# The History of the Concept 'Phrase' in linguistics Part 1: Why early linguists had no idea what a phrase was

## 1    A brief introduction to the phrase

In this lecture we will be looking at the history of syntactic analysis since the earliest attempts to study human language, roughly 3000 years ago, with particular attention to the notion of the phrase. Though this did not appear in works on grammar until the 20th century, and therefore will not make an appearance in the present lecture, it is such a central concept of modern syntactic work that it is important to understand what its origins are and to discover how it could be absent for nearly 2900 years of linguistic investigation.

Before we get into the history, however, it will be useful to provide a brief introduction to the concept of a phrase so that we will be able to recognise it if it does make an appearance in the works we will review.

Simply put, the phrase is a unit of syntactic structure which is bigger than the word. For example, a fairly basic analysis of the sentence 'the cowboy reached for his gun' claims that 'the cowboy' is a noun phrase made up of the article (determiner) and a noun and that this is followed by a verb phrase 'reached for his gun' made up of a verb followed by a preposition phrase. This preposition phrase is constituted of a preposition followed by a noun phrase, which in turn is made up of a determiner and a noun:

(1)      [NP the cowboy] [VP reached [PP for [NP his gun]]]

As we can see here, each phrase is made up of more than one word and so phrases are clearly bigger than words.

However, this claim needs some clarification if we are to understand the current concept of a phrase. In particular, we should concentrate on the lower and upper boundaries of the concept so as to delimit the part of structure of a linguistic expression we are concerned with. Let's start with the lower boundary.

1.1    How many words make a phrase?

One potential point of confusion arising from the statement that phrases are bigger than words is that this gives the false impression that phrases must contain at least two words. This is not so, and it is perfectly possible for a phrase to be constituted of a single word. For example, the following sentence is made up of two phrases, each containing just one word:

(2)      [NP He] [VP fired]

The noun phrase contains just a pronoun and the verb phrase a single verb. Yet these are still phrases, as can be seen by the fact that they occupy the same positions in the sentence as the equivalent multiword phrases do in (1).

We can make sense of the claim that phrases are bigger than words if there is a fundamental difference between the concepts 'word' and 'phrase', and current syntactic theory has a

number of ways in which to do this. Here, however, we will stick to the most well-known (and longest lived) one.

Syntactic theory generally considers syntactic objects to be structures, as opposed to strings. In a string, we simply place one element after another, like beads threaded onto a necklace as in the following diagram:

(3)



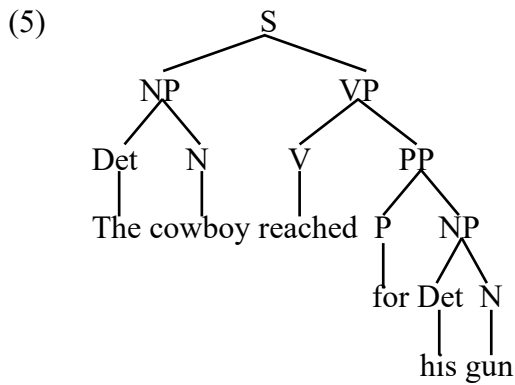*the necklace view of syntactic objects*
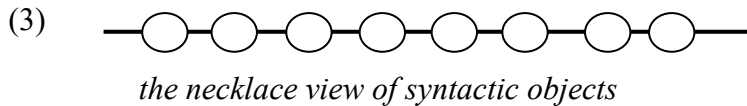
 If we imagine the beads in the above diagram as words, we can see how this might be said to represent the organisation of a linguistic object, such as a sentence. Note that, apart from the whole set of words taken together, this object consists of just words; there is no grouping of the words to form any other unit besides the words.

The structural way of conceiving of syntactic objects takes a different approach. Here a better metaphor for the organisation of words into sentences is not a necklace but a crib mobile: the kind of toy that parents hang over a baby's crib in the hope that it will distract the child long enough to get the cleaning done. In such a mobile, individual 'interesting' objects are suspended on strings from crossbars which in turn are suspended from other crossbars:

(4)



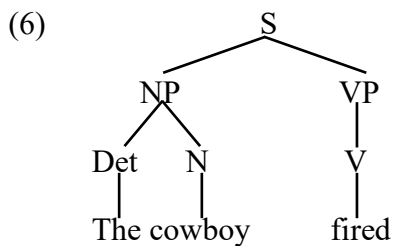*the crib mobile view of syntactic objects*
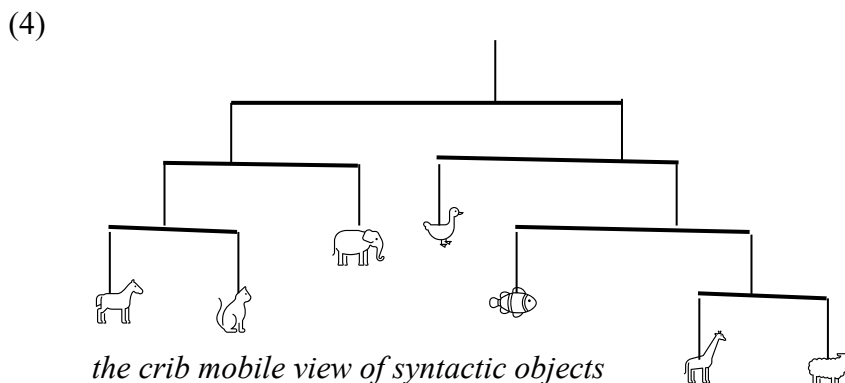
Again, we can view the toys in this diagram as words making up a sentence. As opposed to the necklace view, the crib mobile view envisages groupings of words hanging off the threads: those which are attached to the same crossbar. Note that crossbars can also be attached to other crossbars and so the words are grouped together into subgroups within bigger groups. And these bigger groups can be subgroups of yet bigger groups. This is what is meant by structure.

In syntax, the typical way to represent a structure is with a tree diagram, which has a number of things in common with the crib mobile, but which adds a more features to enable a more accurate description of a syntactic structure:

(5)

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                    S
          ┌─────────┴─────────┐
         NP                   VP
        ╱  ╲               ╱    ╲
      Det    N           V       PP
       │     │           │      ╱  ╲
      The  cowboy     reached  P    NP
                               │   ╱  ╲
                              for Det  N
                                   │   │
                                  his gun
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The main addition we see here are the labels (N, Det, VP, etc.), which are placed at the junctions where lines (referred to as branches, in accordance with the 'tree' metaphor used) meet. These labels indicate the category of the objects they represent. Apart from the actual words at the very bottom of the tree, there are three other possibly distinct objects: the sentence, at the top of the tree; the category of the words, just above the words themselves and the phrases in between these.

We are now in a position to make sense of the claim that phrases are bigger than words, even if the phrase is one word big. One of the most important relationships that a tree diagram, such as in (5), represents is inclusion, sometimes referred to as 'dominance' when discussing a tree structure. We say that a node on a tree includes all the elements which appear underneath it, connected to it by a branch or series of branches. For example, the node labelled VP includes the V, the PP, the P, the following NP, the Det and the N. The notion of inclusion (dominance) indicates what constitutes the node under discussion. So, the string of words 'reached for his gun' constitutes the VP as each of these words is included in the node labelled VP. It is obvious that, in a very real sense, a node is bigger than the one it dominates: the VP is bigger than the PP, for example. However, suppose the VP is just constituted of a single intransitive verb with nothing else in it. This would be represented as follows:

(6)

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                  S
          ┌───────┴───────┐
         NP               VP
        ╱  ╲              │
      Det    N            V
       │     │            │
      The  cowboy        fired
```

Note here that the VP dominates the V node containing the verb 'fired'. As we have just pointed out, a node which dominates another is bigger than that node. So, the VP is bigger than the V even though there is no other element inside the VP. One can think about it like this: the VP can contain any amount of material from a single verb to many more words. Thus, a VP could always 'potentially' contain more words than it might actually do. The V node, by contrast, could only ever contain one word. Therefore, the VP must be bigger than the V. To use another metaphor, a ten litre jug is bigger than a one litre jug, even if they both only contain one litre of liquid. This is because the ten litre jug can contain nine more litres of liquid, whereas the one litre jug is completely full.

1.2    How high do phrases go?

We have just discussed the lower bound of the phrase, concluding that the smallest phrase contains a single word. We now turn to consider the upper bound of the phrase: where do phrases stop. As indicated in the previous tree diagrams, the sentence is represented by the symbol 'S'. The fact that this is not called some sort of phrase, like NP, VP, PP, etc., indicates that it is not considered to be a type of phrase. Indeed, this was the view for more than 25 years in which tree diagrams were used to represent syntactic structures. However, at some point in the 1980s, this view began to change, mainly as a result of trying to generalise the kind of rules involved in generating such structures. Under the assumption that the same sort of rule which generates all phrases is involved in generating the sentence, it has become common to refer to the sentence as some sort of phrase. We will look into the details of this in a future lecture.

Even without considering the question of what kind of phrase a sentence is, there are still some considerations which demonstrate the sense of seeing sentences are phrases rather than something different. It is obvious that there is a fundamental difference between words and phrases. As pointed out above, a phrase represents a potential for any number of words, even if it happens to contain only one. Words are constituted of morphemes rather than words. From this perspective, sentences pattern with phrases: they are constituted of potentially any number of words.

One might argue that sentences contain things that phrases do not, such as subjects. However, this may not be correct, and it has been argued that phrases can contain subjects:

(7)      a       I consider [that he is foolish]
         b       I consider [him to be foolish]
         c       I consider [him foolish]

In (7a), the bracketed part of the example is a finite sentence, containing the sorts of things by which a finite sentence can be recognised: it is introduced by the word 'that'; it has a nominative subject 'he' and there is a tensed verb. In (20b) we have a different kind of sentence, an infinitive, containing the sorts of things that infinitival clauses can be recognised by: a non-finite verb and the appearance of the marker of the infinitive 'to'. However (20c) also contains something which appears to be clause-like, in as much as it contains a subject (*him*) and a predicate (*foolish*). However, it contain nothing that can be used to identify any kind of clause: it cannot be introduced by a word like 'that'; it cannot have a nominative subject, it contains no finite verb and in fact it contains no non-finite verb either, the verbal element being entirely absent, as is the marker of the infinitive.

(8)      a   *   I consider [that him foolish]
         b   *   I consider [he foolish]
         c   *   I consider [him is/be foolish]

Therefore, it would be hard to argue that this constituent is any kind of sentence. Some have argued that what this constituent is, is simply a phrase which has a subject; an adjectival phrase in this particular instance, though there are candidates for other kinds of phrases which have subjects:

(9)      a       I consider [NP him a fool]
         b       I ordered [PP him off the ship]

c        I made [<sub>VP</sub> him wait]

All in all, then, it seems that clauses and phrases are not so distinct and therefore should be treated as equivalent.

To conclude this section, we will end by providing a definition of a phrase so that we can see if such a notion appears in any form in the historical periods we will review.

> **Definition of a phrase**
> A phrase is any syntactic unit of hierarchical structure which contains one or more words. These words may constitute other phrases within the larger one.

In this definition, the word 'syntactic' limits its application to a specific domain and does not extend into other domains, such as texts, discourse or conversations. These have their own units which are independent of syntactic ones. Within the domain of syntax, however, the phrase is any unit which is not a word. Multi word phrases can, and typically do, contain smaller phrases, which by the definition will also be made up of one or more words.

1.3    Why do we assume that there are phrases?

One obvious reason to think that syntactic expressions have hierarchical structure is simply the intuitions that speakers have. So, if we take our example sentence in (5), intuition tells us that the words 'the cowboy' go together whereas 'cowboy reached' do not. However, it is possible that these intuitions are based on semantic considerations rather than syntactic ones: it could be that we feel 'the cowboy' goes together because the determiner is semantically associated with the noun and this does not necessarily mean that they form a syntactic unit.

Other reasons to believe that expressions are structured into syntactic units are based on distribution: the sets of possible positions within expressions that we find certain elements. The idea is that if something has a distribution, it must have some sort of grammatical reality as it is the grammar itself which governs such phenomena. In other words, phrases could not have grammatical distribution unless there were grammatical rules which established this distribution. Therefore, phrases must be units of the grammar as there are rules which refer to them. Simple demonstrations that phrases have distribution come from observations about replacement and pronominalisation:

(10)   a       The cowboy/The tall stranger in a ten gallon hat reached for his gun.
       b       I avoided the cowboy/the tall stranger in a ten gallon hat.
       c       The whole town hid from the cowboy/the tall stranger in a ten gallon hat.

(11)   a       The cowboy/He reached for his gun.
       b       I avoided the cowboy/him.
       c       The whole town hid from the cowboy/him.

In (10), we see that in all the places where we could put the words 'the cowboy' we can replace it with 'the tall stranger in a ten gallon hat'. This shows us that these words distribute in English expressions and therefore they must be units that the grammar organises. (11) is similar, though this time the phrase is replaced by a pronoun.

There are other phenomena which have been claimed to demonstrate the need to refer to phrases in grammatical descriptions, though we will not go through them here. Suffice it to

say that most linguist are convinced by such arguments and few these days reject the claim that sentences are structured into phrases.

## 2 Classical Linguistics

Within the classical period of the study of language, there are three distinct areas concentrating on one specific language for each: Sanskrit, Greek and Latin. We will look at these separately.

### 2.1 Sanskrit

The Indian grammatical tradition is the oldest one known, dating back several hundred years before the first Greek scholars of language. In the main, this tradition was motivated solely for the purpose of maintaining Sanskrit, the language of religious texts and incantations, which had inevitably undergone changes over time into the languages spoken and was effectively 'dead' by the time of the first Sanskrit grammarians, in that it was no one's mother tongue used for everyday communication. In this way, Sanskrit had the same status for ancient Hindus as Latin has had for centuries in certain branches of Christianity. Therefore, the works of this tradition mainly concentrated on the correct translation of the sacred texts into those it had developed into, the older forms of modern Indian languages such as Hindi, Gujarati and Punjabi.

Similarly to how Muslims view Standard Arabic, the ancient Hindus thought of Sanskrit as the divine language and therefore it was important to pronounce it correctly when used in incantations and rituals. Subsequently, emphasis was placed on pronunciation in the grammatical writings and therefore the main focus of Indian linguistics at the time was on phonology.

Sanskrit, like the other classical languages, was morphologically rich and complex. Like most ancient works on language, the emphasis of Sanskrit grammarians also tended to be on the word and therefore morphology also figures high in their concerns.

For example, Sanskrit verbs are morphologically marked for: subject agreement on the basis of person (1st, 2nd and 3rd) and number (singular, dual and plural) – giving 9 different forms; tense (present, aorist (past perfect), future, imperfect and perfect) – giving 5 forms; voice (active, middle and passive) – giving 3 forms and mood (indicative, optative, imperative and conditional) giving 4 forms. Thus, in principle there could be up to 540 different forms of the same verb. In the following, I present a few examples to show the complexities of the morphological system, which included not only suffixes, but also infixes and reduplication:

(12)   a     naya-nti
             lead-3.pl (=they lead)
       b     naya-si
             lead-1.sing (=you lead)
       c     naya-ami
             lead-1.sing (=I lead)
       d     naya → neṣya-nti
                 lead+fut(infix)-3.pl (=they will lead)
       e     naya-ya-nti
             lead-caus-3.pl (they make someone lead)

Furthermore, the language also demonstrated stem vowel alternation with different morphological forms (like the English examples, *sing*, *sang*, *sung*), which it inherited from its Indo-European ancestors (as did English).

In addition to this, nouns were marked for number (singular, dual and plural) and 8 different cases (nominative, accusative, genitive, dative, instrumental, ablative, locative and vocative). Also inherited from Indo-European, nouns had different declension classes, based on the stem vowels, which affected the forms of these morphemes.

Clearly, then, Sanskrit was an incredibly rich morphological language and this was a very obvious aspect to concentrate on for the early Sanskrit grammarians.

Generally speaking, when a language has a rich verbal and nominal morphological system, this frees up linguistic aspects such as word order. The morphology encodes much of what less inflected languages use word order to indicate, such as grammatical functions (subject/object) and so words can be placed in various orders without loss of information as to how to interpret the sentence. Word order is then freed up to express other aspects of meaning such as topic and focus. We find this in a language such as Hungarian:

(13)   a   János oda-ad-t-a            Mari-nak a   pénz-t.
           John  to.there-give-PAST-3.SING Mary-DAT the money-ACC
           'John gave the money to Mary.
       b   Marinak adta oda János a pénzt.
           'It was to Mary that John gave the money'
       c   Marinak odaadta János a pénzt.
           'As for Mary, John gave the money to her.'

It is quite difficult to detect such nuanced meanings from texts, particularly for non-native speakers of a language. Therefore, at a distance, it might seem that word order is not particularly consequential and is perhaps just an artifact of having to pronounce words in a linear manner. It is no wonder, therefore, that early Sanskrit grammarians paid relatively little attention to syntactic issues; they were occupied enough with matters of pronunciation and word formation to make their own lives even more complicated. Of course, if syntax is not a large part of the study, then syntactic notions are not likely to develop. Thus, it was hardly likely that notions of groups of words, such as the phrase, were not conceived of during this period of linguistic investigation.

It should be pointed out at this point that the failure of Sanskrit grammarians to indulge in syntactic analysis is not a reflection of a less developed level of scholastic investigation. On the contrary, works by the Sanskrit grammarians, notably Panini (circa 400 BCE), were highly developed and contained theoretical notions (such as the phoneme) which would only be rediscovered in the late 19[th] century. Moreover, Panini's grammar reached a level of formalisation and technicality which would not be matched until the mid-20th century. Some modern linguists (Kiparsky 1993) have pointed out that Panini's grammar contains rules which could be seen as similar to the kind of phrase structure rules that emerged in syntactic theory in the late 1950s:

(14)   S → NP VP
       VP → V NP
       NP → Det N

These kinds of rules generate phrase structures such as the ones introduced in (5) and (6), stating the sentences break up into an NP followed by a VP and the VP breaks up into a verb followed by an NP, etc. Kiparsky's representation of one of Panini's rules seems to indicate a striking similarity:

(15)    A $\rightarrow$ A A /C-D

This rule says that a morphological element (A) can be replaced by two instances of that morpheme when it appears in a certain context (between a C and a D). However, this should be taken with a pinch of salt. First of all, the notation of this rule is Kiparsky's not Panini's and it was obviously made to mimic the kind of phrase structure rules of early generative grammar. Second, this is a rule of morphology, essentially one determining reduplication, not a syntactic rule at all. Therefore, the existence of the rule does not indicate a germ of the idea of phrase structure. Like all of the Sanskrit grammarians, Panini had very little to say about syntax and certainly would not have been aware of any notion of rules which combine words into units bigger than the word. It is possible that the notion of a sentence was conceived of, though I suspect this would have been more of a semantic notion than a syntactic one; a sentence being a collection of words which expressed a certain meaning.

All in all, then, there is no evidence that the early Indian linguists paid very much attention to syntax and the notion of the phrase did not enter their grammatical writings. This was the result of a combination of factors concerning the language and the interests of the grammarians themselves. Sanskrit, being morphologically very rich, displayed a good deal of word order freedom, which served to hide syntactic processes in operation in the language and the grammarians, being occupied by the task of describing a language which was not their own mother tongue in order to preserve it for the use of religious ceremony, rather than exploring its nature and discover the system which underpins it, as modern linguists attempt to do, were not inclined to go beyond the more obvious aspects of the language such as its word forms and pronunciation.

2.2    Ancient Greek

The Greeks were the first Europeans to turn to the study of language. The Greek alphabet, which is one of the first phonetic based written systems, was developed around 800 BCE. Before that, they employed a syllabic system, starting sometime in the second millennium. Such written systems demonstrate a certain scholastic awareness of the phonetic aspects of language. The term 'grammar' itself derives from this earliest period of Greek interest in language and merely referred to the understanding of the letters of the alphabet. In this sense, the early Greek 'linguists' were similar to the Sanskrit grammarians in their concentration on sound system of the language under study.

Things are a little more complicated, however, with the Greeks as there wasn't an independent dedicated study of language until much later. The study of language, as did virtually everything to do with human knowledge, came under the broad umbrella of 'philosophy' and so when the Greeks were contemplating aspects of their language, they did not consider this to be any different to the contemplation of the rest of the universe. So, while they undoubtedly came up with notions which form the basis of the rest of the study of language in the west to the present day, there was no specific 'grammar' written until about 100 BCE. Contributions by philosophers such as Socrates, Plato and Aristotle tended to be jumbled in with other topics such as logic (the study of valid argument) and rhetoric (the study of effective speaking).

It does not help that most of the work of the early Greek thinkers was destroyed in its original form and we now only have knowledge of it through secondary sources. The earliest surviving Greek text on language we have is Thrax's grammar *Téchne*, which dates from about 100 BCE, though there is currently some doubt about the origin of this text due to the fact that no reference to it can be found writings on grammar until the 3rd century CE.

Despite the centrality of Greek linguistic thinking to current linguistic science, providing us with many terms and concepts that we use today, it was in fact rather limited in certain respects. First, the Greeks were only interested in Greek and so never set the study of language in a wider sphere. As with Sanskrit, Greek was a highly inflectional language with a great degree of word order freedom, and, in line with Indian grammarians, this meant that they didn't venture much beyond the word: phonetics and morphology taking up most of their interest. Thrax's grammar, for example, did not even mention syntax. Their lack of interest in, or perhaps awareness of, syntax does not bode well for our search for the foundations of the notion *phrase*.

The Greeks did come up with the distinction between subject and predicate, which one might think of as a basic division of a sentence into two parts – rudimentary phrases, perhaps. But this distinction was first made in logic, and logic was not the study of language, *per se*, but the study of the use of language, i.e. the validity of argument. Plato is credited with the first identification of two major parts of a sentence, a nominal one (ónoma) and a verbal one (rhema) and Aristotle added a third part, which is these days taken to be 'conjunct'. However, there is no indication that these notions were to be associated with anything other than words and were given morphological definitions. This tradition carried on throughout most of western grammatical traditions and is still present in current 'school grammars' where subjects and objects, for example, might be identified as those WORDS which have a certain form (nominative and accusative in most European languages) or which trigger the appearance of certain morphemes on the verb. Even in a language like English, a given noun might be said to be the subject of a sentence because its form in some other language (typically Latin is given as the appropriate reference) would be nominative. Moreover, if you exchange that word for a pronoun, the pronoun would be nominative as pronouns are the only words in the language which maintain such a distinction:

(16)    a    The *farmer* is resting.
        b    Agricol-a    requiesc-it.
             farmer-nom resting-3.sing
        c    *He* is resting

Note that from this point of view, the notions of 'subject' and 'predicate' do not necessitate the analysis of the sentence into two parts; they are just two elements which appear in a sentence, even if they are essential elements of the sentence. Thus, it is quite possible to maintain such notions without the notion of a phrase developing directly out of them.

It is true that the Greeks were aware of a relationship which is normally termed subordination, a term which these days is associated with hierarchical structure. But given that they saw words as being subordinate to other words, it doesn't seem that they had the same view of subordination as we do in current syntax. Instead, it seems to be closer to the modern notion of dependency than constituency: a word is subordinate to another if it is related to it semantically in some inferior way.

At the level of the sentence, the Greeks were more interested in its functional properties than its formal ones. Thus, the identification of sentences into questions, statements, commands, etc. was about as far as they got.

While Greek thinking about linguistic issues can be seen to start in earnest during the periods of Plato, Socrates and Aristotal, it wasn't until the Stoics, a movement started by Zeno around 300 BCE, that the focussed study of language was initiated. A major innovation at that time was the concentration of the linguistic dichotomy of form and meaning: 'the signifier' and 'the signified'. This is a distant forerunner of work in early 20th century Europe by Saussure, which we will come to in due course. But note again, a concentration on this issue, as it does with Saussure, tends toward a focus on words. It is words where the form-function dichotomy is most readily apparent. This can be seen in the fact that much of the grammatical work of the Stoics concentrated on issues such as the meaning of the Greek tense system, as indicated on verbal inflections. Another aspect of the Stoic approach to linguistic study was its concentration on literary style and particularly the notion of 'proper style'. This is probably the start of prescriptivism in the grammatical tradition and this tends to rather a negative perspective for any real advances in linguistic investigation. To some extent, this perspective was adopted for similar reasons that the Sanskrit grammarians came into being: the Greek language was, naturally, changing and the Stoics wanted to maintain the language of the classic literature, such as that of Homer. Once again, prescriptivism tended to focus on issues of 'correct' pronunciation and style rather than on issues such as syntax, which tend to be too complex for the purpose of prescriptive dogma.

Thrax's grammar, though not even mentioning syntactic issues, does introduce the notion of word category, of which there are claimed to be eight. It is not clear whether this is an innovation of the grammar or whether it is merely referring to some already established ideas. But again, this is not necessarily anything to do with syntax as the notion of word category is also central to morphology. There is also a long standing tradition of coupling word category to meaning and while this faces severe difficulties, these are often ignored and meaning based definitions of syntactic categories persist to the present day. Given the lack of attention to other aspects of syntax, we can safely conclude that Thrax's inclusion of word categories in his grammar had nothing to do with syntax. The complete absence of the notion of a phrase can be seen in Thrax's division of language into two parts: words and sentences. There were no intermediate building blocks between these two. As to the definitions of these two things, words were taken to be meaningful elements which were indivisible and sentences were things that expressed complete thoughts. In other words, the elements of grammar were given semantic interpretations rather than grammatical ones.

Following Thrax, Apollonius Dyscolus wrote particularly about syntax. However, the syntactic relationships he was concerned with were to do with agreement, concord and what would today be considered as dependency. The first two of these are concerned with morphology, specifically the forms of verbs and adjectives used in conjunction with nouns. The latter has to do with semantic relationships, which the earlier Greeks had subsumed under the notion of subordination. To give an example:

(17)  tachy    elthen paidion onesen hemsa
      quickly come  boy      us      helped
      'Quickly coming up, the boy helped us.'

In Apollonius's analysis, the adverb *tachy* (quickly) is associated with the verb *elthen* (come), which in turn is associated with the verb *hemsa* (he-helped). The form of this verb (third

person singular masculine) associates it with *paidion* (boy). The accusative form of *onesen* identifies it as the object of *hemsa*. What we see is that individual words are connected to eachother in various semantic and morphological ways, but at no point do these connections unite them as a syntactic unit. It is not 'quickly coming' which is connected to 'the boy helped us', or there is no distinction between the connection of the object to the verb and the subject and the verb which might indicate a verb phrase.

In conclusion, the Greeks has about as much idea of phrases as did the Sanskrit grammarians, and probably for similar reasons. The highly inflecting nature of the language allows for word order freedom and concentrates attention to analysis at the word level. Certain strategies of analysis, such as tying it to meaning, also encourages grammarians to overlook the role of syntax in sentence formation. For the majority of the history of Greek interest in language the fact that this was bound up with other aspects of 'scientific' investigation, such as logic, rhetoric and literary criticism, diluted serious study of the principles of sentence formation and therefore there was nothing that would have possibly pointed scholars in the direction of anything close to the notion of a phrase.

## 2.3 Latin

We won't have a lot to say about the contribution to the study of language that the ancient Romans made, mainly because there are not too many of them. Whilst being brilliant military strategists and exceptional engineers, the early romans were not great philosophers and tended to defer to their Greek predecessors on academic matters. This can especially be seen in their writings on grammar, which tended to be an exercise in trying to force descriptions of Latin into the framework developed by the Greeks for their own language. In this endeavour, Thrax's grammar was particularly influential. Latin is similar to Greek (and Sanskrit) in being highly inflecting, though it isn't identical. But the tendency of the Romans to take Greek as the basis of the analysis of Latin meant that they didn't really develop linguistic thought much further than the Greeks had got.

Early Latin grammarians, such as Varro, did at least attempt to further the kinds of debates that the Greeks had entered into, but these were mainly matters of etymology and unimportant for our particular interests in syntactic analysis. But it is the later Latin grammarians, particularly Priscian (around 500 CE) whose work was most influential in the times that followed the fall of the Roman Empire.

Priscian's 18 volume Latin grammar was entirely based on Thrax. There were minor alterations made, for example the lack of a definite determiner in Latin meant that Thrax's categorisation of words could not be wholly imported, though Priscian maintained Thrax's analysis of the eight categories for the most part.

The importance of the Priscian grammar, however, was not the contribution it made to human understanding of human language, but the role it had in post-Roman Europe, which we will discuss in the next section. The Priscian grammar was taken to be the basic text for the teaching of Latin across Europe and, eventually, in the Americas. This was an important endeavour for two reasons: Latin was the language of western Christianity, which became the sole source of academia at the time, and it was also the lingua franca, essential for political and economic dealings across the various states.

Priscian's grammar, however, did contain two volumes on syntax, which were absent in Thrax's grammar. These concerned nothing of much interest to us, mostly being based on

some rather dubious philosophy concerning the way the natural order of the world imposes order on the words of a sentence. For example, it was claimed that the natural order of subject-predicate in Latin follows from the fact that the existence of physical objects naturally precedes the actions of those objects.

In his *Short History of Linguistics*, Robins (1967) first mentions the notion of a subordinate clause in connection with the Priscian grammar. Again, however, we cannot take this to be the rudiments of the notion of grammatical hierarchical structure (i.e. one clause being contained within another) as it is not at all clear whether Priscian's notion of subordination is not similar to the Greek one, i.e. more like dependency. The fact that this notion continued into the Middle Ages, as we shall see, indicates that it was.

## 3   The Dark Ages

The Middle Ages, as its name suggests, consists of the time between the ancient era and the modern one. It is hard to say when the ancient era ended and the modern one began, so it is difficult to put exact dates to the Middle Ages. Certainly, the fall of the Roman Empire marks one possible starting point.

The Middle Ages are also known as 'the Dark Ages', for a specific reason: the prevalence of a doctrine known as 'scholasticism' which rose from the ascendance of Roman Catholicism after the fall of the Roman Empire. This consisted of two main themes. First, all 'scientific' knowledge had to be brought in line with biblical teachings and second, a backlash against classical thinking, which was viewed as dangerously pagan and barbaric. During this time, therefore previous advances which had been made on the basis of Greek philosophy were abandoned and virtually nothing was there to take its place. Essentially, all the lights went out and the advancement of human knowledge in Europe was put on hold for several centuries.

As far a linguistic interest at the time is concerned, the only activity concerned the teaching of Latin, by then an all but dead language but with important religious and political significance. Thus, for Europeans, Latin took on the status that Sanskrit had for the Indian linguists and Homeric Greek had for the Greek grammarians: i.e. something to be preserved in the face of natural change over time.

It was the Priscian grammar which was universally adopted for the purposes of teaching Latin. This is somewhat ironic due to the fact that, as mentioned above, this was almost wholly based on Thrax's grammar, which was part of what was being directly renounced at the time as pagan barbarism. Thus, for language teaching purposes at least, this aspect of Greek thought continued to have an impact on linguistic knowledge, even if indirectly.

For the most part of the Dark Ages, there is little to say about linguistic thought. However, towards the end of the period, a movement started under the title of 'speculative grammar' which placed more emphasis on syntax, of particular interest to us.

For example, the speculative grammarians are claimed to have been the first to apply the notion of a syntactic subject (suppositum) and predicate (appositum).

Robins (1967) gives the following description of an analysis by Thomas of Erfurt (c 1310):

(18)    Socrates albus currit benne
        Socrates white runs well

'White Socrates runs well.'

*Socrates* is the subject and *currit* is the predicate while *albus* is a subordinate element of *Socrates* and *benne* is subordinate to *currit*.

Unfortunately, this does not seem to be any advancement on the state of syntactic analysis than the Greeks had achieved, and therefore seems to be a classic example of the reinvention of the wheel. Only the word *Socrates* is identified as the subject, and *currit* is the predicate. There is no identification of any phrase formed by *Socrates albus* or *currit benne*. Th notion of 'subordination', similar to that of Plato's analysis, is more of a dependency rather than a syntactic unit. That this is what the intention was is made clear by the following quote from Thomas of Erfurt (Robins' translation):

> "One part of a construction stands to another either as depending on it or satisfying its dependence."

However, for Thomas of Erfurt dependency relationships were based on inflectional properties, rather than a semantic notion, as Plato had proposed. As the verb shows morphological agreement with the subject, it was taken to be dependent on it. Therefore, the analysis might be better represented as follows:

(19)     Socrates

albus   currit

benne
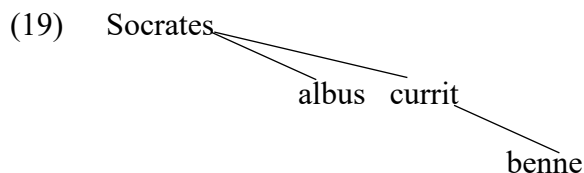
It is clear that this conception of clause organisation is not tantamount to conceptualising phrases. We are therefore once again disappointed in our search for the origins of the phrase.

## 4   The Renaissance

While the Middle Ages might be thought to start with the fall of the Roman Empire, it has been said that they ended with the Renaissance. This seems to have been a rather confusing time with contradictory attitudes being adopted, sometimes by the same individuals. It was the time of the rediscovery of classical learning, especially of the Greek philosophers, but it was also the time of the rejection of old ways of thinking. It was the time where the classical linguists, who had spent all their efforts on the sole study of Greek, were revered, but it was also the time that, due to the rise of nationalism, the study of one's own language was important. Philosophically it was also the time of the start of the debate between (British) empiricists and (French) rationalists.

On the syntactic front, despite the increased interest in studying a range of different languages, especially ones which were not as inflectional as Latin and Greek and so which displayed much stricter word orders, there were unfortunately few innovative analyses put forward, with most attention being paid to the categorisation of words. In this respect, the main method was to start with the Priscian categories of Latin (based on Thrax's categories for Greek) and then alter these to fit the language under study.

The Port Royal grammarians, a major group instrumental in the study of language at the time, made the unfortunate step, which has hindered linguistics ever since, of redefining the

traditional Greek categories on semantic grounds, breaking with the traditional Greek methodology of basing categories on morphological properties. Of particular interest, however, is the Port Royal approach to subordination. We have already seen how the existence of the notion of subordination does not necessarily entail a rudimentary view of constituent structure, but the Port Royal grammarians took a view which necessarily prevents the conception of constituent structure. In their view, subordination was theoretically a superficial representation of independent constructs. For instance, the following would be an analysis of a superficial sentence into its underlying constructs:

(20)    a       The invisible God created the visible world.
        b       God, who is invisible created the world, which is visible.
        c       God is invisible. God created the world. The world is visible.

Thus, while (20a) looks to be a single sentence, in the Port Royal view it is in essence three separate sentences.

There is little else in the linguistics of this time that might lead us to consider that the idea of a phrase had been conceived and despite the increased interest in languages of different natures to classical ones, in which perhaps phrase structure was not so greatly obscured, it seems that linguistic interests remained mostly on issues that came out of classical studies, such as phonetics and categorial analysis.

## 5   Comparative Linguistics

At the beginning of the 19th century a new development in linguistic study in Europe was to sweep almost all other interests to the sidelines. This was in part ushered in by the returned interest in classical languages in the Renaissance period, but it was also directly caused by the European discovery of Indian linguistics.

The idea that different languages are related to each other historically is a fairly old one. However, early ideas, such as Latin developed directly from Greek, or all languages developed from Hebrew, were hopelessly inaccurate and clearly not the basis for serious scientific investigation. Strangely enough, it was Christian doctrine that accidentally led to the foundation of the idea of the Indo-European family (Campbell 2001). Based on the biblical story of Noah, it was believed that Japheth, one of Noah's sons, was the father of Europe and hence that all European languages must come from a single source. This notion eventually led to the Goropoius' (1569) 'Scythian hypothesis': that a by now extinct language (Scythian) was the mother of most European languages. This hypothesis was perpetuated by more scientific study in the next few centuries (Scaliger 1610; Boxhorn 16??, Jäger 1686) and when in 1733 Walter added Sanskrit to the Scythian family, the roots of Indo-European were firmly laid.

In Europe as a whole, and particularly in Germany, the Comparative Method became the main force in linguistics, which aimed at discovering connections between languages through their comparison, mainly of their vocabularies. This study turned mainly to the phonological correspondences between languages, and it is in this period that the sound laws were first proposed. In the latter part of the 1800s, a group of linguists, called the Neogramarians, dominated linguistic study in Europe, adopting the rigid principle that laws of sound change were exceptionless and being highly critical of previous studies.

You will note that we have not said much about syntax here, let alone the roots of the notion phrase. In truth, there is very little to say. The comparison of the vocabularies of languages is unlikely yield much insight into the syntax of those languages. Indeed, the serious study of the historical aspects of syntax did not start before about 30 years ago. To be fair, the comparativists and the Neogrammarians suffered from the same problems that their predecessors did: the ancient languages available to them were all highly inflecting languages which allowed a good deal of word order variation. It is also very difficult to recreate the syntax of a proto language as the principles of syntactic change are not very well known. As in all previous cases then, we must abandon our search for the origins of the phrase in this period of linguistic history.

## 6   Early (European) Structuralism

There is a ray of hope in the name of the linguistic movement that followed the Neogrammarians. Surely the structuralists must have come up with the idea of hierarchical syntactic structure. Unfortunately, this was not to be – the structure of the structuralists turns out to be something quite different to what a modern syntactician might mean by the term.

European Structuralism is said to have started with the publication of Ferdinand de Saussure's course in general linguistic, which he gave between 1907 and 1911 but which was compiled and published by his students in 1916, three years after his death. Like everything else reviewed here, I will not give a full discussion to Saussure's work as my interest is the history of the phrase rather than the history of all linguistic ideas. But we do need to understand why the structuralism of Saussure is not the right place to find constituent structure.

Among the ideas that Saussure is noted for, what gives rise to the title of the movement which stems from his work is the idea that language is a system, understandable only in terms of its elements and their relationship to each other. The elements of language are the *signs*, comprising of a *signifier* (a form) and a *signified* (a meaning) which are arbitrarily linked. The point is that the system has to be taken as a whole, and the individual units cannot be seen as independently defined elements which the system is built from. They are elements which get their properties by being part of the system. Saussure gave the example of a train system to clarify this idea. A train might be identified as 'the 8.25 to Paris'. What identifies this object as such is nothing to do with the actual object itself, however. Clearly this train could have different properties on different days: a different engine, different carriages, different drivers, etc. However, it would remain the 8.25 to Paris despite these. The 8.25 to Paris many not even leave at 8.25 on a particular day (it might be delayed) and yet, it would still be the 8.25 to Paris. What makes it so is the way that it fits into the system – some trains go to Paris, others don't; some trains that go to Paris are scheduled to leave at 8.25 and others are not. It is only within the system then that the sign makes sense.

It is obvious, given that the focus of this approach is on the signs and the systems that they belong to, that it has in common with all previous approaches we have reviewed that it has very little to say about syntax. Indeed, Saussure doesn't say much about the ways in which words are put together to form sentences – this was just not something he was investigating.

Following Saussure, probably the most influential school of thought in European

linguistics was the Prague school, with its most well-known members being Trubetzkoy and Jakobson. These are, of course, mostly known for their phonological work on the phoneme, and especially in the development of the notion of the distinctive feature. The other thing they are known for is work on stylistics. While there was some work on the comparative syntax of Slavic languages, it does not appear to have had much influence in the development of syntactic theory, and certainly there is no evidence that the notion of the phrase was coined at this time.

## 7   Conclusion

We have reviewed the history of linguistic thought from about 500 BCE to, roughly, the end of the second world war, nearly 2500 years. The idea that words are put together to form structural units smaller than sentences seems not to have arisen in all that time. Perhaps this is a quirk of the languages on which initial investigations were concentrated, though it seems that once one moved away from these, to languages with more strict word orders, these first investigations influenced the field to such an extent that no one thought of syntax as much of an issue. Far more work had been put into the development of Phonetics, phonological and morphological theories and the historical development of language (i.e. the traditional areas of linguistic investigation).

But the notion of the phrase was invented. To find its roots, we will have to shift our attention from European (and Asian) scholars, and look further westward, to America.