is the study of language change over time, historical linguistics, and the latter is the study of a language as it is at any particular moment in its history. This dichotomy was important in that it made it clear that linguistics did not have to be comparative and historical: this was a point that needed making since in the nineteenth century, as we have seen, such studies were central. Second, Saussure distinguished between two aspects of language: **parole** and **langue**. These two terms have established themselves and remain technical terms within linguistics generally.

Parole is the language that people actually speak or write, the language that comes out of their mouths with all the possible mistakes, hesitations, changes of mind, restarts and so on that characterise natural language as it is spoken. Saussure argued that it was not useful for linguistics to study this phenomenon since it was largely determined by a great many factors that have, in fact, very little to do with language—for example, whether one was distracted by something at the moment of speaking, or whether one happens to have one's mouth full of ice-cream, or if one changes one's mind about what one wanted to say. Saussure suggested that the true and proper object of study for linguistics should not be this ragbag of acoustic events but rather the system of language underlying any such events. That is, linguistics should concern itself with the language produced by 'idealised' speakers: how speakers would speak (and write) if they were not subject to any distraction, did not change their mind midway through a sentence, had limitless memory and breath, etc. This, Saussure was sure, was essential in order to really get at what is significant about language, the central object of study for linguistics.

This underlying system of language, unaffected by the vagaries of production, he termed *langue*, and Saussure saw this as *a system of interrelated elements.* Thus language was not to be something that could be described as some set of unrelated elements, or by lists of unrelated phenomena; for de Saussure, and most linguists after him, language is instead made to work by structurally relating elements of various kinds: and it is the *structure of the interrelationships* not the elements that are significant. Analogies given by Saussure include a railway system—where it is not the unique identity of the particular train carriages that is significant, what makes the thing work is the relations between places defined by the tracks and the fact that trains go between them with some (greater or lesser) regularity—and the game of chess, where the pieces themselves are not what makes the game interesting, instead it is the configurations of pieces that occur during

the playing of a game, how the pieces are related to one another. Nowadays language is most commonly looked at in this way. Linguists (i.e., people looking at language linguistically) attempt to uncover the configurations of linguistic elements that make language work in the ways that it does, and of which we have seen a few simple examples in the previous chapters.

These dichotomies[4] provided a foundation for linguistics in the twentieth century. Linguistics came to examine most centrally the systems of languages found at some particular time in their history: it could set out about examining languages and trying to reveal their 'underlying' organisations in as much detail as required. The accounts offered then had to stand on their own empirical merits just as the laws of the physical sciences. They needed to provide a firm foundation for statements about all aspects of linguistic behaviour. Linguistic research therefore came to be characterised by the general style of investigation also undertaken in scientific empirical studies: and it is this that stands behind descriptions of linguistics as an 'empirical science'.

The restriction of appropriate linguistic data to langue has more recently come under considerable attack. Several kinds of linguistic accounts reject the restriction as unreasonable. Proponents of such accounts argue that we then have a very nice map of an idealised entity that, in fact, may have little to do with real language. It is like stipulating that all mountains are strictly conical and then mapping them as if this were true rather than looking to see what shape that really have. The simplification might still allow useful discoveries about mountains and their formation, but it should be clear that significant detail is being lost. We will see two very different

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[4] Saussure also introduced another notion that is also often cited whenever his work is introduced; and that is the '*arbitrariness'* of the linguistic sign. This has perhaps been made over much of in discussions of language, particularly those more semiotically concerned. Saussure was concerned, as with almost all attempts to do linguistics at that time, only with very 'small' linguistic signs. Such signs—such as the word for dog in German or French (or English)—may well be 'arbitrary', i.e., one language has "Hund", another "chien". But, as we have seen above, the *configurations* of linguistic choices that are revealed when we do, for example, a transitivity analysis of the Processes, Participants, and Circumstances of an entire text are virtually *never* arbitrary; they are generally highly meaningful and relate naturally to configurations of semantic, stylistic and ideological import. If they were arbitrary, then they would not be able to carry meaning and it would be fairly pointless studying them! Thus arbitrariness should not be extended beyond the scope of small signs such as words, morphemes, phonemes and the like. Nevertheless, without the property of arbitrariness at that level, language proper would not be able to get its feet off the ground: only when sign-users can build on arbitrary signs is the power and flexibility in 'word creation' present upon which meaningful configurations can be built as required rather than dictated by 'natural' events such as pointing.

approaches to this issue in the area of interaction and discourse in the next chapter.

The relationship between data and technology

Another issue important for the question of the data is technology. Differing technologies make possible different ways of collecting data. Prior to the microscope and the telescope, basic data about the very small and the very far away was not available. These technological advances changed what could be considered as data for theory building. This relationship between data and technology of course continues, and is just as relevant for linguistics. Prior to the invention of methods for recording sound, 'speech events' were very much more ephemeral—it was impossible to go back and listen to that sound, that sentence, that text, that conversation again. Prior even to writing, language events were even more singular and non-repeatable. As we will see later chapters, when we come to examine sounds in rather more detail, the current state of technology has played a formative role in the development of linguistic approaches to sounds and system systems in language—i.e., to *phonetics* and *phonology*.

When researchers began to seek ways of describing systematically and scientifically the actual sounds that people use when speaking, the state of science in the late 19th century supported some ways of access to the physical situation rather than others. At that time, for example, it was not possible to analyse the sounds produced in terms of their direct physical properties such as fundamental frequencies, duration and amplitude—three parameters which allow a complete description of the sounds being produced, and descriptions were developed in terms drawn from *how* different sounds were being produced by configurations of the tongue, lips, etc. in combination with air being passed through the various cavities of the head. This, for several good reasons, is still the usual kind of map that is used for systematically describing the sounds of language events. Technology moves on however—it is now quite possible to measure frequency, duration and amplitude and this then serves as the basic data for certain kinds of very precise inquiry into speech sounds and their use. Moreover, technology continues to move on: it is now becoming possible to investigate, for example, which groups of neurons in the brain are activated in the production of certain sounds and sound sequences and this furthers the kinds of data that can be appealed to in constructing models. Already the consideration of brain activity data has revealed interesting and previously unsuspected phenomena in the area of timing—i.e., precisely *when* a speaker must start activating certain muscles in order to get particular sounds produced; this is relevant for more detailed

theories of language learning and for explaining particular language production mistakes or disabilities.

In short, technologies provide access to different kinds of data but the question of which data one attends to cannot be solved by technology alone—this question needs to be carefully framed with respect to ideas about what we need to build certain kinds of linguistic maps.

Different views of what is to constitute the 'data' for linguistic exploration have been taken. We have already introduced one of the most famous such explicit definitions of what is to be treated and data and what is to be excluded—that of Saussure's distinction between *langue* and *parole.* For Saussure, because only the former of this pair could be relied upon to display language as such, rather than 'noise' caused by all kinds of contingent circumstances having little to do with language, then only the former was to be considered the real object of linguistic study. This illustrates the other, very important, aspect of defining what data is to be accepted: it allows a focusing of attention. Because of Saussure's restriction of study, it was possible to approach many phenomena that previously had not been accessible: quite literally they were barely visible (or audible) among the general noise of language events. This is the positive perspective; of course, from today's perspective one can also argue that it excludes important aspects of language that are *not* irrelevant to how language works. But at the time that Saussure introduced the distinction, one can legitimately maintain that the restriction was perhaps appropriate to the then contemporary state of the art.

The relationship between data and theoretical perspective

The variability of this decision as to what is to be considered data and what not can be shown very well by a further aspect of Saussure's langue/parole distinction—for although it probably sounds quite reasonable as we have discussed it so far, in fact it drew some lines very differently to how we would think of them today. The crucial nature of language for Saussure was that it was a *social* phenomenon. The systematicity of langue was that of a social system—a system of signs that exists and is 'agreed upon' by a society. The vagaries of individuals and their use of language were allocated firmly to parole. But, for Saussure, this included an aspect of language that is nowadays probably considered the clearest example of 'langue' that there is! Saussure considered grammar and syntax, because of the long discussed (e.g., by Descartes) individual human *creativity* that their use displays, properly attributable to parole and not to langue. Thus we find in Saussure much discussion of sounds and their relation to meanings,

some morphological combinations, but little about syntax and grammar as a part of the underlying, socially-grounded language system.

Fifty years later Saussure's langue/parole distinction was taken up but given a very different usage by Noam Chomsky. The terms Chomsky introduced, and which are often related to Saussure's, are **competence** and **performance.** And, again, Chomsky used these to define what was to be considered appropriate data for doing linguistics and what not. Competence refers to the abstract language system, unsullied by mistakes and non-linguistic issues; performance to the actual sounds that come out of someone's mouth or unedited sequences of words that are written. The fundamental difference between Chomsky's terms and Saussure's is that for Chomsky language was no longer to be considered as first and foremost a social phenomenon but instead rather as an *individual* ability—language was to be related not to sociology but to psychology, in particular, to *cognitive* psychology: the study of human cognitive systems. Drawing on this foundation is was then very natural that syntax be accepted as a central (for Chomsky: *the* central) component of the language system. So data for Chomsky was then the 'ideal' grammatical sentences produced by an 'ideal' speaker without considerations of memory lapses, slips of the tongue or other 'noise'.

This has again played a very positive role in several respects. It allowed a focusing on grammatical phenomena that had not previously been possible and which, together with some of the mechanisms for describing grammars that we will see in chapters below, was largely responsible for advancing our knowledge of grammar considerably beyond anything previously possible. This is the focusing role of the decision about what is to be data and what not. But, and again as with all such decisions, there were drawbacks which were already evident when Chomsky made the distinction that he did. For many years, these drawbacks were eclipsed by the very active and positive results of Chomsky's research programme but now, analogously to the situation with Saussure's distinction, increasingly many linguists are redrawing the lines of what must be considered to be data and what not.

Linguistic data for Chomsky was (at least in principle) relatively clear: he saw the proper object of investigation for linguistics as all sentences of a language that a speaker of that language would judge to be grammatically acceptable. This (infinite) collection of sentences could be easily gathered by sitting and thinking up sentences, asking others (sometimes) if they also found the sentences grammatical. The fact that people appear to be able to make such judgements so readily, for sentences that they have never seen before, was for Chomsky one of the

most intriguing aspects of the *linguistic competence* of individuals and could only be explained by a model which included a detailed system of how grammatical sentences can be constructed and understood.

For some other linguists at the time, this method of data collection appeared, with considerable justification, to be somewhat curious. Rather than 'going out and measuring' data as might be naively assumed from other sciences, the linguist could create data from his or her own linguistic competence—if you can think of a sentence and it judge it to be grammatical then it is a piece of linguistic data. Since, Chomsky argued, all speakers of a language can create and judge all grammatical sentences, it is then pointless to examine what people might actually say, a so-called **corpus** of linguistic events, because this could only reveal a small extract of what they *could* say given their linguistic competence.[5] In Chomsky's words:

> "Any natural corpus will be skewed. Some sentences won't occur because they are obvious, others because they are false, still others because they are impolite. The corpus, if natural, will be so wildly skewed that the description ... would be no more than a mere list." (Chomsky, 1962:159)

This was a dramatic change of orientation compared to the extensive data collection activities of an earlier generation of linguists and gave rise to exchanges such as the following between a data-oriented linguist of the time and Chomsky:

> "Chomsky: The verb *perform* cannot be used with mass word objects: one can *perform* a task but one cannot *perform labour.*
>
> Hatcher: How do you know, if you don't use a corpus and have not studied the verb *perform*?
>
> Chomsky: How do I know? Because I am a native speaker of the English language." (Hill, 1962:29)

This 'debate' cited in McEnery and Wilson (1996) in their introduction to what is now a central area of linguistics—**corpus linguistics**—serves to illustrate both the reliance that was then to be placed on this remarkable human capacity called linguistic competence and Chomsky's unmistakable style of argument. This orientation certainly had an overwhelming effect on the practice and theory of linguistics for

[5] In terms of the broader development of science and philosophies of science, we see here another instance of a very long-term debate: that between *rationalist* and *empiricist* approaches to obtaining knowledge.

at least two decades, and it is still taken as defining 'core' or 'mainstream' linguistics by many. Looking at the exchange more closely, however, McEnery and Wilson point out that it also:

> "underlines why corpus data might be useful. Chomsky was, in fact, wrong. One can *perform magic*, for example, as a check of a corpus such as the [British National Corpus] reveals. Native-speaker intuition merely allowed Chomsky to be wrong with an air of absolute certainty." (McEnery and Wilson, 1996:11)

Thus it has become abundantly clear over the last 30 years that 'native speaker judgements' concerning their language behaviour and the language behaviour of others have to be viewed with considerable caution. There are several aspects of linguistic behaviour which speakers do *not* have ready access to and any 'data' produced solely in this way is itself bound to be skewed in ways reminiscent of the ways Chomsky above criticised natural corpora of.

The scepticism concerning idealisations and abstractions away from the 'actual data' of a speech event has been taken up by many linguists nowadays. Any kind of distance from 'what actually happened' in a speech situation is then to be considered suspect. But this brings us naturally back to technology. Written language can be collected reliably in large quantities: the standard corpora, such as the British National Corpus (BNC) mentioned above, regularly contain large numbers of words (e.g., 100 million words in the case of the BNC), most of which are drawn from written texts. The natural wish to analyse spoken language, as might be required for the Conversation Analytic studies used above, have presented problems. It has only recently become possible to store large amounts of actual recorded spoken language in ways that make it amenable to analysis—most typically spoken language is still **transcribed**: that is, a written version of the spoken language is made which tries to maintain as many of the *relevant* features of the actually spoken sounds as possible. And, again, what is relevant and what not is a matter of theoretical decision since all written representations will be an abstraction in some degree. Spoken corpora, containing actually recorded speech and indexed and organized in a way that supports their investigation are now beginning to become available, and this will be certain to advance our understanding of many aspects of naturally occurring language.

Even a recorded version of a conversation may not be sufficient for all questions. As soon as one studies the interaction of, for example, language and gesture, or interaction and gaze (where one is looking while speaking)—both important when considering the nature of turn-

taking in conversation—then a full video-recording of the situation might be important. And, again, the technologies that allow video recordings to be accessed in ways that allow systematic large-scale study are just becoming available. Moreover, any video recording is itself an abstraction—a particular camera-angle is not the angle of the participants; so there are still real problems in obtaining fully naturalistic data.

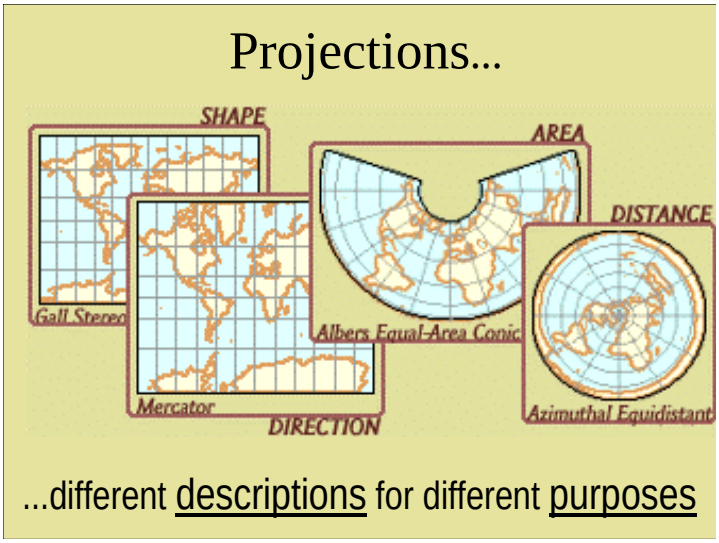
It may also not be necessary for *all* research questions. The question of data thus has to be weighed carefully. One needs always to be aware that any particular data collection abstracts away from the actual language events and that it is possible that important information has been lost in the process.

4 Contrasting maps: three examples

WHAT WE ARE DOING IN THIS CHAPTER.

We have established that linguistic theories are like maps, and that maps are made for particular purposes. They reveal particular aspects of the reality they are mapping while hiding others. In this chapter we give three examples of contrasting maps. We show how the 'same' area of linguistic detail can be looked at in contrasting ways. These allow us to take apart the linguistic phenomena in useful ways—the particular behaviour that we find with linguistic elements can often only be explained by this kind of separation. The task of the linguist then becomes to pick maps, models and theories that most usefully apply to his or her questions.

The contrasting maps used as examples here are also fundamental to many parts of linguistics and so provide a generally useful introduction to many issues that we will see reoccuring later on.



We have now argued that considering a variety of theories is precisely analogous to considering various kinds of maps: a linguistic theory can be looked at very well as an attempt to draw an accurate map of the linguistic territory being examined. And, just as with theories, the kinds of map drawn depend on the purposes assumed for the map user. Different map 'projections' reveal different aspects of the land covered: while one map might preserve the real land areas involved, another might preserve instead distances: when we are dealing with a sphere like the Earth, these different projections end up looking very different. Our linguistic maps will also end up looking rather different when they try and preserve different aspects of the linguistic phenomena they are being applied to. In each of our three examples we will see a case where some particular area of language is usefully approached by applying a range of maps—i.e., more than one theory of what is going on can usefully be applied.

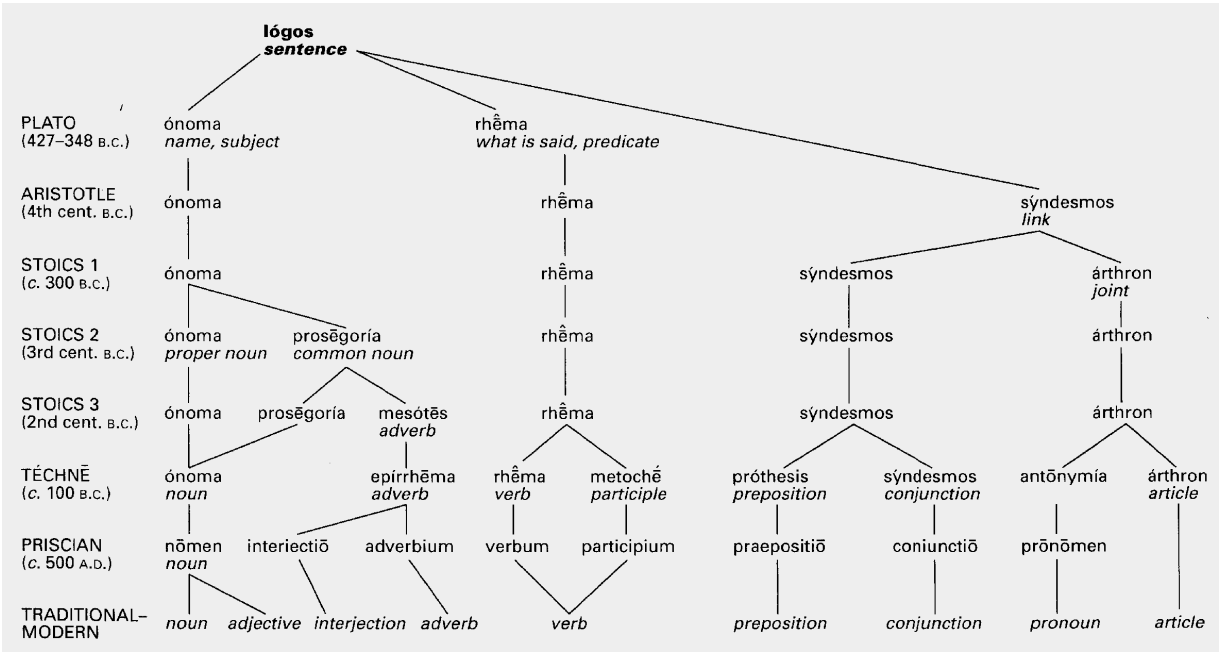
We start with perhaps the most traditional units of linguistics at all and one of the most basic distinctions between kinds of maps: an account of words and the different perspectives arising from *form* and *function.*

4.1 From words to word-classes: form and function

Western linguistics begun primarily with the attempts made by the ancient Greeks to understand the phenomenon of language—mostly Greek and its dialects. Since then, there has been a steady refinement of the kinds of units recognised as necessary for understanding how language is structured. We can see this as an attempt to map out just what units, what kinds of elements, occur in a language. Moreover, since the differences between these units are rather more subtle than that between land and water, there were attempts to clarify just what kinds of families of such elements there were. Thus, rather than a straight dichotomy between land and water, these early maps were also trying to make clear that their might be many more possibilities and interesting relationships between them: where does water transition into shallows into bog, etc.? Is a mangrove swamp to be seen as land or water? These decisions would also generally depend on purpose.

The linguistic maps begun by the Greeks started with a recognition that different kinds of words appeared in different places and appeared to do different kinds of communicative work. The table below, for example, taken from Robins' Short history of linguistics sketches some of the early stages of this progressive refinement. Beginning

from a basic division of a sentence into two parts—the ónoma and the rhêma (corresponding to a 'subject' and 'what is said of that subject')—subsequent scholars found further differences in the behaviour of 'words' so as to arrive at a list of **parts of speech** more or less corresponding to what is commonly taught today: the nouns, adjectives, prepositions, etc. of school grammar.



As emphasised above, the decisions made in the construction of these early 'maps' of the territory were also of necessity driven by their purposes. It was Plato's and Aristotle's overriding concern here to be able to formulate statements concerning 'truth' and the nature of the world. Starting with the simplest sentences, made up in Greek of just two words—along the lines of:

Mary runs.

we can note that if we take either word in isolation, then we can say little about its 'truth' or correspondence to the world, but when the two come together we have a statement, one which can be denied, questioned, argued about, thought etc. This is what we referred to in Chapter 2 as the interpersonal aspect of clauses. For the Greek model, this combination is then captured in the first division into, essentially, Subject and Predicate: two terms still very important today.

Later, by the time of what is often considered the first proper grammar in the western world, Thrax's *Grammatikē Téchnē* (around the first century B.C.), we have a different purpose: there was a driving need to teach Greek in all of the lands that the Greek empire had expanded into; so here we need the greater division and descriptions required for

a *pedagogical grammar*—a grammar that can be used for teaching and learning. However, here too, there was still a very crude notion of grammatical structure, attention was still firmly focused on the 'word'. In this, as Pieter Seuren notes:

> "When philosophising about language, the early ancient philosophers were not so different from ordinary people nowadays, who think that language is just a collection of words. There is no clear focus on grammatical rules and structures. Words is what people commonly see and have in mind when they speak about language." (Seuren, 1998:9)

And this perspective has lasted in the 'school' tradition of grammars and learning well into our own times.

But there are problems with these word classes so carefully arrived at after this long period of study—especially when we stray from the kinds of languages that played such an important role in their construction: i.e., Latin and Greek. We find that the map has limited predictive capabilities. And the reason for this lies precisely in a confusion of maps as pointed out as a danger in the previous chapter.

The situation is summarised well by John Lyons:

> "It is important to realise, however, that the traditional list of ten or so parts of speech is very heterogeneous in composition and reflects, in many of the details of the definitions that accompany it, specific features of the grammatical structure of Greek and Latin that are far from being universal. Furthermore, the definitions themselves are often logically defective. Some of them are circular; and most of them combine inflectional, syntactic and semantic criteria which yield conflicting results when they are applied to a wide range of particular instances in several languages. ... Like most of the definitions in traditional grammar, they rely heavily upon the good sense and tolerance of those who apply and interpret them." (Lyons, 1981:109)

It should not then be too surprising then that, when we consider a language with a very different kind of organisation to Latin and Greek—for example, English—we run into immediate difficulties.

Here we are in the testing phase of our empirical cycle. We have established a first map and now want to see if this is sufficient when confronted with linguistic reality. As an example of that reality, let us take some simple sentences and try to answer the question of to which word class, or parts of speech, the words in those sentences should be allocated. That is, we take the final line of the diagram above as the

map of our territory—the territory of the words of the English language—and use this to answer our question.

Consider the words ‘Bathurst’, ‘town’ and ‘country’ in the following sentences. The first sentence is:

- *Bathurst* is a *town* in the *country*

Here we should with some confidence say that Bathurst is a proper name and both ‘town’ and ‘country’ are nouns. We can justify this *distributionally* (i.e., in terms of where particular words occur and in the company of which other words) by noting that ‘country’ and ‘town’ are the kinds of word that comes after an article (e.g., the definite article ‘the’), or that can be made into a plural by placing some variant of *-s* after them (i.e., *countries, towns*), etc. But now look at the following:

- Bathurst is a *country* town
- My cousin has bought a *town* house in Bathurst
- Stop here for a real *Bathurst* experience

It would now not be surprising if you find the decision about what word class is involved a little more difficult. This is because words of the same word class are being used for very different *functions*, and if you try and describe word class in terms of functions then you will easily be led astray. While our map of the territory may be accurate, we seem to have lost a way of relating what we see on the ground with what we see on the map. It is as if the map shows a symbol indicating a group of trees and we find several actual groups of trees and do not know quite which group of trees we are standing in front of.

There are a number of responses to this problem. We can either say that particular words can belong to more than one word-class. Then ‘Bathurst’ is a proper name and an adjective, while ‘town’ is both a noun and an adjective. We are led in this direction if we start letting the function of a word play a more important role in deciding its word-class. As we can see from the diagram, for the Greeks this was not really an issue: there is a ready mixture of function and form. The descriptions of a particular part of speech are often in terms of what a corresponding word achieves in and for its sentence. This is also precisely the move that has been made prominently a number of times in recent language education. If you try and identify, for example, verbs as ‘doing words’, or words describing an action, and adjectives as words that ascribe properties, then sentences such as these above

will naturally lead you to consider ‘town’ as, sometimes, an adjective. This is an example of deliberate **map simplification**: because it is assumed that it is easier to understand what a ‘doing’ word is than something technical about distribution and form, this is adopted as the way of teaching parts of speech.

This is, however, unfortunate; it is a good example of how making things simpler can lead to an unusable map. An analogy, only a little exaggerated, would be to remove the stations shown on the underground map used in the previous chapter because that simplifies the diagram. The result is a simpler looking diagram; it just happens not to be a usable diagram. We can get a more acute sense of this problem by considering one further, more extreme example: the following famous line:[6]

“But me no buts.”

Here we have an item of a particular word class—conjunction—being made to function as both a verb (imperative form: giving an order) and a noun (and a plural noun at that!). If we allowed function to determine word-class, then we would need to say here that ‘but’ can be a verb and a noun. By this stage, we should have a feeling that something is seriously wrong. We could try and say that ‘but’ is being ‘used as’ a verb or a noun, but how do we know then what verbs and nouns are? What started as an attempt to make word-class teaching simpler ends up by unravelling in chaos; languages like English (in sharp contrast to German) do not place strong constraints on the functions that particular word-classes perform, but that does not mean that they do not have word-classes.

Examples such as this should not make us give up our classification of ‘but’ as a conjunction; indeed to do so would leave us unable to explain why this example has the effect (and affect) that it does. It is a possible English sentence, but it is not a very usual one: precisely because it plays with the difference between formal categories, such as parts of speech, and functional categories, such as Processes, Participants, Themes, etc. To deal with this rather common phenomenon, we need instead to be able to relate our formal and functional views to one another, without throwing one away at the expense of the other. We need to have both maps at our disposal, without getting confused about which is which. Thus here we have a straightforward combination of Process (‘but’) and Participants (‘no

[6] Often attributed to Shakespeare but apparently first found somewhere else: exercise for the reader!

buts'), but the fillers of these functions are not the usual verb and nouns that we typically expect.

In short, one simplification of the map of the linguistic territory which *nearly always* leads into more trouble than it is worth is precisely this omission of the difference between form and function. Weakening the distributional grounds for deciding on parts of speech looses much that has been gained over the 2000 years or so it has taken to work them out! Word classes are formal categories, they can be worked out reliably on the basis of what kinds of words can appear in what kinds of patterns; it is not appropriate to prejudge the question of the functions that they can achieve by building this into their definition. Particular word classes can play more than one function and this is sometimes an important fact that allows us to decode the distinctive meanings that are being expressed.

Returning to our first examples above, the fact that 'town' (a noun) is used to 'modify' another noun in the sentence:

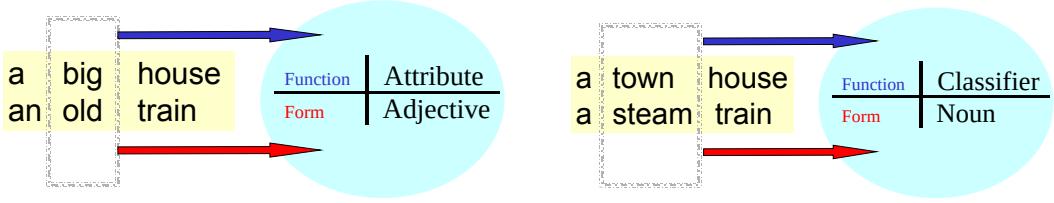
My cousin has bought a *town* house in Bathurst

is how English signals that a very different kind of relationship holds than that when a normal adjective appears:

My cousin has bought an *old* house in Bathurst

Whereas in the latter sentence we have a straightforward attribution of the property of 'being old' to the bought house, in the former there is no property involved of 'being town(-y?)'; the meaning is quite different. We can't say, therefore, "My house is town:" although "My house is old" is unexceptional.

The grammatical construction here indicates that there is a particular *class* of houses called 'town houses'. The very same difference is also grammaticized in other languages of course; for example, in German, the latter example would receive a simple adjective whereas the former is more likely to be expressed as a compound noun.



A confusion of diverse functions is still one of the most common mistakes made when considering the kinds of terms to use for language analysis. In Robins' table, for example, we see that formerly

'pronouns' were considered to be more similar to 'conjunctions' than to 'nouns'. This is not supported at all by *distributional* arguments: i.e., pronouns do not occur in the same linguistic places as conjunctions, they occur more in the places that nouns (more exactly, noun phrases: see below) occur. But the table shows that the division has been made partially on functional grounds: pronouns are like conjunctions in that they 'link' parts of a text together; but this is not a very reliable criterion for proposing a systematic treatment of word classes.[7] Here the discipline suggested by the **Bloomfieldian structuralists** presents a useful lesson—sometimes moving too quickly away from directly observable phenomena really is a slippery slope into chaos.

4.2 Two contrasting maps for sentence structure: rank vs. immediate constituency

The availability of a detailed account of what words are, to which classes they belong, etc. still does not help us with understanding the basic nature of language: in fact, it can distract us from that nature. Concentrating on words does not move us beyond seeing examples of language as items that are strung together one after the other: very much like beads on a string, or links in a chain. This kind of map of language also has a very limited application; and it can also lead to some rather dubious routes being followed. Language in fact has a radically different structure to this and it is essential to understand this difference in order to get anywhere with language analysis at all. It is this fact that motivates the importance of tree diagrams that we mentioned briefly in the previous chapter.

Some humorous examples of how language is *not* organised like beads on a string are given in Stephen Pinker's *The Language Instinct*. Consider the following utterance, allegedly from a young child:

> "Daddy, what did you bring that book that I don't want to be read to out of up for?"

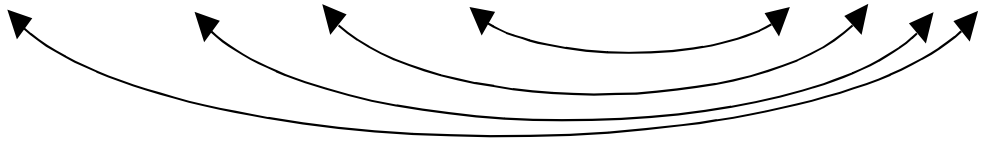
This utterance receives its humorous effect from its radical disregard of any such 'rule' of proper English style (note: *proscriptive*, not linguistic!) such as 'do not leave prepositions dangling at the end of a

[7] The concentration on words at the expense of sentences and their form and function has a long history—the same history that we saw above in the development of the parts of speech in fact; it is interesting to note that not all linguistic traditions have gone through this direction—traditional Indian linguistics (which predates ancient Greek linguistics considerably), for example, also emphasised the primacy of the sentence (cf. Robins, 1997, p173).

sentence'; but the sentence is perfectly understandable and could, quite easily, have been produced by a young child.

But if we examine this sentence a bit more closely and ask what the selection of those final prepositions—*to, out of, up, for*—depends on, we find that there is a surprising feat of memory involved; this is indicated in the following, which shows the pieces of linguistic information that the correct selection of each of those prepositions at the end relies upon. Here the arrows mean "you have to know this was said previously in order to decide to say this later".

"Daddy, what did you bring that book that I don't want to be read to out of up for?"



Thus, the selection of *for*, for example, is only there because of the selection of *what*—as it forms part of the phrase "what ... for"—and yet the child has no difficulty in remembering this over the 16 words intervening. And if that were not enough, the child is also remembering all the other dependencies at the same time. We can see clearly, then, that the selection of particular prepositions is being 'conditioned' by word selections that can be a considerable distance away in the sentence. How is it that these selections are, apparently, held in memory so effortlessly?

Here is another example cited by Pinker:

> "How Anne Salisbury can claim that Pam Dawber's anger at not receiving her share of acclaim for *Mork and Mindy's* success derives from a fragile ego escapes me."

What are the dependencies here?

We might think, if we do not dwell on it too closely, that people can produce these kinds of sentence for the simple reason that they can remember the words that were spoken and so can quickly determine the prepositions required. However, this is just not true: in fact, people are in general very *bad* at remembering exact wordings or loose sequences of words. Another example of this drawn by Pinker from Alice through the looking-glass is the following:

> "Can you do addition?" the White Queen asked. "What's one and one and one and one and one and one and one and one and one?"
>
> "I don't know", said Alice. "I lost count."

"She can't do Addition", the Red Queen interrupted.

Here the sequence of a 'mere' ten *one*s is enough to bring Alice (and the rest of us I expect) into some confusion: despite the fact that the child above (and the rest of us too) were perfectly able to remember that a *for* should come after 16 words had passed. The kind of linguistic trick shown with the dangling prepositions is not possible just because people are very good at remembering what words have been said—they are not.

Structure: the *sine qua non* of human language

There is, then, some important difference between the chain of ten ones and the prepositions stacked up at the end of the sentence. This is an important clue when we are constructing our map of how sentences work. This difference is actually one that turns out to be crucial for understanding both what language is and how it works; and that difference is *structure.* The examples of dependencies between the prepositions and the conditioning elements show a rich linguistic structuring that the simple sequence of *ones* in the Alice example does not. People are not very good at counting and remembering simple lists, but they are very good at remembering and manipulating structure. Without structure, there can be no language.

A further good example of a demonstration of the role of structure in human languages is the following, given by Noam Chomsky. Chomsky is often credited with revolutionising the entire field of linguistics when, in his 1957 publication *Syntactic Structures*, he showed how the description of linguistic structure could be made substantially more precise than had previously been the case. He also redefined some of the basic goals of linguistics and arguments persist to this day as to whether some of those new goals make sense or not. However, as with Saussure, some of the insights are certain to remain with us.

His example of the importance of structure is straightforward and does not require any particularly complex theoretical apparatus. We know as linguistic facts that we can produce sentences in English such as:

- Mary is going to the park.
- Is Mary going to the park?

Let us assume, Chomsky says, that we are visited by a group of Martian linguist/anthropologists who have no information whatsoever about English grammar. They observe the sentences above, work out that the latter appears to be a question-form of the former, and come to ask themselves how speakers of English make question-forms. It

appears to be the case that if a speaker can produce a sentence in the first form, then they can also make a question out of it: children seem to be able to do this, too. Therefore all English speakers must know how to perform this trick and, what is more, they can do it with sentences that they have never heard before. There must be some 'rule'; so our Martian linguist/anthropologists try to work out what that rule might be.

The Martians also observe, however, that speakers of English can form relative clause constructions; that is, they can take a sentence such as the statement form above, and readily produce sentences such as:

- Mary is going to the park, which is on her way to work.
- Mary, who likes skateboarding, is going to the park.

Now, our Martian visitors wonder, how do speakers of English make questions out of sentences like these that include the relative clause? Let us make, with our Martian visitors, the most simple possible assumption consistent with the facts of the first two sentences: that is, to make a question, you move the first verb you find to the front of the sentence.[8]

Actually this works very well, at least for this and very similar sentences. It is an example of a linguistic hypothesis that is to account for some linguistic data. When we have a hypothesis, we need then to check it against other data: we need to see if the hypothesis is confirmed or rejected by the other data. The hypothesis works for the first of our sentences involving relative clauses, too:

- Mary is going to the park, which is on her way to work.
- Is Mary going to the park, which is on her way to work?

So far so good: the hypothesis is confirmed. Our Martian linguist/anthropologists are happy: they may be on the track of something. Unfortunately, it does not take long to find counter-examples to the hypothesis. Carrying out the hypothesised strategy for asking a question on the second of the relative clause containing sentences above produces:

- Likes Mary, who skateboarding, is going to the park?

[8] Note that the fact that you probably find this an unusual suggestion for a rule already shows that, at least intuitively, you also know that the real stuff of language is structure!

This sentence is not very intelligible, and however we interpret it is unlikely to come close to being the interrogative form of the second sentence. So what has gone wrong?

As speakers of English we do not have too much difficulty with coming up with a better hypothesis—but notice the terms in which that hypothesis will need to be expressed. These are precisely the terms that will need to find a place in our map of English grammar. In order to describe the strategy that we use for forming questions it is unavoidable that we refer to *structure*.

We must be able to identify the clause which is the clause whose truth is to be questioned and to ignore all the other potential clauses (such as the relative clauses) which are not to be interrogated. The rule of question-formation, similarly to just about every other rule of grammar, is **structure-dependent**. In order to state the rule, we need to assume that the linguistic units being operated on possess significant degrees of structure. Otherwise, like the Martians, we will never come up with an hypothesis that stands the test of data for any time at all. The fact that this structure dependence appears to be picked up by children learning language very quickly indeed has led to a broad area of sometimes very heated debate: some, following Chomsky, suggest that the kinds of structures that the child can learn are already given by the structures of our brains; others treat this hypothesis with considerable caution if not scorn. We are a long way from knowing how the debate will turn out, but however it does, it is certain that language requires structure.

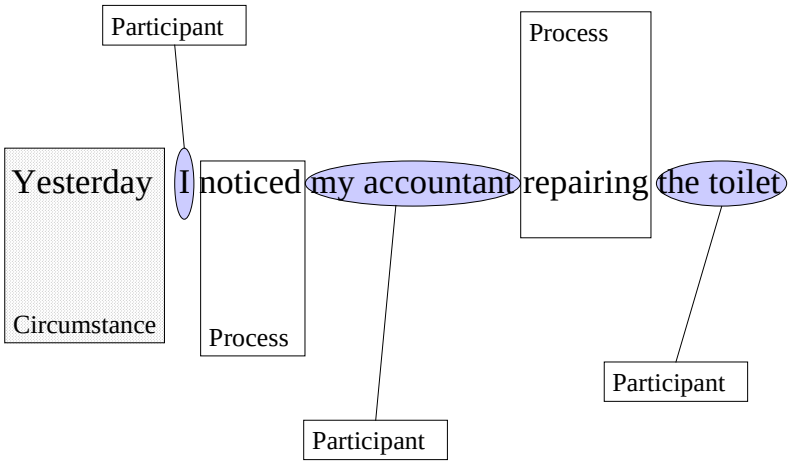
There is also a final, further slant to be taken on the notion of linguistic structure. The above examples and illustrations should have made the point that it appears to be the case that human language uses some notion of structure. In fact, the situation is much stronger than this. Structure is an *essential component of human language*: quite simply, if language did not work using structure then it would not be able to do the jobs it does for us. Communication would not work. We will examine later some of the reasons why this must be the case—particularly when we return to semantics and meaning in more depth.

The question for linguistics is then *what kinds of structure* does language employ—can we be more specific about these kinds of structures both in general, i.e., for languages as such, and in particular, for individual languages and groups of languages. And the answer is ‘yes’: we can be a lot more specific. We also need to be more specific in order to avoid confusion in both our understanding and in our analyses of texts and sentences.

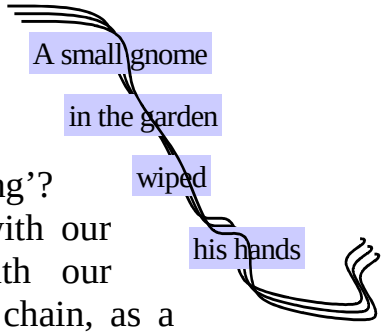
Consider the sentence:

Yesterday I noticed my accountant repairing the toilet.

If we seek the Processes, Participants and Circumstances of this sentence, it is quite easy to come up with the following:



Here, the Circumstances, Processes and Participants have been recognised reasonably well, but a crucial aspect of the meaning has been lost completely: just to what Process do the individual Participants and Circumstances belong? Is, for example, 'the toilet' a participant in the event of 'noticing'? And how can a sentence have two Processes? Is the 'I' a participant in the 'repairing'? Probably not—the problem here is not with our understanding of the sentence but with our representation of that understanding as a chain, as a series of linguistic beads on a string. This is just the same as the simple list of *one*s in the Alice example: without structure important information goes missing and we cannot recover the intended meanings.



In order to build structures, we need to have some basic grammatical building blocks, or units, with which we can build. The particular linguistic model that one is working with has as part of its job to define the linguistic units that are to be used. Different models sometimes define different units—this is not a weakness, rather another indication that sometimes different kinds of questions require different kinds of answers.

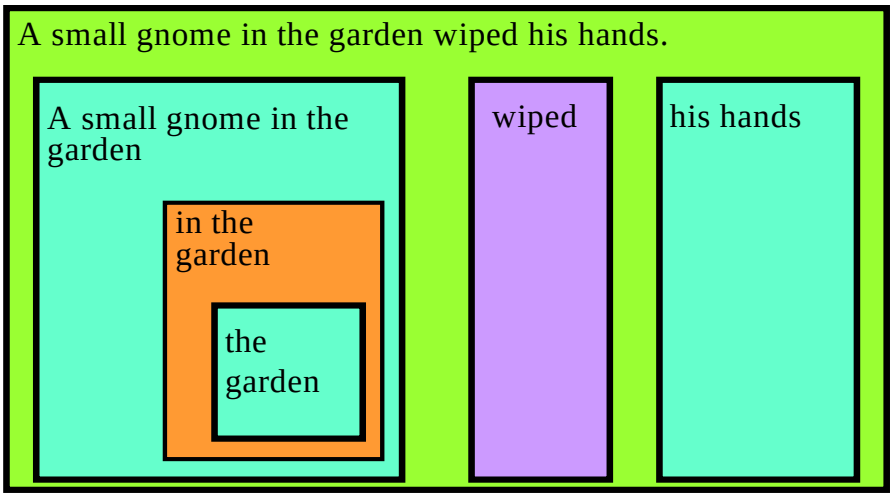
We will see further models and the units they define below, as well as indicating some of the features of the questions the models are serving

as answers to. In general, we always need to bring together the model used, i.e., the map, and the questions being asked, i.e., what we are using the map for. As suggested above, the wrong map for the task can lead to more confusion than no map at all. In the examples of this section we introduce two alternatives for talking about structure in more detail. They have points where they come together and say the same things about linguistic units, and they also have points where they diverge. The divergences are because they are considering different questions. Thus we might have two maps of the world, one of the political divisions of countries, and another of the paths of rivers; or, again, our London underground map above and a street map. In both cases, the two maps are for quite different purposes, but there may well be some useful points of correspondence as well.

Rank-based analysis: minimal bracketting

To get started, we can consider a rather simple model that already contains within it the essential aspects of structure that make human language what it is. This model suggests four distinct kinds of grammatical unit: **clauses**, **groups and phrases**, **words** and **morphemes**. These units together are called the *rank scale*; and so the kind of model/map that uses them is one which we can term **rank-based.** In the rank-based view of structure, each unit in the list is made up out of a combination of units taken from the next in the list: i.e., clauses are built up out of groups, groups are built up out of words, and words are built up out of morphemes. Thus, given any clause, we should be able to take it apart, first into groups, then each group into words, etc. This is a simple model partly because it is closely related to the functional notions of Processes, Participants and Circumstances: often, grammatical units of this kind stand in a very simple relationship to these functions—but the grammatical units are *not* themselves functional. They are motivated by the kinds of distributional properties typical of form and which we will see in more detail later on.

One common metaphor used for describing grammatical form is that of Chinese boxes, or boxes within boxes within boxes. Thus, if we take the clause spread out on a chain above right, we can re-represent this to bring out its structure more effectively by deciding which groups are present and how these all fit together to make the clause. This is shown below.



The outer box represents the clause as a whole, and each box inside this represents a group. There are different kinds of groups, essentially distinguished by the type of the main word they revolve around: thus ‘his hands’ revolves around the noun ‘hands’ and so is called a **nominal group**; in contrast, the (very small) group ‘wiped’ revolves around the word ‘wiped’ (since that is the only word there!) and is therefore called a **verbal group.**

There is one kind of group where it is not so clear what revolves around what: with ‘in the garden’ does the information revolve around the preposition ‘in’ or around the nominal group ‘the garden’? In order not to have to make an arbitrary decision, we can accept both as contributing equally to the grammatical unit by calling it a **phrase** rather than a group: ‘in the garden’ is therefore a **prepositional phrase.** It is typically the case that when analysing clauses that the Process will be signalled via a verbal group, the Participants will be nominal groups, and Circumstances will be prepositional phrases: this is, indeed, probably one of the main motivations for there being these particular kinds of structural unit in the first place.

A further, crucial property of linguistic structure is already present in our simple example and we should note it here in passing: if we look carefully at what types of groups and phrases are involved, we can see that boxes can have boxes *of the same type* within them: i.e., the nominal group box ‘The gnome in the garden’ has another nominal group box within it ‘the garden’. We will return to this phenomenon, which is called **recursion** later on; perhaps surprisingly, without this single phenomenon human language would not be possible. Any model that therefore leaves out recursion is not a model of human language.

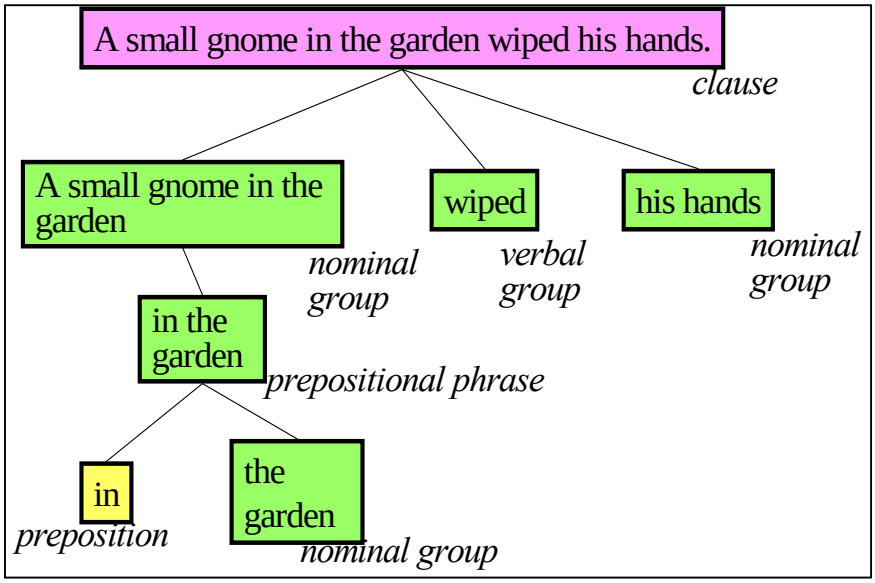
There is one further complication that can occur to our box structures when looking at real texts, and that is that it is possible to string (or chain!) together boxes of the same kind to make a bigger box of the same kind: for example, we can take a single nominal group ‘the gnome’ and chain together a further collection of nominal groups ‘the gnome, the chicken, and the fox’ into another single grammatical unit. The result is still a nominal group, but to indicate its more complex internal organisation, we call it a **nominal group complex**.

Most grammatical units can receive the same treatment: we therefore have **verbal group complexes**, **word** complexes, and **clause complexes**. Importantly, in any complex, you can only combine the *same kind* of unit. That is, a nominal group complex can only consist of a chain of nominal groups, a clause complex can only consist of a chain of clauses, and so on. Sometimes there are additional words that function to stick the elements of the chain together, or to ‘combine’ them, but the basic rule remains. So, for example, the ‘and’ (and indeed the commas—although these are not part of the syntax) in the nominal group complex above serves to combine the individual nominal groups into a chain. And in a clause complex such as:

John went to the park because he wanted a walk.

we have two clauses ‘John went to the park’ and ‘he wanted a walk’, and these are combined by the clause combiner because into a clause complex.

When we try and write out an entire grammatical structure, with all its boxes within boxes from clause down to morpheme, the resulting diagram can look rather complicated. To avoid this, in linguistics we generally use not boxes to represent the structure involved, but the tree diagram mentioned in the previous chapter. This is shown on the left: boxes inside boxes are replaced by branches in the tree.



This kind of diagram is much easier to read once the structures become more complicated. It is also much easier to focus on precisely the relationships or the

information in the tree that is of interest to the question being asked: many kinds of complex grammatical processes can be expressed relatively simply in terms of a tree configuration: we shall see some of these later on.

Language, and its interpreters, relies on structure to make sure that this kind of information, i.e., to which Process the Participants and Circumstances belong, or what modifies what, does *not* get lost. Structure allows the complex range of meanings that are made in each and every sentence to be recovered: without structure the meanings would be mixed together irrecoverably: just as with the dependencies that are lost with the beads on the string. This is, then, a further simplification in the map of language that should be made only with very great care and attention. Chains are easier to understand than structure: they are accordingly appealed to (almost always however *implicitly*) in basic introductions to language and linguistics. The 'benefit' is that they lead the learner into an illusion of having understood more than they have. If the learner never needs to know more, then the simplification is, perhaps, justifiable; but if they deal linguistically—i.e., systematically—with very much language, they will find themselves unprepared for what real language throws at them. It looks simpler, and language *does* have chain-like organisations—e.g., the string of verbs in 'I *am going to start trying to think* of an answer'—but it also has much more, more significant structure which the serious student of language needs to be comfortable with.

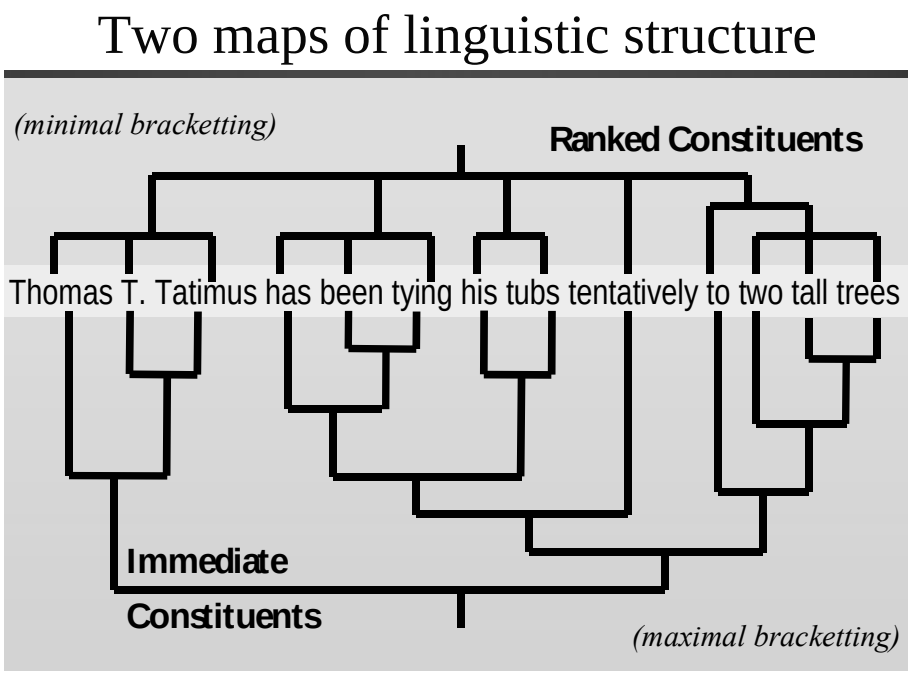
We will return to the issue of 'appropriate simplifications' later on, when we have seen more of the basic positions and frameworks needed to discuss them.

The rank-based view of structure illustrated above is not the only view of structure that could be taken. While all linguistic theories and models propose some view of structure (this, as we have suggested above, is a sine qua non for understanding human language in any case), they do not all use the same map. Some maps differ substantially; others less so.

Immediate constituency analysis: maximal bracketting

The other main view of structure that we will introduce here is called immediate constituency analysis. This is perhaps the most widespread view of linguistic structure currently in use—although this does not mean that it is the most useful for your purposes. Remember: the map must serve the task. It is necessary, however, to understand the basics of immediate

constituency (also termed IC) analysis in order to participate in linguistic discourse.



As we have seen, the rank-based view of clause structure divides up a clause into units that are often quite straightforwardly related to the transitivity roles that we have talked about before. But there are lots of other ways of cutting up a clause: and how do we know when we have cut one up enough?

Immediate constituency analysis solves this in the following way. Any linguistic unit is divided into two sub-units—its 'immediate' constituents. And then each of these is further divided into two, and so on, until no more division is possible. As might be imagined, the immediate constituency view results in many more constituents than a typical rank-based analysis. But there are no questions remaining as to whether one has divided the clause up sufficiently or not. The method is extremely systematic and can, therefore, be applied to any linguistic unit.

If we compare a rank-based decomposition with an immediate-constituency based decomposition, we can see some of the points of overlap and some of the differences. In general, the rank-based structure is 'flatter' than the IC-based structure. This makes it easier but comes at a cost. Just as there are problems that we have seen with the simple 'chain'-like view of linguistic units, there are also similar problems with the relatively chain-like (at least compared to the IC analysis) rank-based analysis. There appear to be linguistic processes which are responsive to more structure than the rank-based analysis

shows. Whether one needs the extra structure really depends on the questions being asked: it is not a question of one structure being the ‘right’ one and the other being ‘wrong’. We shall see below that a further, probably more significant difference between the two approaches lies in the fact that they are drawn from completely different linguistic schools, and so have been developed in order address different questions.

A central issue for the IC analysis is, of course, where one makes the cut. Each unit is to be divided into two further subunits—but where? We will see in the following chapter some of the methods and tools that linguists have developed for deciding where a linguistic unit should be cut; these are the ‘tests and probes’ for constituency structure. Some of the places to cut are fairly obvious, others more subtle. And, again, some will depend on which criteria, and hence on which questions, are being set.

What is sometimes problematic is the fact that authors sometimes mix up the labels when talking about the two maps. This happens so often that one just has to get used to it: in each case, it is necessary to establish which particular map of the phenomena an author is using and then to understand the terms used as applying to that map rather than another. An example of this is the use of the linguistic terms ‘verb phrase’ and ‘verbal group’. We have suggested here that verbal group belongs to the rank-scale, and is hence a rank-based category; some authors use verb phrase for exactly the same linguistic unit however—often for reasons of ‘simplification’, although the simplification this achieves is of the confusing kind rather than the genuinely simplifying kind. The two units—the rank-based verbal group and the IC-based verb phrase—in fact very rarely coincide because the criteria for their recognition, and the work that they are expected to do within the two models, is quite different.

The verbal group, as we have seen, corresponds to the linguistic constituent of the clause that contains the information about the event or activity that is occurring; that is, it is most straightforwardly associated with the Process in a transitivity analysis. In contrast, the motivation for the verbal group goes back more to the Greek view of logic and ‘predication’: that is, the verbal group is the statement that is made about, or ‘predicated of’, some subject. This traditional view is, for many purpose, perfectly valid and useful; it is also assumed by some to be so obvious as to barely require further explanation. Bloomfield in his early work from 1914 wrote:

> "Thus in the sentence *Lean horses run fast* the subject is *lean horses* and the horse's action, *run fast,* is the predicate. Within the subject there is the further analysis into a subject *horses* and its attribute *lean,* expressing the horse's quality. In the predicate *fast* is an attribute of the subject *run.*" (Bloomfield, 1914: 61)

And so here, in Bloomfield (and most other)'s analysis, the obvious first cut is into the Subject and the Predicate and the Predicate corresponds to the verb phrase. This is different from the rank-based analysis, which would have only the "run" as the verbal group and place "fast" as a parallel ('sibling') adverbial group constituent. The verbal group is playing the role of Process, and the adverbial group the role of a Circumstance (of manner) as usual.

When authors write of a verb phrase, or a verbal group, therefore, it is necessary to consider what they mean with this: for them, does the 'verbal phrase' in an example such as that of Bloomfield's correspond just to the "run" (in which case it belongs more to the rank-based model) or to the "run fast" (in which case it corresponds more to the IC-based model). We will see some of the (actually rather incontrovertible) evidence that there is some kind of cut along the lines suggested by the IC analysis in the next chapter, although it is not always necessary to use this division. Whatever names authors give to these units does not change the fact that there are two genuinely different 'notions' in the grammar that we can refer to. If we only have names for one of these notions, then our account is simpler, but also weaker.

4.3 Two contrasting maps for discourse interpretation (more difficult)

In this section, we provide a more complex illustration of the points made in this chapter and the last that we need maps of the territory in order to pose questions and evaluate answers, and that we can have differing maps of the same territory.[9] We build on our knowledge of interpreting aspects of texts to show two prominent maps that have been applied in the area of interpreting discourse. This will be our first, and so somewhat detailed, comparison of two theoretical positions within linguistics; as with most areas of study, when one goes into them in sufficient detail, the facts of the matter are often too complex for a simple 'yes' or 'no' answer. Is a map correct? –it depends what the map

[9] Thanks to Kerstin Fischer for suggesting the particular theories that we contrast here.

is to be used for. Similarly, when we examine linguistic positions, there may be several ways of evaluating the competitors. Being able to follow the debate, and to argue oneself, is one of the most important aspects of becoming familiar with the discipline of linguistics as a whole.

The first linguistic map that we will consider here goes under the name of **Speech Act Theory**, and is generally found under the broad heading of **pragmatics**—i.e., that part of linguistics to do with how and when to use certain linguistic behaviour (which is itself drawn from a particular map of the linguistic territory that we will return to below). The second map being considered here goes under the name of **Conversation Analysis**, and is often set up as a rival approach that some are reluctant to place within linguistics at all! This is therefore strongly linked back to the 'ideological' component of map/theory choice that Butt alludes to above. Both approaches are concerned with a central concern of linguistics however, as well as one that is particularly important for our text-based view of linguistics here: how do we find out what meanings are to be associated with particular utterances?

Space precludes providing very much detail on either approach; and useful introductions that go into more depth are available in some of the standard introductory pragmatics text books (Yule's *Pragmatics* provides a particularly gentle overview for example). What we will focus on here is making both models comprehensible as *alternative maps for the territory concerned with finding meanings*. We will see the basic premises that each account rests on and the means each employs for testing whether its claims are 'correct'. We will also see that it is not possible simply to 'combine' the two approaches; in certain respects their basic tenets are not compatible. They are fundamentally different kinds of maps. However, we will also see that we learn something from this: neither approach on its own can really claim to be *the* answer. Any real progress in understanding theoretically how meanings in discourse work will need to draw on the insights from both of these maps. This will be an important point to keep in mind when following up either or both of these approaches later in your studies.

4.3.1 Speech Act Theory (and pragmatic interpretations)

Speech act theory is a very influential approach to a particular range of problems in linguistics. It is concerned with how we can interpret sentences to get at what the speaker wanted to achieve with them. This

rests on a basic distinction used in this kind of map: that between *literal* meaning and *intended* meaning.

Speech act theory was first set out in the classic text by the philosopher of language John Austin called *How to do things with words* from 1962. Austin drew attention to the fact that certain utterances appeared to do considerably more than just report some state of affairs in the world, they actually change those states of affairs in some way. The simplest examples of this are expressions such as:

- I pronounce you man and wife.
- I christen this ship the Titanic.
- I arrest you in the name of the law.
- I bet you 10 Euros that it will rain tomorrow.

When said by a speaker invested with the proper authority, each of these utterances leaves the world in a different state to how it was before; in the first case, the people involved are married, in the second, the ship receives a name, in the third, someone has been caught up in a very complicated area of discourse indeed—the discourse of legal action, and in the fourth, the speaker and hearer have committed themselves to an exchange of funds depending on future weather conditions.

Austin called these kinds of utterances **performatives**, since they appear to actually perform some action. If we think about the kinds of meanings we saw in the previous chapter, there appears to be something extra happening here: we seem to have wandered off the edges of our map into uncharted waters.

Austin argued that such performatives were *doing* something rather than simply representing something, and therefore could not be considered as true or false (the usual kind of statement that logicians would make about statements of fact) but rather could only be described as **felicitous** or **infelicitous.** If, for example, the sentence ‘I pronounce you man and wife’ were uttered by someone selling drinks in a bar, or by a salesperson in a shop, then the speech act would not have as a consequence that a marriage has occurred: that is, the speech act is *infelicitous* and so does not perform. Austin sets out what he terms *felicity conditions* that have to be met in order for a performative speech act to successfully have its intended effect. These can naturally get quite complicated when they attempt to pin down precisely just when a speech act is going to perform as intended and when not.

The notion of speech acts, which are particular linguistic utterances that effect the world, makes up in this view the particular details of the linguistic map in question. If we have a map about geographical details, then there are certain details that we would use to compose the map: rivers, mountains, forests and so on. For Austin, and those who followed him in this area, the details of the map are made up of performative speech acts and the various kinds of felicity conditions that need to hold for them to be effective. The map is one that has several desirable features in that it explains that certain kinds of linguistic objects will have very special effects. These effects could not be read off other maps that were available at that time.

If one has a good map, or rather as in this case, a good system of cartography that promises to let you make good maps, then there is a natural tendency to apply it as much as possible. Austin develops an argument whereby his map is seen as applying to *all* utterances, not just those obviously special ones listed above. This step was aided by the fact that it is actually quite difficult to identify *linguistically* just what utterances are 'performatives' and which not. Several 'tests' were suggested, but it is certainly not simple. For example, why is

I bet you 10 Euros it'll rain tomorrow

a performative and

Yesterday I bet you 10 Euros that it'd rain tomorrow

not? Or, if one says:

I'll be there tomorrow without fail.

or even just:

See you tomorrow!

why are these often just as effective as promises as the utterance:

I promise to be there tomorrow.

So rather than continue seeking some final watertight indication of just when an utterance was to be considered a performative and when not, Austin took the logical step of saying that *all* utterances have both a meaning and a **force** and that the performatives were simply examples where their performative force was being made particularly clear.

Thus, for Austin, all utterances were to be considered simultaneously as three kinds of act:

- the **locutionary** act: the utterance itself and its direct meaning

- the **illocutionary** act: the particular force that the utterance has as making a statement, of offering, ordering, promising, etc.
- the **perlocutionary** act: the particular effects of an utterance on an audience depending on the particulars of the speech situation and that audience.

This is then is then a still further refined map of the linguistic territory. For each utterance examined we can seek to fit it into the categories provided by the map. There have been some quite influential extensions of the map: for example, Searle (1969, 1975) set out the beginnings of what has since become quite a complex taxonomy of the various kinds of 'performatives' that can be carried out.

Where this becomes particularly relevant for us, though, is in the next step, the use of the map to explain particular details of linguistic behaviour. Most straightforward views of speech acts need to face the question of how the illocutionary force, the particular force of an utterance, is found by its hearers. This is then the general problem of *interpretation* of texts as manifested on the microcosm of individual sentences. If we have some particular sentence, and we can recover its *locutionary* act—that is we know basically what it means in terms of its ideational and experiential meanings—how can a hearer recover its actual force as intended in its context of use. Speech act theory typically looks at this as a problem of how to proceed from the literal meaning of an utterance in order to find its situated interpreted meaning. This sounds both straightforward and necessary: after all, if we are marking hills on our map, then we need to know how to recognise them—and this is generally quite simple, we measure changes in the height of the ground, something that is quite directly observable. The hill corresponds to the illocutionary force that we must somehow recognise and the measured height corresponds to the locutionary act itself.

But in fact, when we attempt this for linguistic utterances, it turns out to be problematic. It often appears that the literal interpretation of an utterance gives rather little information that could guide us reliably to an answer. We can see this particularly well with areas such as 'requests'. For example, a performative of this kind could be explicitly communicated with an utterance such as:

I hereby request that you pass me the salt.

This kind of utterance is, of course, extremely rare; it appears that *most* utterances do not directly signal their illocutionary force in this way at all, which is, according to the speech act map, a little curious. Why

would language users develop such a roundabout system whereby they regularly say something that is different from what they actually intend? Theoretically this is unpleasant—we are left not being able to mark the hills on our map after all.

The situation is shown to be very difficult indeed when we consider all of the ways of making requests. Consider the following (small) set of possibilities:

- I hereby request you to open the window.
- Open the window.
- Please could you open the window?
- Would you mind possibly opening the window?
- Might it be possible for you to open the window a bit?
- Whew! It's really hot in here isn't it?

All are requests, but they have very different grammatical forms. Some appear to be questions, some are statements and so on. On what basis does the hearer go about interpreting these utterances as the intended request speech acts?

This is an area that lies right at the centre of pragmatics and there is much continuing discussion on how we can get from literal interpretations to intended performative meanings. One common approach is to make as explicit as possible the range of *clues* in the literally produced utterance that show that further interpretation is required to find what the speaker actually wanted. So, including an explicit performative verb like "promise" or "request" would be a clear clue; others, a little more subtle, would be to include words like "hereby", to use present tense, and so on.[10] But these only take one so far and, if we only mark on our map utterances that are recognisable in this way, would leave many, probably the vast majority, of real performatives literally off the map.

A further interpretative tool is offered by the so-called **Gricean Maxims** of cooperative interaction, named, again, after a philosopher of language (cf. Grice, 1975). The Gricean Maxims are also central to many approaches to pragmatics and so are relevant to an introduction to linguistics in their own right. The maxims suggest particular behavioural styles that speakers apparently follow when being

[10] These are called **Illocutionary Force Indicating Devices**, or IFIDs, in the pragmatics literature.

coooperative and which hearers assume speakers to be following when they try to interpret what a speaker says. This means that language users can appeal to the maxims to make good assumptions about how to proceed in the interpretation of an utterance and also gives ‘warnings’ when perhaps more interpretative work is going to be necessary.

The maxims are:

- the maxim of **quantity**: only say as much as is required to be informative, not more;
- the maxim of **relevance**: only say something that is relevant;
- the maxim of **quality**: only say something that is true;
- the maxim of **manner**: say things clearly, without obscurity and ambiguity.

This means that given an utterance, a hearer can inspect whether or not the literal interpretation appears to follow the maxims of cooperative linguistic behaviour. If it does, then the hearer can interpret the utterance literally; if it does not, then the speaker probably wants to communicate something more so the hearer should go looking for a further possible interpretation.

The Gricean Maxims would apply to some of our examples above as follows. In the sentence “Would you mind possibly opening the window?” there is a literal interpretation involving a question about a conditional minding of some event. This literal question is seeking information about the mental state of the hearer. But the hearer can then reason that this is not very relevant to what is going on and so must be attempting to lead him or her somewhere. Then, somehow, the hearer might reach the conclusion that perhaps a request is being made because the form “would you mind” occurs in requests quite often. Similarly, the utterance “ Whew! It’s really hot in here isn’t it?” could similarly be seen as violating some maxim of relevance or quantity (i.e., it can hardly be informative if both speakers are sitting sweating in the heat) and so trigger a helpful response other than something less than cooperative such as ‘Oh.’.

In both cases we see a further essential underlying cartographic principle (or ideological orientation) of this particular map of language use: speakers and hearers are seen as ‘linguistic problem solvers’ who reason rationally about what their utterances can and should mean. The map contains basic features, such as categories for particular types of speech acts and for distinctions between, at least, locutionary (literal)

meaning and illocutionary meaning, as well as some set of mechanisms for saying how we can get from one to the other.

While the Gricean maxims give some kind of starting point for when to look deeper for an interpretation, they do not provide much help with just how one is to go about that. Moreover, it is clear that in many natural communicative situations, the cooperative principle is not a very good one to follow—always being so direct might be good for philosophical discussions, but would leave many natural interactions in a very unsatisfactory state with not very happy interlocutors. This is particularly relevant in the case of the requests that we saw above: here we appear to have many violations of the maxims occurring not as special cases, but rather as the normal ways of doing things. We regularly see violations of the maxims of manner since the request is, apparently, not being made in a clear and direct fashion.

This has been studied extensively from the perspective of **politeness**. Leech (1983), for example, suggests that the cooperative principle must be accompanied by a host of other principles, such as a 'tact' principle, which regulates somewhat the rather blunt interaction that might be predicted from the cooperative principle. Probably the most detailed treatment of politeness linguistically is that of Brown and Levinson (1987). Here the different ways of getting something done are related to various strategies for being polite, which are in turn related to different preferences for use in various cultures. This gives some motivated deviations from the simple application of the Gricean Maxims. As an example, Brown and Levinson set out the following strategies for getting someone to lend someone a pen. The alternatives are set out in a kind of '**decision tree'**—i.e., at each point in the tree there is a decision to be made about which strategy to follow. The tree describes the *theoretically possible* alternatives, and is not intended to represent the reasoning steps that a speaker actually goes through when thinking about how to obtain the pen that they need.

The decision tree starts with the basic option of whether to say something at all. One could, for example, attempt to obtain a pen simply by giving a graphic performance for the need for a pen, hoping that the cooperative 'hearer' will notice this and spring to

the rescue. Alternatively, if the speaker is going to pursue the goal by linguistic means, then there are still several options. One can draw attention to the fact that one does not have something that one needs without explicitly request-ing any help: this is termed an ‘off record’ request in that the speaker cannot be held to account afterwards for having requested a pen, they hadn't. The hearer may only have being helpful. Alternatively, the speaker can go ‘on record’ and actually explicitly via linguistic means request a pen: this can either be direct (probably the closest that we would come if we were following the Gricean Maxims) where the speaker baldly demands a pen or rather more indirect via a so-called ‘face saving act’. The notion of **face** is one that is crucial when considering politeness and refers to the wish of speakers to maintain their status, self-image and respectability in their respective social groups.

For example, there is always the possibility that the hearer has to decline the request made of them: for example, he or she may not have a pen, or may be using the pen at that time, or might not want to give up their valuable pen, and so on. And in such a situation, if a speaker baldly demands a pen, then the answer could only be “No” or “I can’t”. Brown and Levinson show that it is almost a cultural ‘universal’ that speakers and hearers generally take considerable pains to avoid such interactionally ‘confrontational’ situations. In order to achieve this they adopt more complex politeness strategies, employing face saving techniques, that allow the potentially face threatening situations to be circumvented.

These techniques divide into two subgroups: the positive politeness techniques and the negative politeness techniques. Positive politeness techniques assume that the addressee will generally be disposed to say yes and to go along with the request, and so prepare the conversation for this. Negative politeness techniques make the opposite assumption and prepare the conversation for a painless rejection. That is, a speaker’s negative politeness request “Could you open the window” prepares the ground for the addressee replying with “Oh no, sorry, I can’t because I am not tall enough” or some other reason. In essence, the negative politeness strategy asks a question that checks *whether the preconditions for the addressee being able to comply with the request hold*. Clearly, if the preconditions do not hold for some reason (e.g., the addressee is not tall enough to reach the window), then the addressee cannot be criticised for not complying with the request and so face is saved on all sides.

One of the most interesting aspects of Brown and Levinson's study is that they provide maps of the differing preferences for politeness strategies across differing cultures. Some societies appear to favour positive politeness strategies and so would adopt these as the usual way of making a request; other societies (such as Britain) adopt negative politeness strategies and so adopt these for requests. The possibilities for intercultural misunderstandings here are, of course, extremely great. Adopting a politeness strategy that is inappropriate for a particular culture will typically be perceived not as a failed attempt to be polite, but simply as being rude.[11] This is therefore a good example of a useful linguistic map to take with one when travelling!

4.3.2 Conversation Analysis

A very different kind of map of linguistic possibilities is provided by Conversation Analysis. Whereas, as we have seen, the speech act map seeks to explain how particular literal meanings are re-interpreted as intended speech acts by means of a rational subject reasoning about the things said, Conversation Analysis wishes to place the creation of meaning not in individual heads but as a result of social interaction (cf. Heritage, 1988). This can probably be made most clear with the following simple example. Consider the following extract from a dialogue:

A: Shall we go see a film tonight?

B: I've got this terrible essay to write.

We have no problems recognising B's utterance as an answer to the question raised by A's utterance. But, how do we do this linguistically? If we look at this in terms of the speech act map, we need to recognise that B's intended act is to answer the question. But there is nothing particularly linguistic in B's utterance that states 'I am answering your question', there is no linguistic clue such as the 'hereby' or an explicit performative verb such as 'I hereby answer your question'. We could say this, but it is extremely unnatural and would only be used in rather special circumstances.

Conversation Analysis takes the position that it is not necessary to work out such intended meanings on the basis of literal meanings. What we need to do instead is to consider such linguistic behaviour as what it is,

[11] One must, of course, be quite cautious with statements about 'cultures'—there is naturally a high degree of individual variation as well as variation across particular groups (subcultures) within any culture.

a *structured interaction*. B's utterance is not then an answer to A's question because of some linguistic features that it has, but rather because it *follows a question sequentially.* In short, we have a pair of utterances—which in Conversation Analysis is termed an **adjacency pair**—in which the first one predicts the second. In a question-answer adjacency pair, a question being asked will predict that the next utterance will be an answer to that question. Similarly, in a greeting adjacency pair, a greeting will predict a greeting in reply:

A: Hello!

B: Hi.

For Conversation Analysis theorists, it is this sequential positioning of turns in a conversation that provides the greatest cues concerning how a linguistic utterance is to be interpreted.

Of course, it is in general possible for a speaker to diverge from this conversational structure at any point. One might not answer a greeting, or ignore a question. The Conversation Analysis account does not say that this is impossible, but rather that *if* a speaker chooses to do this, then it will of itself have specifiable consequences. Not answering a greeting, for example, might indicate that one speaker is not currently on friendly terms with the other. There has now been considerable work in this approach, and quite extensive sequences of 'turns' have been investigated. Natural interaction is more than sequences of questions and answers, but the basic notion of sequence plays a central role for all linguistic phenomena approached with this map.

Conversation Analysis was developed primarily by a group of sociologists interesting in linguistic interaction and its social function. These sociologists were working within the framework of **ethnomethodology** (Garfinkel, 1967), which is essentially concerned with investigating those 'methods' that members of a culture use to create, negotiate and exchange understanding. These methods are made visible in actual dialogic interaction when we examine closely precisely what speakers say and when they say it. In contrast to the speech act view, where much happens behind the scenes in acts of private reasoning, the conversation analysis view has direct instructions for interpretation placed in the utterances and in those utterances precise placement in sequence. Ethnomethodologists were led to this viewpoint by their belief that it is not possible for hearers to calculate to the final detail what actually speakers mean with their utterances, there could always be a need for some further explanation or some further making explicit of background information. Then, since this appears not to disturb hearers at all, and both speakers and hearers interact in dialogue

without constantly seeking further details, some other interpretative mechanism must be playing a role. And it is here that Conversation Analysis invokes notions of sequence and its use by speakers' methods for showing that agreement has been achieved or for achieving agreement if it has not.

This map is therefore very different from that of speech acts. It includes an essential component that was not mentioned in the speech act map at all—sequences of turns in an interaction—and does not posit basic categories such as literal meaning and intended meaning. For Conversation Analysts, meaning is arrived at in interaction; for Speech Act theorists, meaning is arrived at by calculation based on various rules of interpretation. The Speech Act map is one oriented towards reasoning and the individual; the Conversation Analysis map is one oriented towards interaction and the social. It is probably fair to say that Conversation Analysis has resulted in the most detailed and varied analyses so far achieved of fine-scale linguistic interaction.

4.3.3 A contrastive example of use: "indirect speech acts"

We can show the very important differences in the linguistic stories told according to the two kinds of maps considered in this section by returning to the notion of requests. As has been indicated, according to the speech act theory, we are trying to place certain linguistic behaviour onto our map by means of specifying what situational conditions must hold for a request to take place *felicitously* and what linguistic features the locutionary act must show. In contrast, according to Conversation Analysis we will be trying to place that same linguistic behaviour onto our map by means of considering particular sequences of linguistic utterances and their properties.

We have seen how there are some problems with the speech act approach in that it requires us somehow to calculate that a request is intended. Similar to the examples above, consider the following even longer set of 'ways of requesting' that someone should close the door (taken from Levinson, 1983: 264-265):

I want you to close the door.

I'd be much obliged if you would close the door.

Can you close the door?

Are you able by any chance to close the door?

Would you close the door?

Won't you close the door?

Would you mind closing the door?

Would you be willing to close the door?

You ought to close the door.

It might help to close the door.

Hadn't you better close the door?

May I ask you to close the door?

Would you mind awfully if I was to ask you to close the door?

I am sorry to have to tell you to please close the door.

Did you forget the door?

Do us a favour with the door, love.

How about a bit less breeze?

Now Johnny, what do big people do when they come in?

Okay, Johnny, what am I going to say next?

According to the speech act map, each of these utterances has a literal interpretation and, somehow, this is to be examined so that the intended illocutionary force of a request to carry out the action of closing the mentioned door can be recovered. This is a very varied collection.

The approach that is taken up according to the Conversation Analysis method is different. Rather than starting with the particular literal interpretations and attempting to see how these could give grounds for believing that a request has been made, the Conversation Analysis method looks at linguistic data—in their case naturally occurring dialogues—and examine those places where the speakers and hearers *themselves* understood a request to be being made. This has enabled Conversation Analysts to say a considerable amount about just when and how a request is going to be recognised.

Particularly problematic for the speech act account is the fact that most requests turn out to be 'indirect'—i.e., they do not directly request but use some other utterance (such as 'Could you close the door?'). Levinson suggests that this can be treated by employing the Conversation Analysis notion of sequencing as well as follows.

In addition to the simple adjacency pair organisation mentioned above, Conversation Analysis has also revealed more extended sequences in natural dialogues. Particularly relevant here are sequences that *prepare* the dialogue participants for some 'upcoming' kind of interactive event. For example, it is unusual, at least in British English, to just suddenly

end a telephone call: speakers tend to expend energy in making sure that the call is indeed over and that both participants are ready to put the phone down. This is achieved by a preparatory sequence of turns that repeatedly give opportunities for the other to say something new. When nothing comes, the speakers move on to the next stage and actually say good bye. The 'good bye' pair is called a **Closing** and the sequence leading up to this is a **Pre-Closing**.

A variety of these so-called *pre-sequences* have been studied and each have their own distinctive set of properties. Here we focus on **pre-requests**: that is, sequences of turns that are typically found leading up to the making of a request. These draw on some general properties that hold for all pre-sequences—first, that the speakers and hearers are aware of where the sequence is heading, and second, that the distinct paths that an interaction can take can be valued differently by the participants, some paths, or 'trajectories' are preferred, while some are dispreferred. Speakers will take considerable pains to avoid following a dispreferred trajectory. Refusing a request is a strongly dispreferred conversational situation and so all interactants take steps to stop the situation arising; this is similar to the description of politeness given above.

Pre-requests can be seen as a complex interactional structure involving four slots, as illustrated in the following dialogue fragment:

PRE-REQUEST	A	Hi. Do you have uh size C flashlight batteries?
GO AHEAD	B	Yes sir.
REQUEST	A	I'll have four please.
RESPONSE	B	[turns to get them]

Typically the question that is brought in the first slot, the pre-request proper, addresses just the conditions that concretely might hold in the situation and which would stop the request being fulfilled.

> "What is checked in the pre-request is what is most likely to be the grounds for refusal; and if those grounds are present, then the request sequence is aborted." (Levinson, 1983: 358)

Then, since both speakers are aware of where the pre-request is headed it can be 'short circuited', both positively and negatively. That is, the cooperative interlocutor can move the action that would have occurred in the fourth slot (the response proper) forward to occur in the second slot. This is, in fact, the most preferred way of managing the

interaction. The second most preferred is to move an explicit offer into the second slot (i.e., 'Do you have Cheddar cheese?' : 'Yes, would you like some?'). And the least preferred is the full form spelled out above.

- most preferred:
  - Position 1: pre-request
  - Position 4: response to non-overt request
- next preferred:
  - Position 1: pre-request
  - Position 2´: offer
  - Position 3: acceptance of offer
- least preferred:
  - Position 1: pre-request
  - Position 2: go ahead
  - Position 3: request
  - Position 4: compliance

4.3.4 Summary and conclusion

We have just seen with our illustrative discussion of Speech Act Theory and Conversation Analysis that the two approaches in fact draw rather different lines around what they would consider as data. The two maps certainly place in doubt the centrality of Saussure's *langue* as the basis for linguistic theorising despite the commonplace adoption of this premise throughout most of the 20th century. The former map concentrates very much more on individual linguistic units such as sentences and clauses, the latter very much more on linguistic interaction in which speakers exchange linguistic units. What is data for one map, could be noise for the other.

Maps are different, are ideological, carve up territories differently, and sometimes need to be combined. As Levinson notes particularly about the contrast illustrated in this section:

> "… we should note that sequencing constraints in conversation could in any case never be captured fully in speech act terms. What makes some utterance after a question constitute an answer is not only the nature of the utterance itself but also the fact that it occurs after a question with a particular content—'answerhood' is a complex property composed to sequential location and topical coherence across two utterances, amongst other things;

> significantly, there is no proposed illocutionary force of answering." (Levinson, 1983: 293)

Thus, whereas the speech act analysis requires decoding of actual meaning from literal meaning; the Conversation Analysis approach just needs to recognise functional slots in a turn-sequence. And this latter is often helped explicitly by speakers who apparently design their pre-requests precisely to get their addressee's desired compliance with the unstated request in the second slot. This is a very different perspective in that it does not require that the pre-request has some particular literal force that can then be analysed/interpreted further: part of its meaning *is already* that it functions as a pre-request.

We can relate this back to the kinds of meaning discussed in Chapter 2. There we saw that not all grammatical patterns serve to *represent* some state of affairs. Particularly the interpersonal grammatical patterns did not represent, they *enacted.* That is, if the order of the Subject and the Finite element was appropriate for a question, the clause did not then 'represent' a question, it *was* a question. We see a similar foregrounding in our map here: the Conversation Analysis method requires that we view our data from the perspective of action and interaction rather than from that of representation. And, certainly, when examining natural dialogues and conversations as our linguistic data to be explained, to do anything else would be guaranteed to leave much that is crucial out of the picture.

Further reading and references for Chapters 3 and 4

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A very readable account of earlier ideas about which language was the oldest is given in:

Umberto Eco (1995) *In Search of the Perfect Language.* Fontana Press. (translated by J. Fentress).

Further readings

The debates and interpretations about Saussure’s thought naturally continue; one recent reappraisal of his work is the following, which

questions many of the simplistic criticisms that have been brought subsequently against the particular positions attributed to the *Course in General Linguistics*.

Thibault, P. (1996) *Re-Reading Saussure: the dynamics of signs in social life,* London and New York : Routledge.