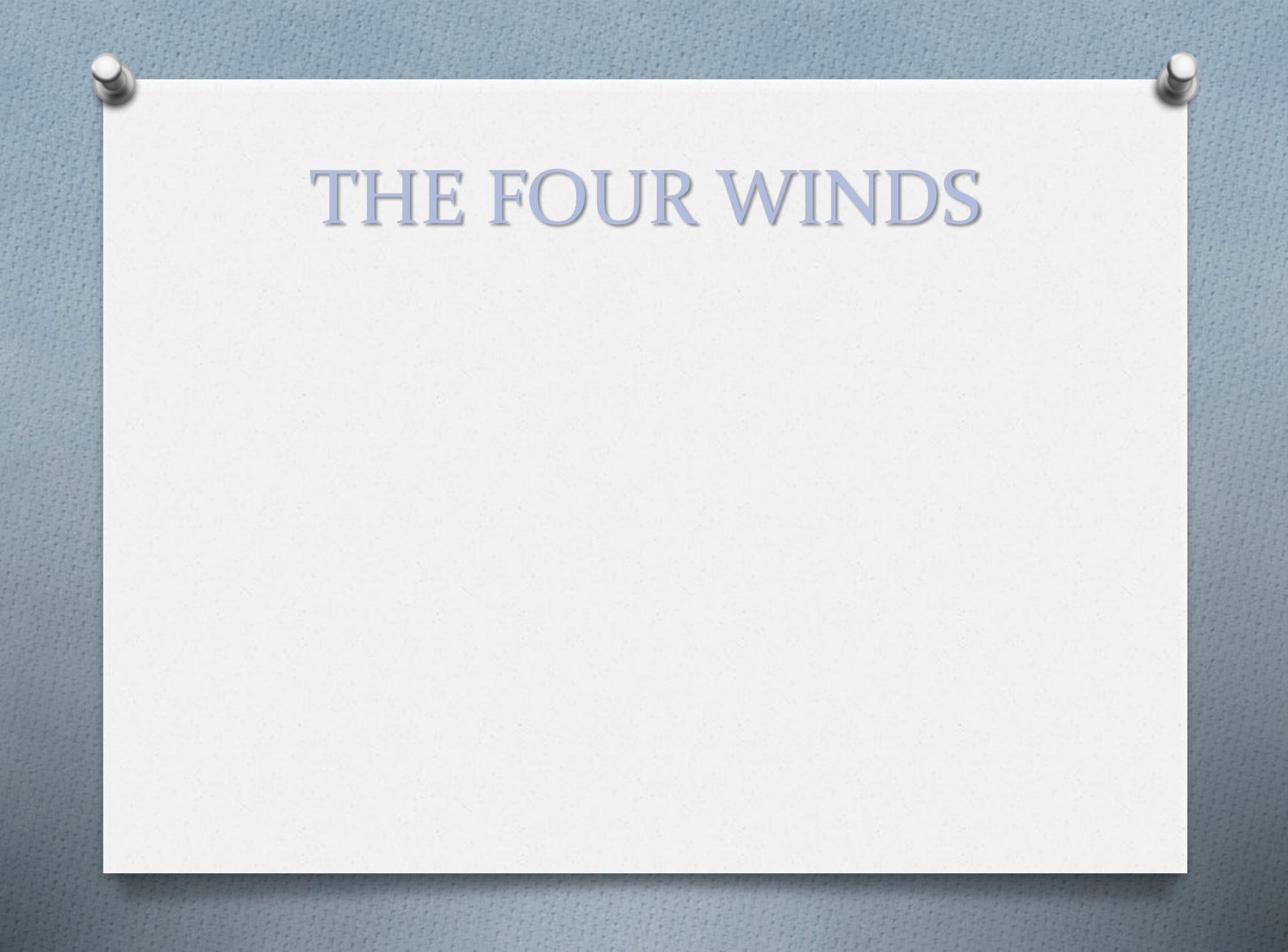


SYNTAX INTRODUCTORY

18-02-2022



THE FOUR WINDS

Four Key Aspects of Signification

According to American semiotician

[,sɛmiə'tɪʃən]

Charles William Morris

(1901 – 1979),

symbols have three types of relations,

meanwhile Roman Jakobson

and Georg Klaus add another one.

Four Key Aspects of Signification

to objects	[sɪ'mæntɪks]; [sə'mantɪks]
to persons	[præg'mætɪks]
to other symbols (on the axis of combination)	[sɪn'tæktɪks]
to other symbols (on the axis of selection)	[sɪg'mætɪks]

MOVING TOP DOWN

Layers	Levels of linguistic consideration
Communicative Event / Text / Discourse / Genre / Interaction construction	<i>Etic</i> : Real life episodes of communication. <i>Emic</i> ['i:mɪk]: Schemata of communication.
Syntactic	Schemes / Schemata of message construction
Lexical	Independent meaningful units
Morphological	Minimal (bound) signs / signification units
Phonological	Distinctive, differentiating and accumulative functions

YELLOW

QUICKLY

BIG

THE

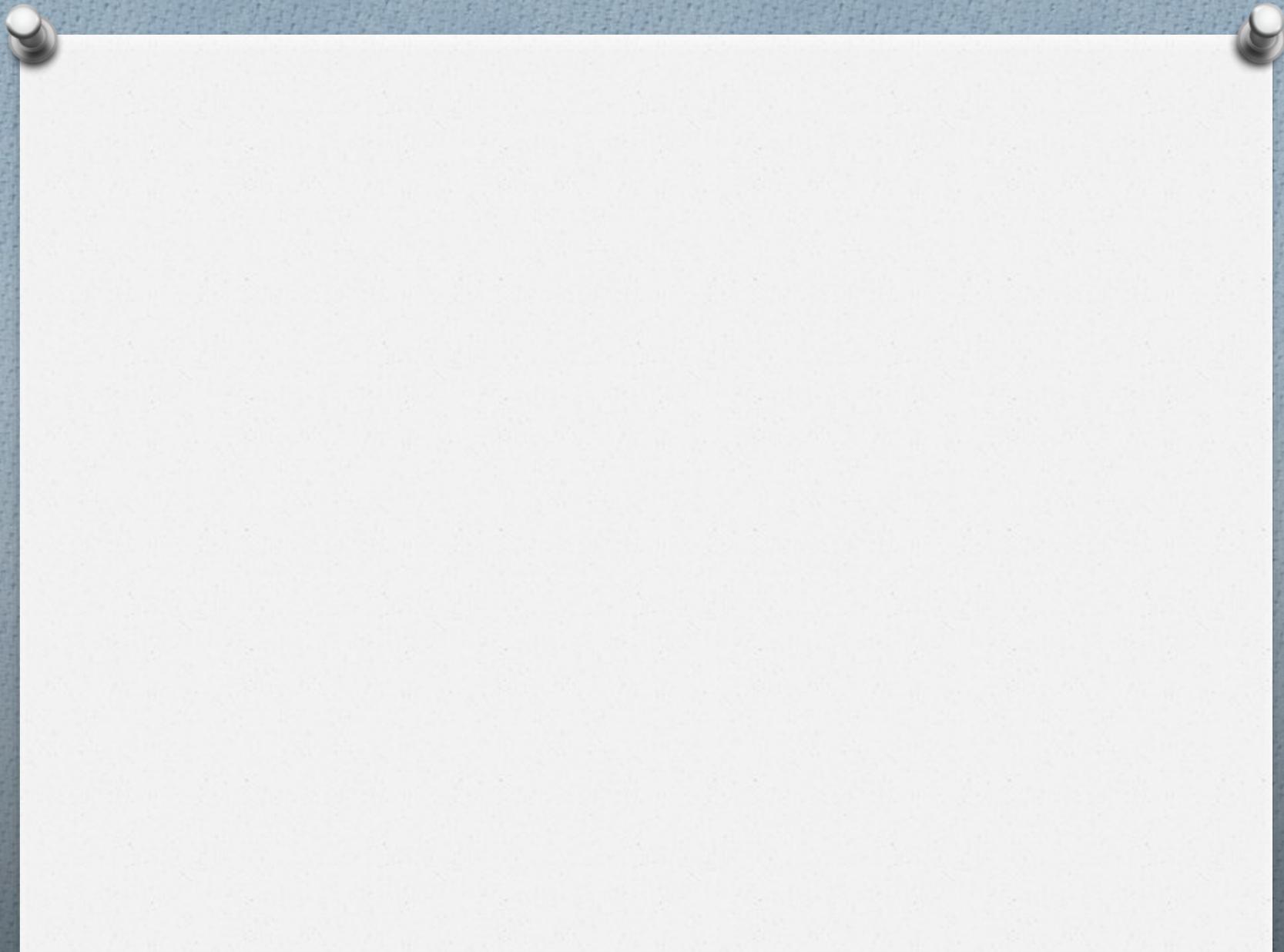
RED

CHICKEN

FOX

THE

ATE



Generative Grammar??

In linguistics, generative grammar is grammar (*the set of language rules*) that indicates the structure and interpretation of sentences that native speakers of a language accept as belonging to their language.

Generative Grammar??

Adopting the term generative from **mathematics**, linguist Noam Chomsky introduced the concept of generative grammar in the 1950s. This theory is also known as transformational grammar, a term still used today.

Generative Grammar??

Generative grammar is a theory of grammar, first developed by Noam Chomsky in the 1950s, that is based on the idea that **all humans have an innate language capacity.**

Generative Grammar??

- Linguists who study generative grammar are not interested in *prescriptive rules*; rather, they are interested in uncovering **the foundational principals that guide all language production.**

Generative Grammar??

- Generative grammar accepts as a basic premise that native speakers of a language will find certain sentences **grammatical or ungrammatical** and that these (**instinctive?**) judgments give insight into the rules governing the use of that language.

Generative Grammar??

Grammar generally refers to the set of rules that structure a language, including **syntax** (the arrangement of words to form phrases and sentences) and **morphology** (the study of words and how they are formed).

Generative Grammar??

Generative grammar is a theory of grammar that holds that human language is shaped by a set of basic principles that are part of the human brain (and even present in the brains of small children). This "universal grammar," according to linguists like Chomsky, comes from our innate language faculty.

Generative Grammar??

Frank Parker and Kathryn Riley argue that generative grammar is a kind of **unconscious knowledge** that allows a person, no matter what language they speak, to form "correct" sentences.

Generative Grammar??

"Simply put, a generative grammar is a theory of competence: a model of the psychological system of unconscious knowledge that underlies a speaker's ability to produce and interpret utterances in a language ...

Generative Grammar??

"... A good way of trying to understand [Noam] Chomsky's point is to think of a generative grammar as essentially a definition of competence: a set of criteria that linguistic structures must meet to be judged **acceptable**," (Parker and Riley 2009).

Generative Grammar??

Generative grammar is distinct from other grammars such as **prescriptive grammar**, which attempts to establish standardized language rules that deem certain usages "right" or "wrong," and descriptive grammar, which attempts to describe language as it is actually used (including the study of pidgins and dialects).

Generative Grammar??

Instead, **generative grammar** attempts to get at something deeper—the foundational principles that make language possible across all of humanity.

Generative Grammar??

For example, a prescriptive grammarian may study how parts of speech are ordered in English sentences, with the goal of laying out rules (nouns precede verbs in simple sentences, for example).

Generative Grammar??

A linguist studying generative grammar, however, is more likely to be interested in issues such as how nouns are distinguished from verbs across multiple languages.

Generative Grammar??

Principles of Generative Grammar

The main principle of generative grammar is that all humans are born with an innate capacity for language and that this capacity shapes the rules for what is considered "correct" grammar in a language.

Generative Grammar??

Principles of Generative Grammar

The idea of an innate language capacity—or a "universal grammar"—is not accepted by all linguists.

Some believe, to the contrary, that all languages are learned and, therefore, based on certain constraints.

Generative Grammar??

Proponents of the universal grammar argument believe that children, when they are very young, are not exposed to enough linguistic information to learn the rules of grammar.

Generative Grammar??

That children do in fact learn the rules of grammar is proof, according to some linguists, that there is an innate language capacity that allows them to overcome the "poverty of the stimulus."

Generative Grammar??

Examples of Generative Grammar

As generative grammar is a "theory of competence," one way to test its validity is with what is called a **grammaticality judgment task**. This involves presenting a native speaker with a series of sentences and having them decide whether the sentences are grammatical (acceptable) or ungrammatical (unacceptable).

Generative Grammar??

Examples of Generative Grammar

For example:

- The man is happy.
- Happy man is the.

Generative Grammar??

Examples of Generative Grammar

A native speaker would judge the first sentence to be **acceptable** and the second to be **unacceptable**. From this, we can make certain assumptions about the rules governing how parts of speech should be ordered in English sentences. For instance, a "to be" verb linking a noun and an adjective must follow the noun and precede the adjective.

Generative Grammar??

Sources

- Parker, Frank, and Kathryn Riley. Linguistics for Non-Linguists: A Primer With Exercises. 5th ed., Pearson, 2009.
- Strunk, William, and E.B. White. The Elements of Style. 4th ed., Pearson, 1999.

Grammar can be based on grammatical sequences in a language

These categories can be discussed in isolation, but their role in describing language structure becomes clearer when we consider them in terms of agreement. For example, we say that the verb loves “agrees with” the noun Cathy in the sentence Cathy loves her dog.

A Task

Given these other Gaelic words,
translate the following sentences into English.
mor (“big”) beag (“small”) bhuail (“hit”) duine (“man”)

(i) Bhuail an gille beag an cu dubh.

(ii) Chunnaic an cu an duine mor.

A Task

Даны формы азербайджанского глагола с переводом на русский язык:

- 1) Бахмаг - смотреть
- 2) Бахабилмамаг - не мочь смотреть
- 3) Бахыраммы - смотрю ли я?
- 4) Бахышабилырлар - они могут смотреть друг на друга
- 5) Бахмадылар - они не смотрели
- 6) Бахдырабилдымы - мог ли он заставляя смотреть?
- 7) Бахмалыдысанты - должен был смотреть
- 8) бахдырырам - я заставляю смотреть
- 9) бахмасады - если он не смотрел

A Task

Задание 1. Опишите, в каком порядке располагаются значащие элементы в составе азербайджанского глагола.

Задание 2. Переведите на азербайджанский язык:

- a) Смотришь ли ты?
- b) Они не смотрели друг на друга.
- c) Заставлять смотреть.
- d) Если он мог смотреть.

The list of abbreviations

The list of common symbols and abbreviations is summarized here.

S sentence

NP noun phrase: **PN** proper noun; **N** noun; **Art** article

Pro pronoun

VP verb phrase **Adv** adverb **V** verb

Adj adjective **Prep** preposition; **PP** prepositional phrase

The list of abbreviations

NP → Art N

NP → Pro

NP → PN

NP → {
Art N
Pro
PN

NP → {Art N, Pro, PN}

It is important to remember that, although there are three constituents inside these curly brackets, only one of them can be selected on any occasion.

The list of symbols

* ungrammatical sentence

→ consists of / rewrites as

() optional constituent

{ } one and only one of these constituents must be selected

The list of symbols

By using a tree diagram format we can simply treat it as a static representation of the structure of the sentence shown at the bottom of the diagram. We could then propose that, for every single sentence in English, a tree diagram of this type could be drawn.

The list of symbols

We can **treat the tree diagram as a dynamic format**, in the sense that it represents a way of generating not only that one sentence, but a very large number of other sentences with similar structures. This second approach would enable us **to generate a very large number of sentences** with what look like a very small number of rules. These rules are called **phrase structure rules**.

The list of symbols

The structure of a phrase of a specific type will consist of one or more constituents in a particular order.



That is, the information shown in the tree diagram **on the left** can be expressed in the phrase structure rule **on the right**.

The list of symbols

The first rule in the following set of simple (and necessarily incomplete) phrase structure rules states that “a sentence rewrites as a noun phrase and a verb phrase.”

The second rule states that “a noun phrase rewrites as either an article plus an optional adjective plus a noun, or a pronoun, or a proper noun.”

The list of symbols

The other rules follow a similar pattern.

$S \rightarrow NP + VP$

$NP \rightarrow \{\text{Art (Adj) N, Pro, PN}\}$

$VP \rightarrow V NP (PP) (\text{Adv})$

$PP \rightarrow \text{Prep NP}$

The list of symbols

Phrase structure rules generate structures. In order to turn those structures into recognizable English, we also need lexical rules that specify which words can be used when we rewrite constituents.

The first rule in the following set states that “a proper noun rewrites as Mary or George.” (It’s a very small world.)

The list of symbols

PN \rightarrow {Mary, George}

N \rightarrow {girl, dog, boy}

Art \rightarrow {a, the}

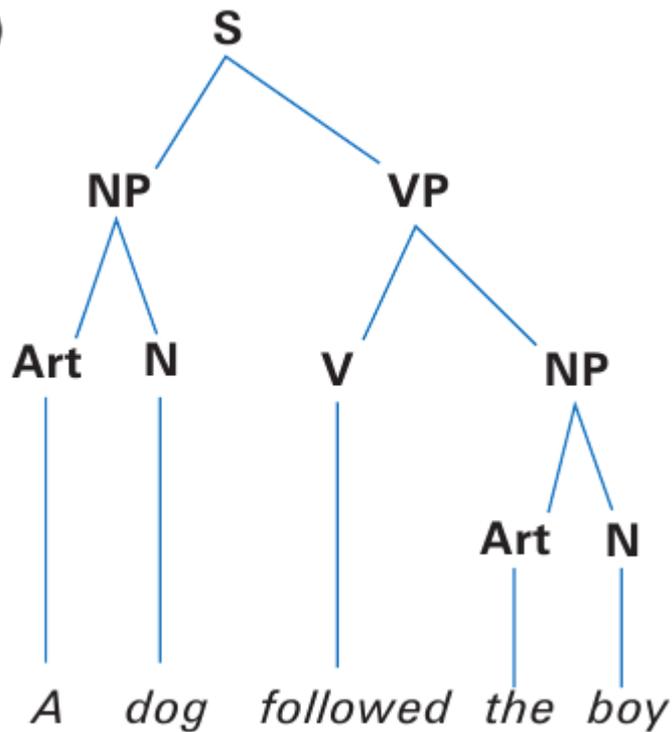
Pro \rightarrow {it, you}

V \rightarrow {followed, helped, saw}

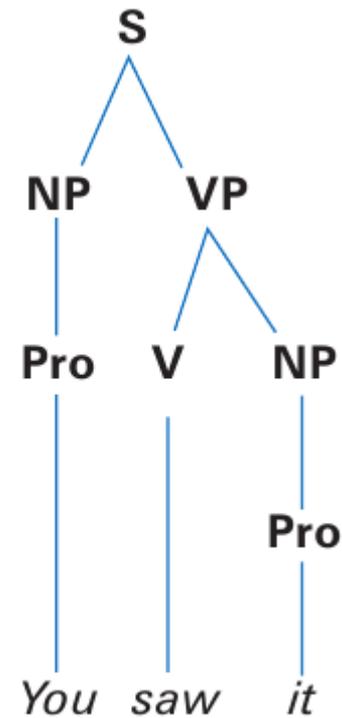
structure rules observed	structure rules unobserved
(1) A dog followed the boy.	(7) *Dog followed boy.
(2) Mary helped George.	(8) *The helped you boy.
(3) George saw the dog.	(9) *George Mary dog.
(4) The boy helped you.	(10) *Helped George the dog.
(5) It followed Mary.	(11) *You it saw.
(6) You saw it.	(12) *Mary George helped.

Structure Rules

(1)



(6)



Structure Rules and Movement Rule

One feature of these underlying structures is that they will *generate sentences with a fixed word order*. That is convenient for creating declarative forms (You will help Mary), but not for making interrogative forms, as used in questions (Will you help Mary?). In making the question, we move one part of the structure to a different position. This process is based on a movement rule

Structure Rules and Movement Rule

We need to expand our phrase structure rules to include an auxiliary verb (**Aux**) as part of the sentence. This is illustrated in the first rewrite rule below. **Auxiliary verbs** (sometimes described as “helping” verbs) take different forms in English, but one well-known set can be included in the rudimentary lexical rule for **Aux** below. We also need a lexical rule that specifies the basic forms of the verbs, shown as the third rewrite rule below.

Structure Rules and Movement Rule

$S \rightarrow NP \text{ Aux VP}$

$\text{Aux} \rightarrow \{\text{can, could, should, will, would}\}$

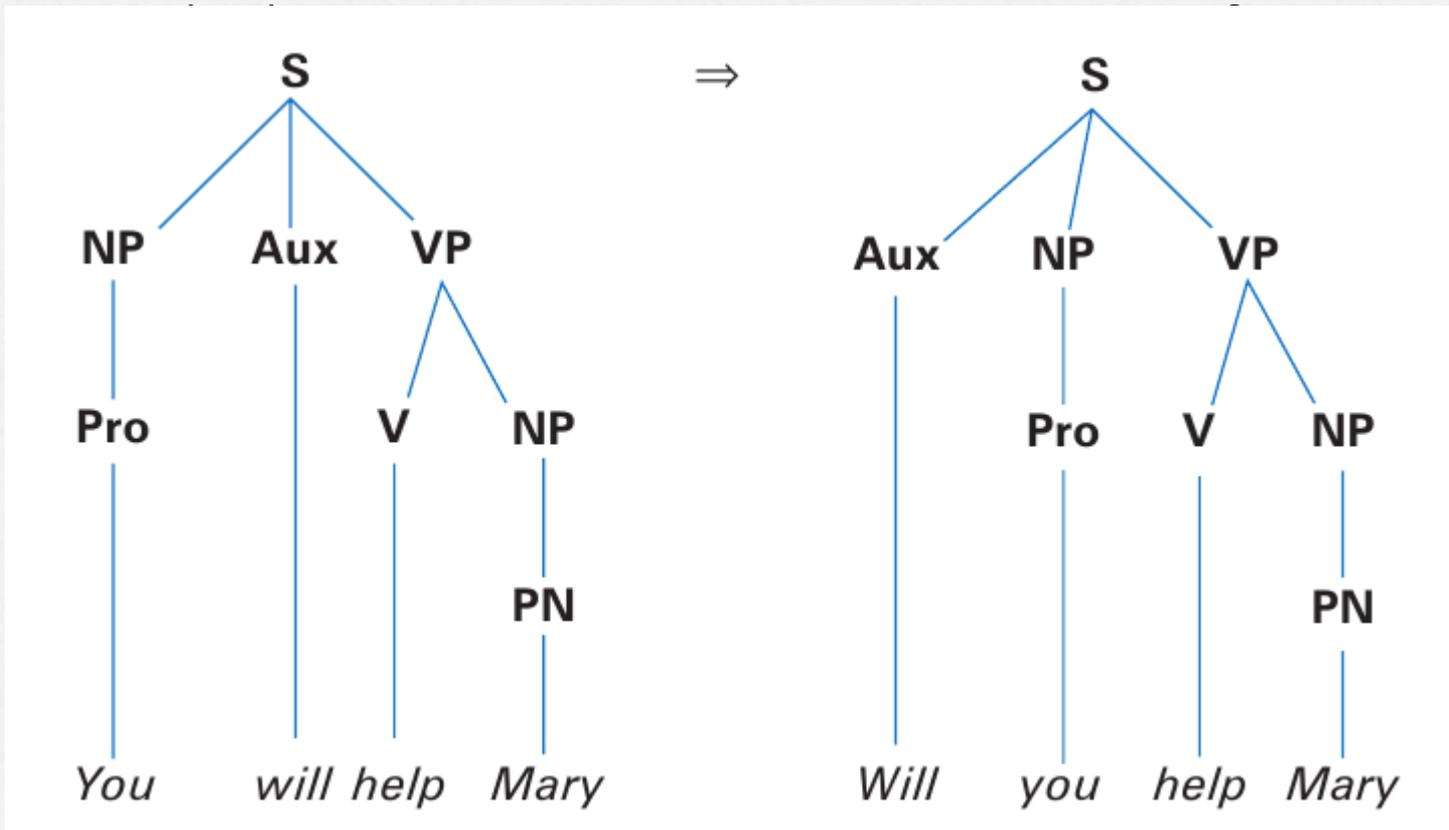
$V \rightarrow \{\text{follow, help, see}\}$

Structure Rules and Movement Rule

With these components, we can specify a simple movement rule that is involved in the creation of one basic type of question in English.

NP Aux VP \Rightarrow Aux NP VP

Structure Rules and Movement Rule



Structure Rules and Movement Rule

The simple phrase structure rules listed earlier have no recursive elements. Each time we start to create an S, we only create a single S (sentence structure). We actually need to be able to include sentence structures within other sentence structures. In traditional grammar, these “sentence structures” were described as “clauses.”

Structure Rules and Movement Rule

We know, for example, that *Mary helped George* is a sentence. We can put this sentence inside another sentence beginning *Cathy knew that [Mary helped George]*. And, being tediously **recursive**, we can put this sentence inside another sentence beginning *John believed that [Cathy knew that [Mary helped George]]*

Structure Rules and Movement Rule

And, being tediously *recursive*, we can put this sentence inside another sentence beginning Johnbelieved that [Cathy knew that [Mary helped George]]

Mary helped George.

Cathy knew that Mary helped George.

John believed that Cathy knew that Mary helped George.

Complement Phrase (CP)

The word that, as used in these examples, is called a **complementizer (C)**.

The role of

that as a complementizer is to introduce a **complement phrase (CP)**.

So, there must be another rule

that says: “a verb phrase rewrites as a verb and complement phrase,” or **VP** \rightarrow **V CP**.

Complement Phrase (CP)

If we now look at these two new rules in conjunction with an earlier rule, we can see how recursion is built into the grammar.

$S \rightarrow NP VP$

$VP \rightarrow VCP$

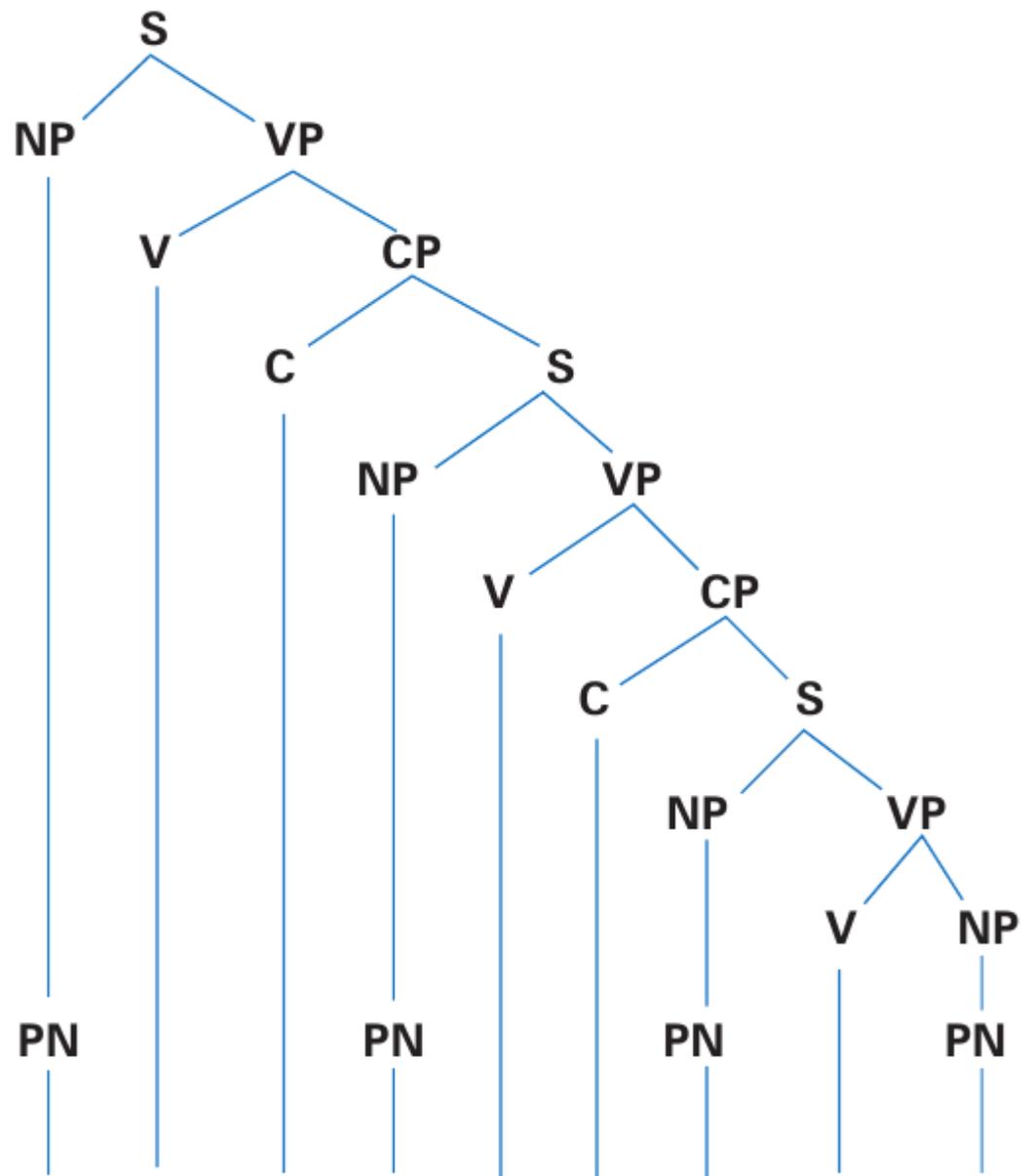
$CP \rightarrow CS$

Complement Phrase (CP)

We begin with S on the left and, as we rewrite symbols, we eventually have S on the right, allowing us to go back to the beginning and go through the set of rules again (and again). This means that we can, in principle, use these rules to create an endless sentence containing other sentence structures.

ComPhrase CP:

John believed that
Cathy knew that
Mary helped George.



John believed that Cathy knew that Mary helped George

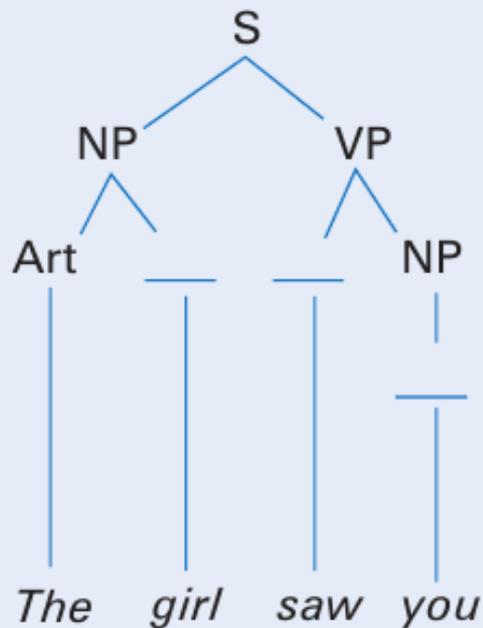
Further analysis of syntax

As we try to capture more aspects of the structure of complex English sentences, we inevitably need to identify more rules and concepts involved in the analysis of syntax. (We've barely scratched the surface structures.)

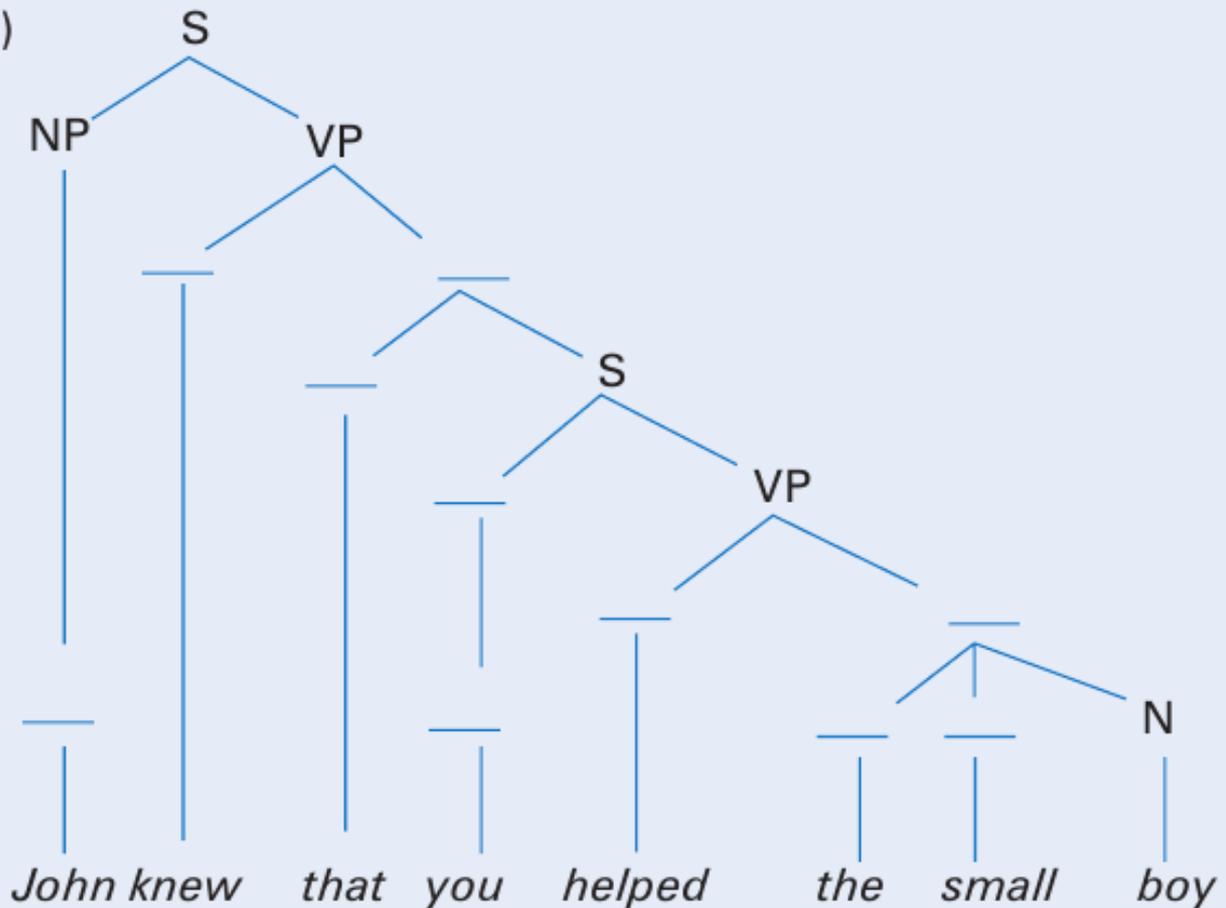
A Task

complete the following tree diagrams.

(a)

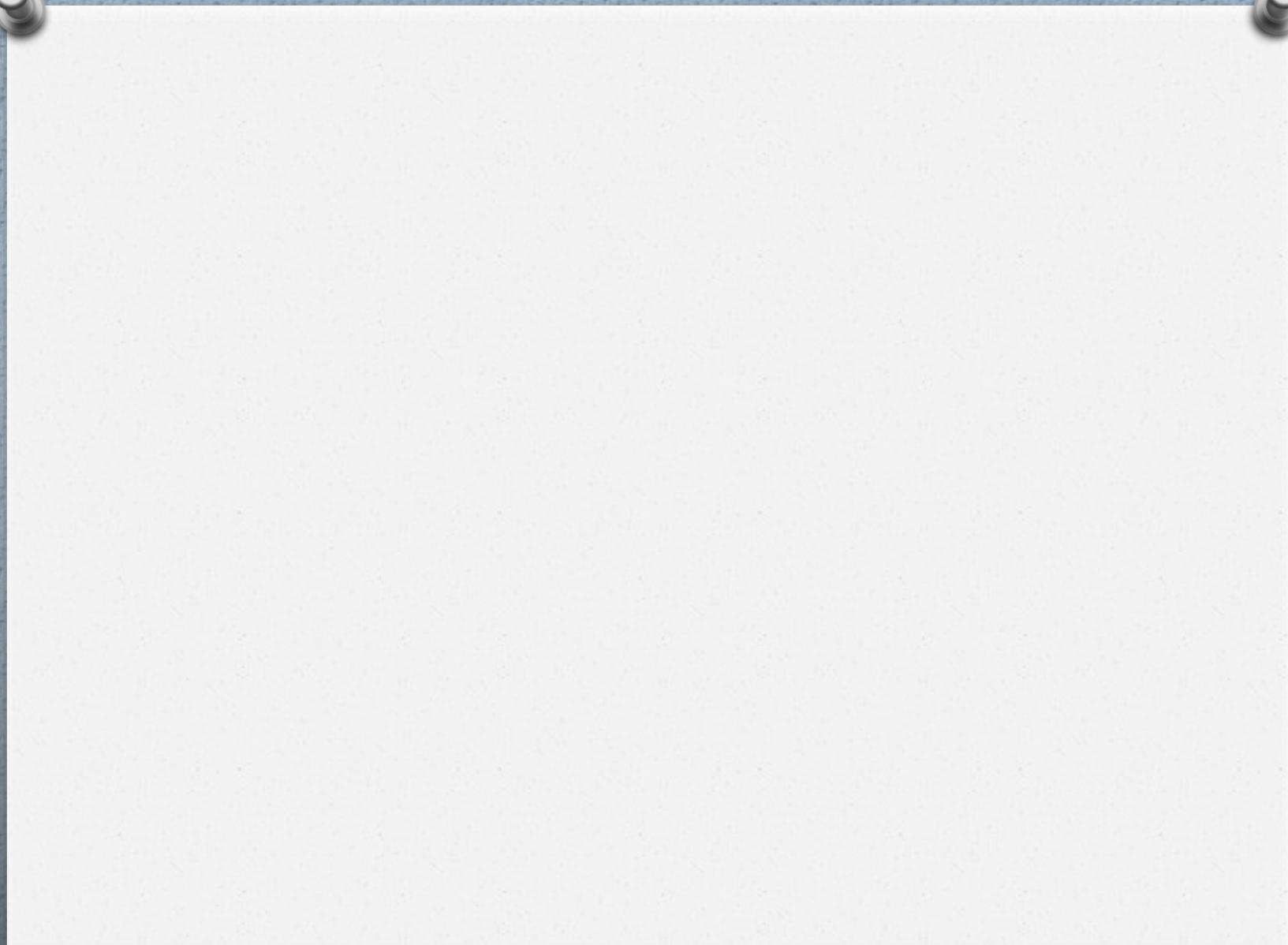


(b)



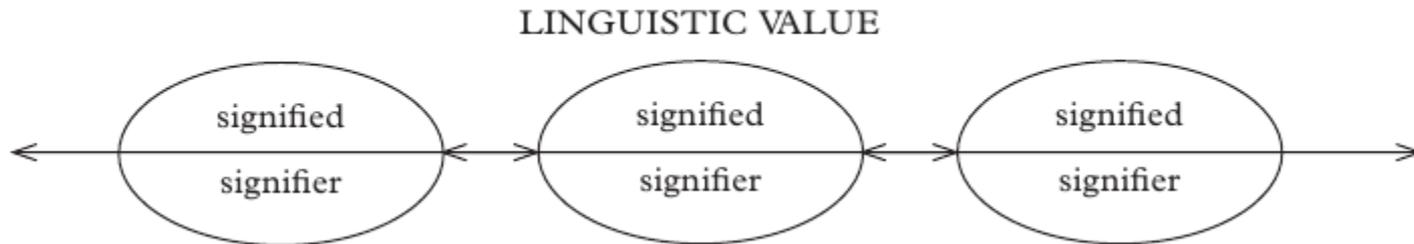
A Task

- 3 In what ways are these expressions structurally ambiguous?
- (a) *The parents of the bride and groom were waiting outside.*
 - (b) *We met an English history teacher.*
 - (c) *Flying planes can be dangerous.*
 - (d) *The students complained to everyone that they couldn't understand.*
- 4 Which of the following expressions would be generated by this phrase structure rule: $NP \rightarrow \{\text{Art (Adj) N, Pro, PN}\}$?
- (a) *a lady* (c) *her* (e) *the widow*
 - (b) *the little girl* (d) *Annie* (f) *she's an old woman*
- 5 Which of these sentences would result from applying the rule: $NP \text{ Aux VP} \Rightarrow \text{Aux NP VP}$?
- (a) *John will follow Mary.* (c) *Can George see the dog?*
 - (b) *You knew that Cathy helped the boy.* (d) *Should you believe that Mary saw it?*



REFERENCE AND SENSE

Figure 1.2 Reference and sense in the vocabulary



Reference and Sense

One important point made by the linguist Ferdinand de Saussure (1974), whose ideas have been so influential in the development of modern linguistics, is that the meaning of linguistic expressions derives from two sources: the language they are part of and the world they describe.

Reference and Sense

Words stand in a relationship to the world, or our mental classification of it: they allow us to identify parts of the world, and make statements about them. Thus if a speaker says He saw Paul or She bought a dog, the underlined nominals allow her to identify, pick out, or refer to specific entities in the world. However, words also derive their value from their position within the language system.

REFERENCE AND SENSE

The relationship by which language hooks onto the world is usually called reference. The semantic links between elements within the vocabulary system is an aspect of their sense,⁸ or meaning. Saussure (1974: 115) used the diagram in Figure 1.2 to show this patterning.

Reference and Sense

Each oval is a word, having its own capacity for reference, but each is also linked to other words in the same language, like a cell in a network. His discussion of this point is excellent and we cannot really do it justice here, except to recommend the reader to the original.

Reference and Sense

His well-known examples include a comparison of English sheep and French **mouton**. In some cases they can be used to refer in a similar way but their meaning differs because they are in different systems and therefore have different ranges:

in English there is an extra term **mutton**, used for meat, while the French word can be used for both the animal and the meat.

Reference and Sense

in English there is an extra term **mutton**, used for meat, while the French word can be used for both the animal and the meat.

Thus, the meaning of a word derives both from what it can be used to refer to and from the way its semantic scope is defined by related words. So the meaning of chair in English is partly defined by the existence of other words like stool.

Reference and Sense

Similarly, the scope of **red** is defined by the other terms in the color system: brown, orange, yellow, and so on. The same point can be made of grammatical systems: Saussure pointed out that plural doesn't "mean" the same in French, where it is opposed to singular, as it does in Sanskrit or Arabic, languages which, in addition to singular, have **dual forms**, for exactly two entities. In the French system, plural is "two or more," in the other systems, "three or more."





TRANSFORMATIONAL GENERATIVE GRAMMAR

1957

Noam Chomsky

Transformational generative grammar

In 1957 Noam Chomsky,
an American, published **Syntactic Structures**,
a statement of the principles of transformational
generative grammar (TG).

Transformational generative grammar

This grammar has had a profound effect on the study of all languages, including English.

TG was a reaction against structuralism and the first model to acknowledge formally the significance of **deep structure**.

Transformational generative grammar

Transformational generative grammarians set themselves the task of creating an explicit model of what an ideal speaker of the language intuitively knows.

Their model must assign a structure, therefore, to all the sentences of the language concerned and only to these sentences.

Transformational generative grammar

As a first step towards this, Chomsky distinguished between 'competence', which he defines as 'the ideal speaker-hearer's knowledge of his language', and 'performance', which is 'the actual use of language in concrete situations'. Competence is, as it were, the perfect storehouse of linguistic knowledge. Performance draws on this knowledge but it can be faulty.

Transformational generative grammar

The TG model attempts to formulate hypotheses about competence by idealising performance, that is, by dredging away performance accidents such as hesitations, unnecessary repetition, lack of attention, fatigue, slips of the tongue, false starts. TG is interested in competence and this interest marks the clearest difference between structuralism and TG.

Transformational generative grammar

Structuralism was text-based and only interested in language that had actually occurred.

TG does not use text since it is more interested in what produced the text than in the text itself.

Transformational generative grammar

A TG model has four main characteristics:

A TG model has four main characteristics:

1. It must attempt to make explicit how a finite entity like the brain can operate on a finite set of items (words and structures) and yet generate an infinite set of sentences. The model must parallel the ideal speaker's competence and so it must be capable of generating an infinite set of sentences by the operation of a finite set of rules on a finite set of items.

A TG model has four main characteristics:

We can give an impression here of how that can be done. Let us suppose, for example, that we have the rules:

S — NP + VP (sentence can be rewritten as noun phrase + verb phrase)

NP — (det) + N (noun phrase can be rewritten as (determiner) + noun)

VP ~ V + NP (verb phrase can be rewritten as verb + noun phrase)

A TG model has four main characteristics:

and suppose we have two nouns 'boys' and 'girls', three determiners 'the', 'some' and 'five', and three verbs 'love', 'hate' and 'trust', then we can produce hundreds of sentences such as:

Transformational generative grammar

1. Boys love/hate/trust girls.
2. Girls love/hate/trust boys.
3. Some boys love/hate/trust girls.
4. Boys love/hate/trust some girls.
5. Five boys love/hate/trust the girls.
6. The boys love/hate/trust some/five/the girls.

Transformational generative grammar

These sentences give a limited idea of the productive quality of even the simplest model.
A TG model has four main characteristics:

A TG model has four main characteristics:

2. Since the model attempts to describe the idea (speaker-hearer's linguistic knowledge and intuitions), it must be explicit. It must not fall back on intuition to ask whether a structure is or is not correct. If it used intuition to define intuition, the model would be circular and useless. A TG model must therefore be explicit and self-sufficient. Its rules alone must allow us to decide whether a structure is acceptable.

A TG model has four main characteristics:

3. The model must have three components:
 - a phonological component,
 - a syntactic component,
 - a semantic component,so that it parallels the speaker's ability to associate noise and meaning.

Transformational generative grammar

The phonological component deals with phonemes and with the *permissible combination of phonemes*. As far as English is concerned, it offers rules for stress and intonation patterns as well. The work on phonology is an extension of the work done by structuralists, a refinement rather than a reappraisal, and this is the part of the TG model which has received least criticism.

Transformational generative grammar

The semantic component deals with meaning and the interpretation of meaning. Much work has been done in this area and many have criticized Chomsky's techniques. It would be true to say, however, that less satisfactory work has been done with regard to semantics than with regard to phonology and syntax.

A TG model has four main characteristics:

4. Although the model must not rely on the intuition of a native speaker it must be in harmony with such intuition. In other words, it must be able to assign a structure to all sentences which would be accepted **by a native speaker** and reject all sentences which would be rejected **by a native speaker**.

It is with regard to his treatment of syntax that N. Chomsky's approach differs most fundamentally from other models.

A TG model has four main characteristics:

TG is explicit about the fact that native speakers recognize two levels of structure.

A speaker realizes that:

John is easy to please.

John is eager to please.

may look alike but are different at some level in that the first implies:

▪

A TG model has four main characteristics:

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John is easy to please.

John is eager to please.

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A TG model has four main characteristics:

TG is explicit about the fact that native speakers recognize two levels of structure.

A speaker realizes that:

John is easy to please.

John is eager to please.

may look alike but are different at some level in that the first implies:

Someone pleases John .

and the second:

John pleases someone .

A TG model has four main characteristics:

Similarly, a native speaker recognizes that although:

John loves Mary

looks very different from:

Mary is loved by John

they are fundamentally very similar.

A TG model has four main characteristics:

To account for the two levels that a speaker intuitively recognizes, a TG model splits the syntactic component into two plans:

- a base subcomponent
- and a transformational subcomponent.

A TG model has four main characteristics:

The base subcomponent generates (that is, assigns a structure to) the deep underlying pattern so that we can represent it by means of **a tree diagram** (also called a 'labelled bracketing' and a 'phrase marker'), thus:

A TG model has four main characteristics:

S NP + VP

NP det + N

VP V+NP

The transformational subcomponent works on a phrase marker and so generates a surface structure.

A TG model has four main characteristics:

Again, a brief example may help.

The structure:

det + N + V + det + N

underlies thousands of transitive sentences

A TG model has four main characteristics:

Again, a brief example may help.

The structure:

det + N + V + det + N

underlies thousands of transitive sentences such as:

The cat swallowed the mouse.

A TG model has four main characteristics:

The transformational subcomponent accounts for the transformation of such a sentence into such variants as:

The mouse was swallowed by the cat.

The mouse was swallowed.

The swallowing of the mouse (by the cat)

and:

A TG model has four main characteristics:

Transformation rules allow the grammarian to explain:

(1) **deletion**, for example $A+B+C \rightarrow A+B$:

John ran away and Mary ran away ---- John and Mary ran away

(2) **addition/insertion**, for example, $A+B \rightarrow A+B+C$:

Go away --- You go away

He has come ---- He has just come

(3) **permutation**, for example, $A+B+C \rightarrow A+C+B$:

Call John up --- Call up John

(4) **substitution**, for example, $A+B+C \rightarrow A+D+C$:

John arrived and Peter went in ---- On John's arrival Peter went in

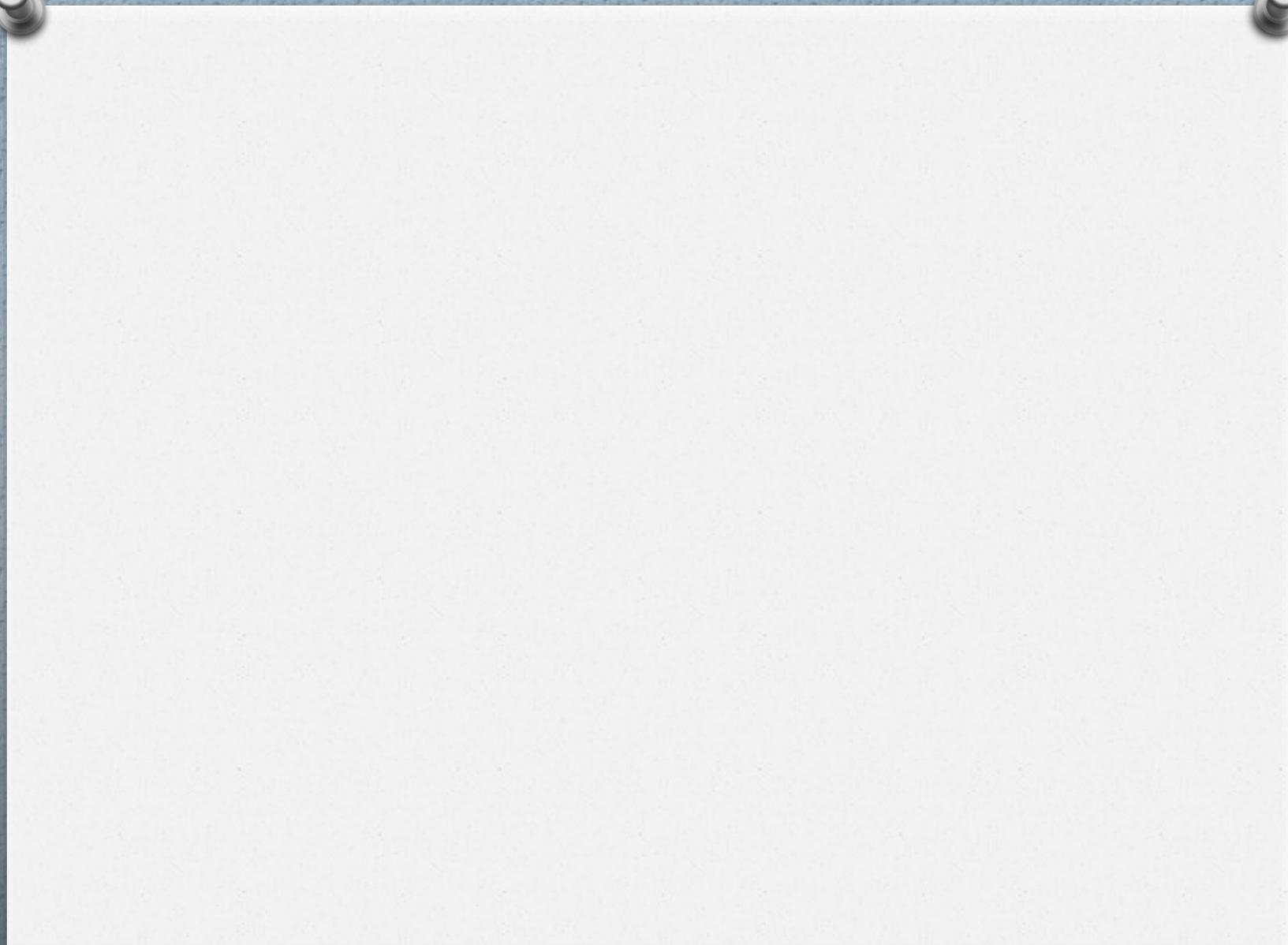
A TG model has four main characteristics:

In brief,

- TG grammar aims to pair a given string of noises with a given **meaning by means of a syntactic component**.
- TG model is neutral with regard to production and reception.
- The ultimate aim of TG is the understanding of language, of **the universals** common to all languages, and through this an understanding of **the human mind**.

To be over for now

* * *



Words and sentences

Jenny loves Johnny.

Johnny loves Sally.

Sally loves Tom.

John beats his wife.

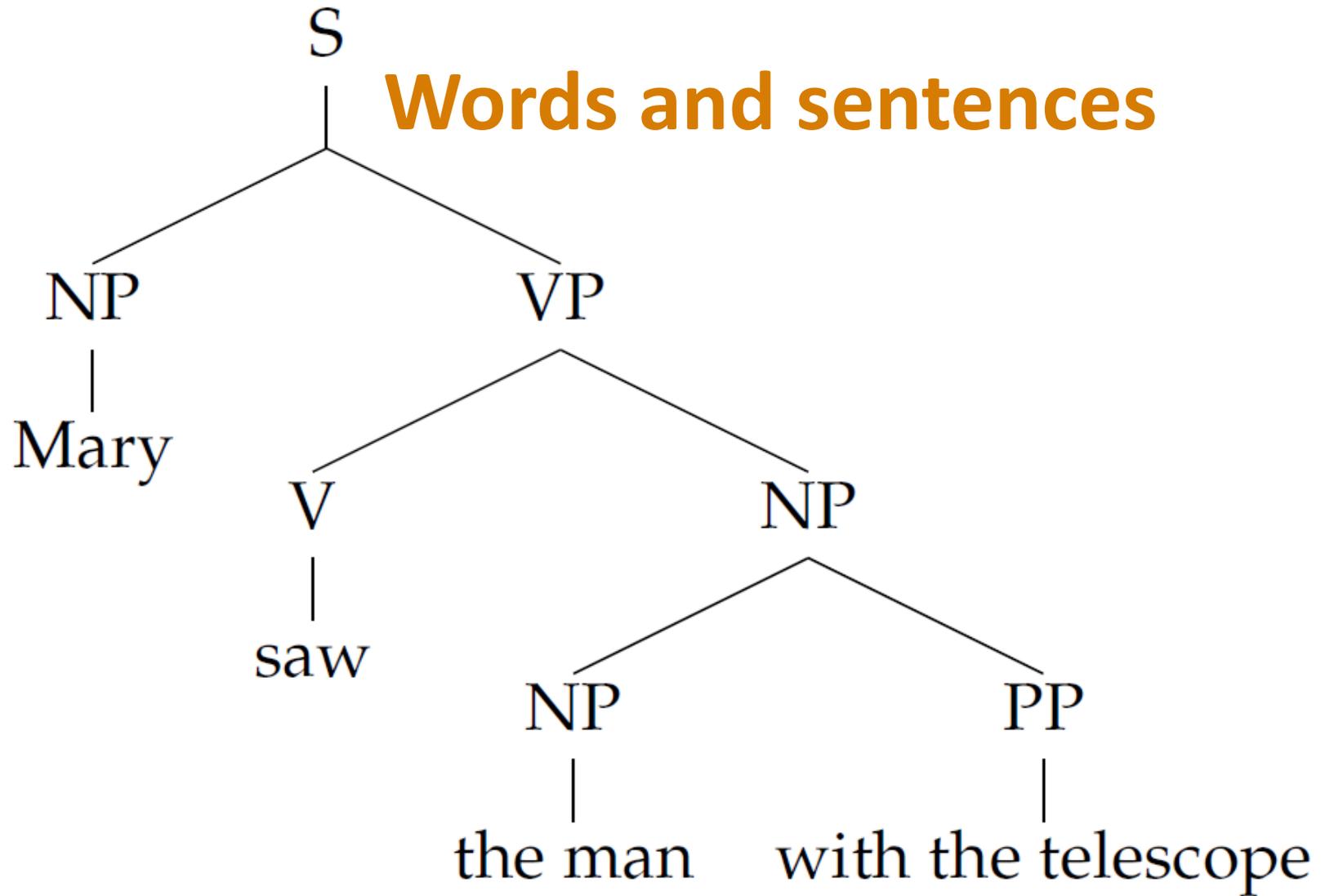
Words and sentences

Mary saw the man with the telescope.

Words and sentences

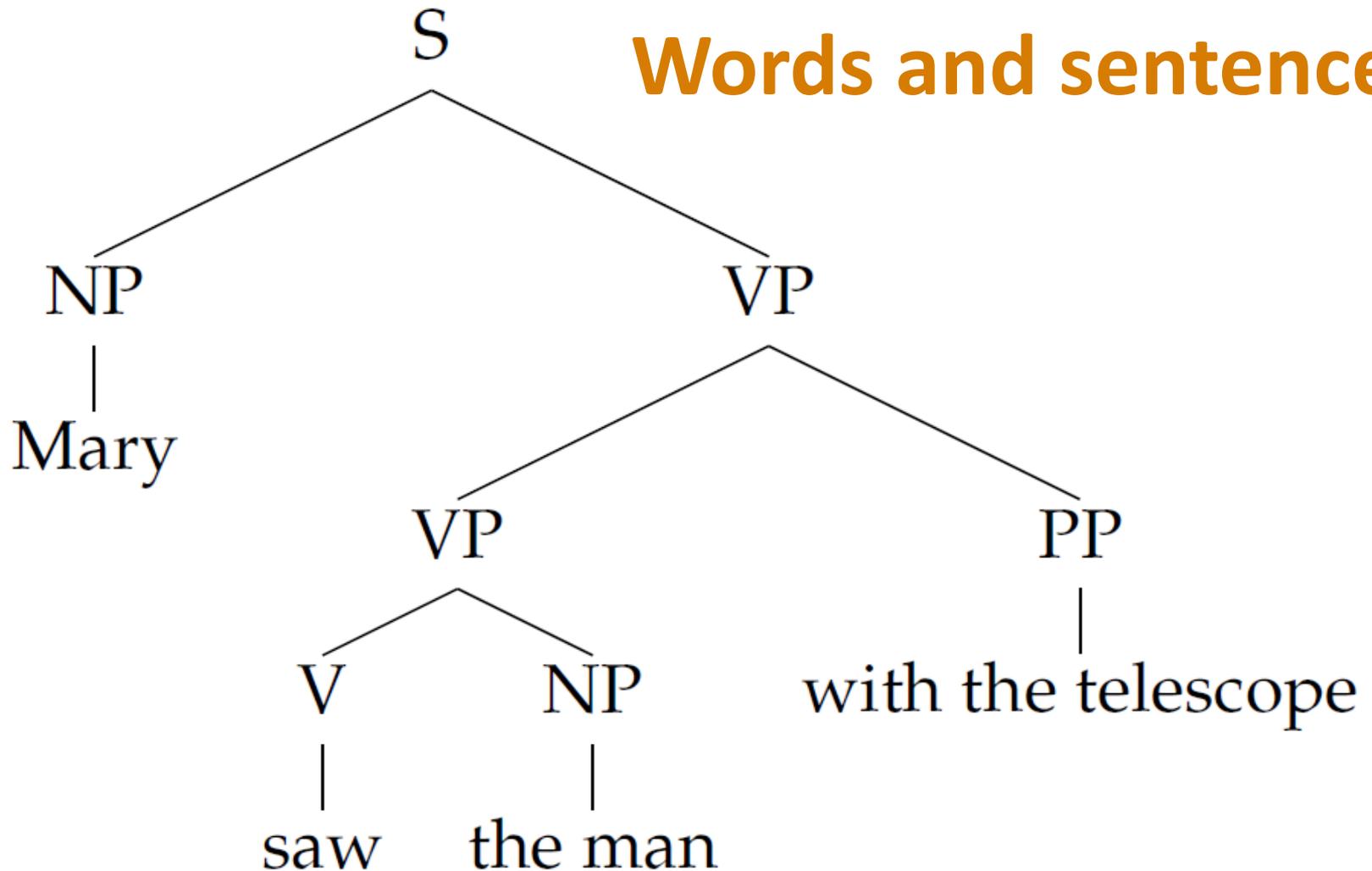
Mary saw the man with the telescope.

Mary saw the man with the telescope.



Mary saw the man with the telescope.

Words and sentences



THE BIG IDEA

The **meaning of sentences** depends not just on the meaning of words, but also on the rules of putting words together.

THE BIG DISCOVERY

Investigators of **language in use**
/that is doing discourse analysis/
would prefer the term **utterance**
to the term **sentence**
for **the analysis of the turns**
people take **in conversation.**

THE BIG DISCOVERY

THE UTTERANCE

The Utterance is performed by a certain speaker with a certain intonation, facial expression, body language, etc.

THE BIG DISCOVERY

THE UTTERANCE

- ❑ Who exactly (personally)
- ❑ says what
- ❑ /where, when, under what circumstances,
- ❑ why, to whom/
- ❑ with what effect.

The Utterance is performed by a certain speaker with a certain intonation, facial expression, body language, etc.

THE BIG DISCOVERY

THE UTTERANCE

Utterances are embedded in a

- ❑ particular context
- ❑ and situation.
- ❑ This is why we often don't notice ambiguities in sentences : we quickly home in on the right interpretation.

THE BIG DISCOVERY

THE UTTERANCE

Utterances MEANINGS are

- ❑ Personal,
- ❑ Contextualized,
- ❑ Situational,
- ❑ Interpersonal,
- ❑ Negotiable [nɪ'gəʊʃɪəbl].

THE BIG DISCOVERY

THE SENTENCE

The Sentence MEANINGS is viewed as:

- Per se,
- Linguistic,
- Sometimes just conventional,
- Independent of the Speaker's person,
- NOT based on some specific extralinguistic context any context of use, time, space, situation, subjective purposefulness.**

THE PROPOSITION

THE TWO SENTENCES

a. 'Mary saw John yesterday.'

and

b. 'Yesterday Mary saw John.'

share the same proposition I—.

Пропозиция понимается как некое
вербализованное логическое
утверждение.

THE PROPOSITION

THE TWO SENTENCES

a. 'Mary saw John yesterday.'

and

b. 'Yesterday Mary saw John.'

Any two sentences, expressing the same proposition, paraphrase one another /and are generally viewed paraphrases of each other/.

UTTERANCES, SENTENCES, AND PROPOSITIONS

These three terms are used to describe different levels of language.

The most concrete is **utterance**: an utterance is created by speaking (or writing) a piece of language. If I say Ontogeny recapitulates phylogeny, this is one utterance. If another person in the same room also says Ontogeny recapitulates phylogeny, then we would be dealing with two utterances.

Utterances, sentences, and propositions

Sentences, on the other hand, are abstract grammatical elements obtained from utterances. Sentences are abstract because if a third and fourth person in the room also say

Ontogeny recapitulates phylogeny with the same intonation, we will want to say that we have met four utterances of the same sentence. In other words, **sentences are abstracted, or generalized, from actual language use.**

Utterances, sentences, and propositions

One example of this abstraction is direct quotation. If someone reports He said “Ontogeny recapitulates phylogeny,” she is unlikely to mimic the original speaker exactly. Usually the reporter will use her normal voice and thus filter out certain types of information: the difference in pitch levels between men, women, and children; perhaps some accent differences due to regional or social variation; and certainly those phonetic details which identify **individual speakers**.

Utterances, sentences, and propositions

Speakers seem to recognize that at the level of the sentence these kinds of information are not important, and so discard them.

So we can look at sentences from the point of view of the speaker, where they are abstract elements to be made real by uttering them; or from the hearer's point of view, where they are abstract elements reached by filtering out certain kinds of information from utterances.

Utterances, sentences, and propositions

One further step of abstraction is possible for special purposes: to identify **propositions**.

In trying to establish rules of valid deduction, logicians discovered that certain elements of grammatical information in sentences were irrelevant; for example, the difference between active and passive sentences:

1.17 Caesar invaded Gaul.

1.18 Gaul was invaded by Caesar.

Utterances, sentences, and propositions

From a logician's perspective, these sentences are equivalent, for whenever 1.17 is true, so is 1.18. Thus the grammatical differences between them will never be significant in a chain of reasoning and can be ignored.

.

Utterances, sentences, and propositions

Other irrelevant information (for these purposes) includes what we will call *information structure*, that is the difference between the following sentences:

1.19 It was Gaul that Caesar invaded.

1.20 It was Caesar that invaded Gaul.

1.21 What Caesar invaded was Gaul.

1.22 The one who invaded Gaul was Caesar.

Utterances, sentences, and propositions

These sentences seem to share a description of the same state of affairs. Once again, if one is true all are true, and if one is false then all are false. To capture this fact, logicians identify a **common proposition**.

Utterances, sentences, and propositions

Such a **proposition** can be represented in various special ways to avoid confusion with the various sentences that represent it, for example by using capitals:

1.23 CAESAR INVADED GAUL.

Thus the proposition underlying the sentence The war ended might be written:

1.24 THE WAR ENDED.

Utterances, sentences, and propositions

Logicians commonly use formulae for propositions in which the verb is viewed as a function, and its subject and any objects as arguments of the function. Such formulae often delete verb endings, articles, and other grammatical elements, so that corresponding to 1.23 and 1.24 we would get 1.25 and 1.26 below: 1.25 invade (caesar, gaul); 1.26 end (war)

Utterances, sentences, and propositions

Propositions then can be a way of capturing part of the meaning of sentences. They are more abstract than sentences because, as we saw in examples 1.17–22 above, the same proposition can be represented by several different statements. Moreover, in non-statements like *questions*, *orders*, they cannot be the complete meaning since such sentences include an indication of the **speaker's attitude to the proposition**.

Utterances, sentences, and propositions

To sum up: utterances are real pieces of speech. By filtering out certain types of (especially phonetic) information we can get to abstract grammatical elements, sentences.

By going on to filter out certain types of grammatical information, we can get to propositions, which are descriptions of states of affairs and which some writers see as a basic element of sentence meaning.

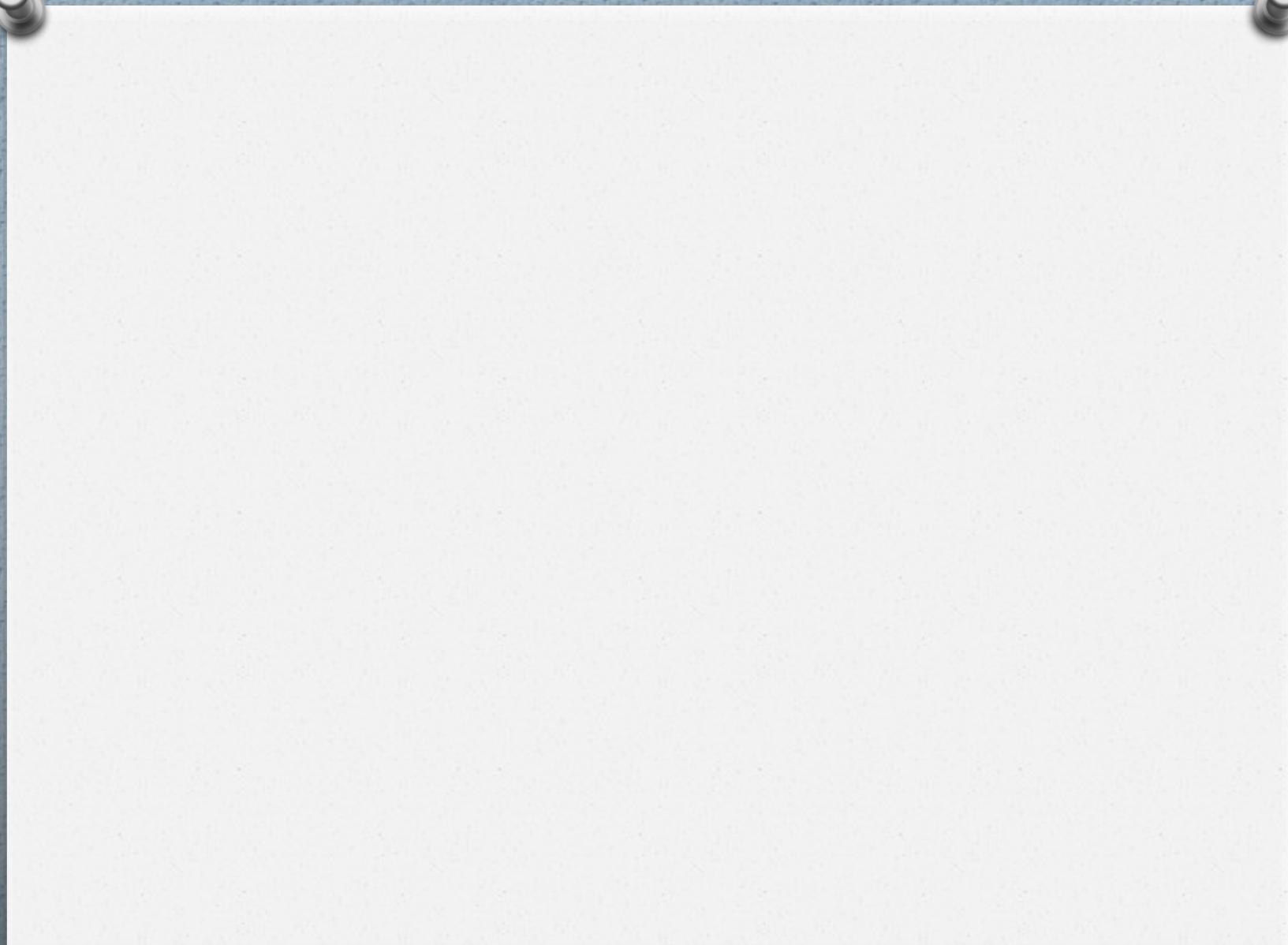
PRESUPPOSITIONS

Presupposition

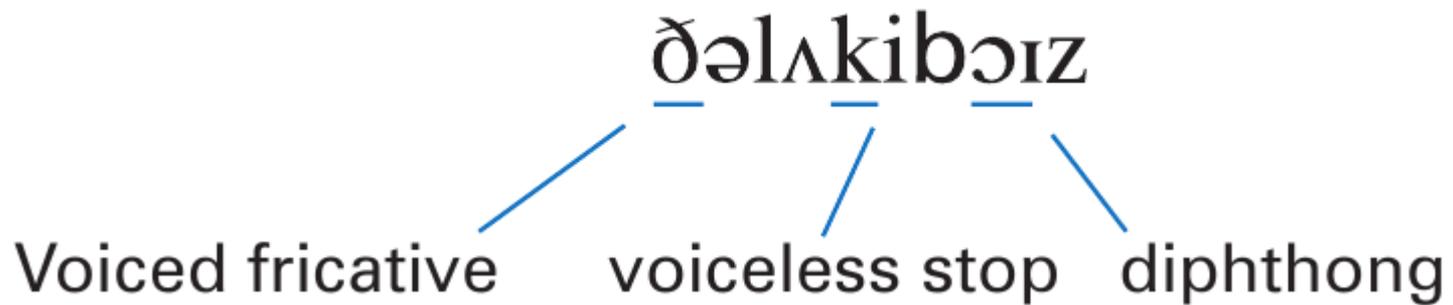
Presupposition: what is assumed by the speaker and/or assumed by him to be known to the hearer before he or she makes the utterance.

•Such semantic presupposition can be defined as a truth relation. As in the following example, if someone utters (a), then he or she must presuppose (b); otherwise, what he or she utters is nothing but nonsense:

- ❑ • (a) Mary's dog is barking.
- ❑ • (b) Mary has a dog.



SYNTACTIC STRUCTURES / PATTERNS OF LANGUAGE



prefixes, root words, & suffixes

word	prefix & meaning		root & meaning		suffix & meaning	
	independently	in	not, without	dependent	to rely on another	ly
reliability	re	back, again	liable	responsible	ity	state of
rapidly	-	-	rapid	quickly	ly	characterized by
multitasked	multi	many	task	a piece of work to be done or undertaken	ed	forming the past participle of
disappeared	dis	the opposite of, not	appear	the way that something or someone looks	ed	forming the past participle
rider	-	-	ride	sit on and control the movement of	er	one who
impossible	im	not	possible	able to be done	ible	is, can be

prefix-A prefix is added to the beginning of a base or root word to change its

Syntactic structures / patterns of language

We can take the same expression and describe it as a sequence of morphemes.

the

functional

luck

lexical

-y

derivational

boy

lexical

-s

inflectional

With these descriptions, we could characterize all the words and phrases of a language in terms of their phonology and morphology.

Syntactic structures / patterns of language

article	adjective	noun	verb	article	noun	preposition
The	lucky	boys	found	a	backpack	in
article	noun	conjunction	pronoun	verb	pronoun	adverb
the	park	and	they	opened	it	carefully

Syntactic structures / patterns of language

However, we have not accounted for the fact that these words can only be combined in a limited number of patterns. We recognize that the phrase *the lucky boys* is a well-formed phrase in English, but that the following two “phrases” are not at all well-formed.

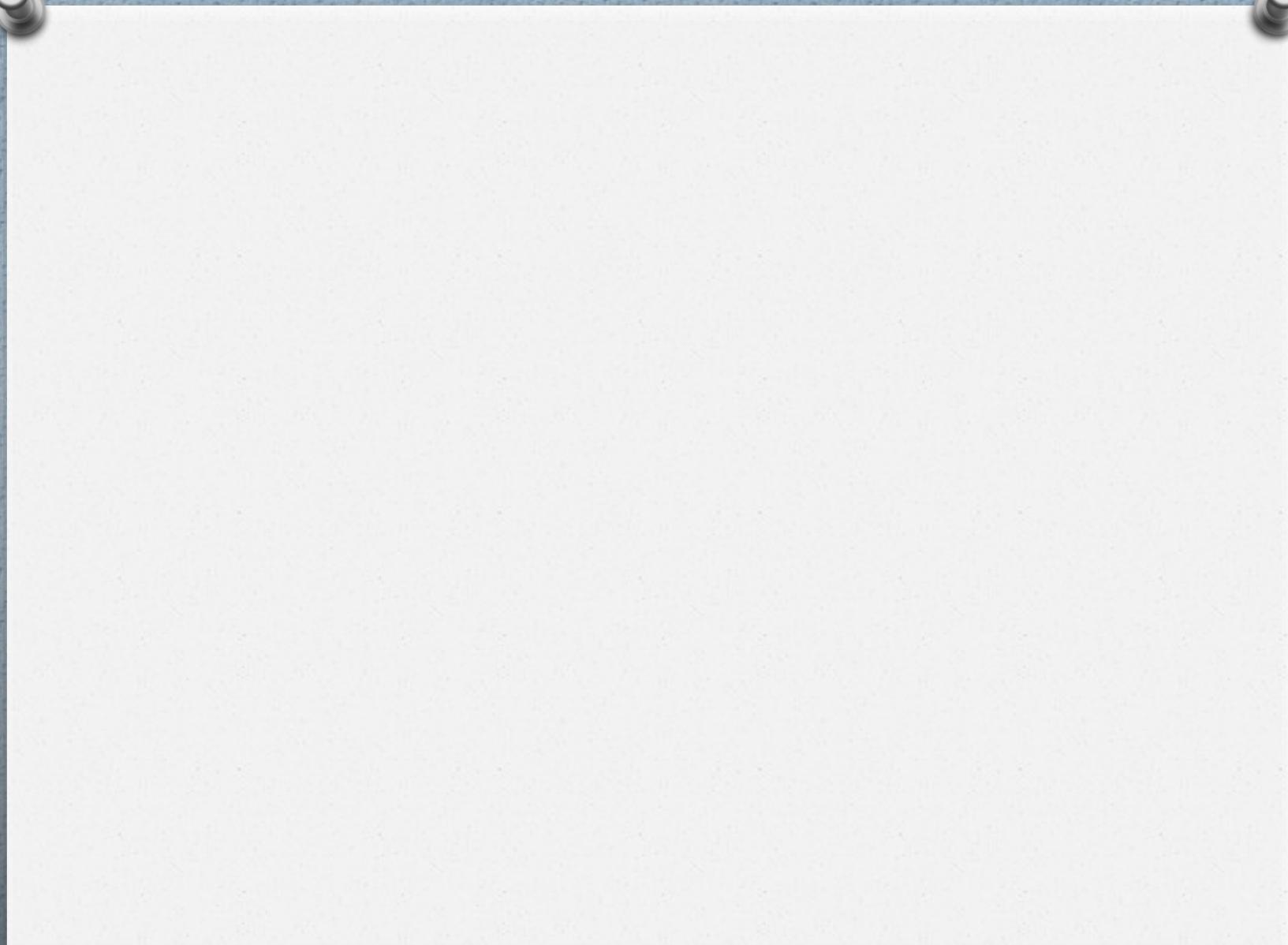
**boys the lucky* **lucky boys the*

(We use an asterisk * to indicate that a form is unacceptable or ungrammatical.)

Grammar can be based on grammatical sequences in a language

From these examples, we can see that English has strict rules for combining words into phrases.

The article (the) must go before the adjective (lucky), which must go before the noun (boys). So, in order to be grammatical, this type of phrase must have the sequence article + adjective + noun (and not *noun + article + adjective, for example). The process of describing the structure of phrases and sentences in such a way that we account for all the *grammatical sequences in a language* and *rule out* all the ungrammatical sequences *is one way of defining grammar*.



Phrase Structure Grammar

2. Transformational rules

To account for these shortcomings in Phrase Structure Grammar, Chomsky proposed an **additional level of rules** which assists in translating deep structures to surface structure sentences.

Phrase Structure Grammar

2. Transformational rules

Transformational Rules : these rules help transform the deep structure into the surface structure.

The *manipulation of verb tenses* is one aspect of transformational rules.

Present tense, past tense, subjunctive, past perfect, future tense *are all derived through transformational rules.*

Phrase Structure Grammar

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Present tense, past tense, subjunctive, past perfect, future tense *are all derived through transformational rules.*

Generative Grammar approach

In theoretical linguistics, generative grammar refers to a particular approach to the study of syntax.

A generative grammar of a language attempts to give a **set of rules** that will correctly predict which combinations of words will form grammatical sentences.

In most approaches to generative grammar, the rules will also predict the morphology of a sentence.

Transformational-Generative Grammar

In linguistics, transformational grammar (TG) or transformational-generative grammar (TGG) is part of the theory of generative grammar, especially of natural languages. It considers grammar to be a system of rules that generate exactly those combinations of words that form grammatical sentences in a given language and involves the use of defined operations (called transformations) to produce new sentences from existing ones.

"I-language" and "E-language"

In 1986, Chomsky proposed a distinction between I-language and E-language that is similar but not identical to the **competence/performance distinction**.

"I-language" refers to internal language and is contrasted with "E-language", which refers to external language.

I-language is taken to be the object of study in linguistic theory; it is the mentally represented linguistic knowledge that a native speaker of a language has and so is a mental object.

"I-language" and "E-language"

From that perspective, most of theoretical linguistics is a branch of psychology.

E-language encompasses all other notions of what a language is, such as a body of knowledge or behavioural habits shared by a community.

"I-language" and "E-language"

Thus, E-language by itself is not a coherent concept, and Chomsky argues that such notions of language are not useful in the study of innate linguistic knowledge or competence even though they may seem sensible and intuitive and useful in other areas of study.

Competence, he argues, can be studied only if languages are treated as mental objects.

Transformations

The usual usage of the term 'transformation' in linguistics refers to a rule that takes an input, typically called the **Deep Structure (in the Standard Theory)** or D-structure (in the extended standard theory or **government and binding theory**), and changes it in some restricted way to result in a Surface Structure (or S-structure). In TGG, Deep structures are generated by a set of **phrase structure rules**.

Transformations

For example, a typical transformation in TG is the operation of **subject-auxiliary inversion (SAI)**. That rule takes as its input a declarative sentence with an auxiliary: "John has eaten all the heirloom tomatoes." and transforms it into "Has John eaten all the heirloom tomatoes?" In the original formulation (Chomsky 1957), those rules were stated as rules that held over strings of terminals, constituent symbols or both.

X NP AUX Y X AUX NP Y (NP = Noun Phrase and AUX = Auxiliary)

Transformations

The earliest conceptions of transformations were that they were **construction-specific devices**.

For example, there was a transformation that turned active sentences into passive ones.

A different transformation raised **embedded subjects** into main clause subject position in sentences such as "John seems to have gone", and still a third reordered arguments in the dative alternation.

Transformations

With the shift from rules to principles and constraints that was found in the 1970s, those construction-specific transformations morphed into general rules (all the examples just mentioned are instances of NP movement), which eventually changed into the single general rule of **move alpha** or Move.

Transformations

Transformations actually come in two types: (i) the post-Deep structure kind mentioned above, which are string or structure changing, and (ii) Generalized Transformations (GTs). Generalized transformations were originally proposed in the earliest forms of generative grammar (such as in Chomsky 1957).

Transformations

They take small structures, either atomic or those generated by other rules, and combine them. For example, the generalized transformation of embedding would take the kernel "Dave said X" and the kernel "Dan likes smoking" and combine them into "Dave said Dan likes smoking." GTs are thus structure building, rather than structure changing.

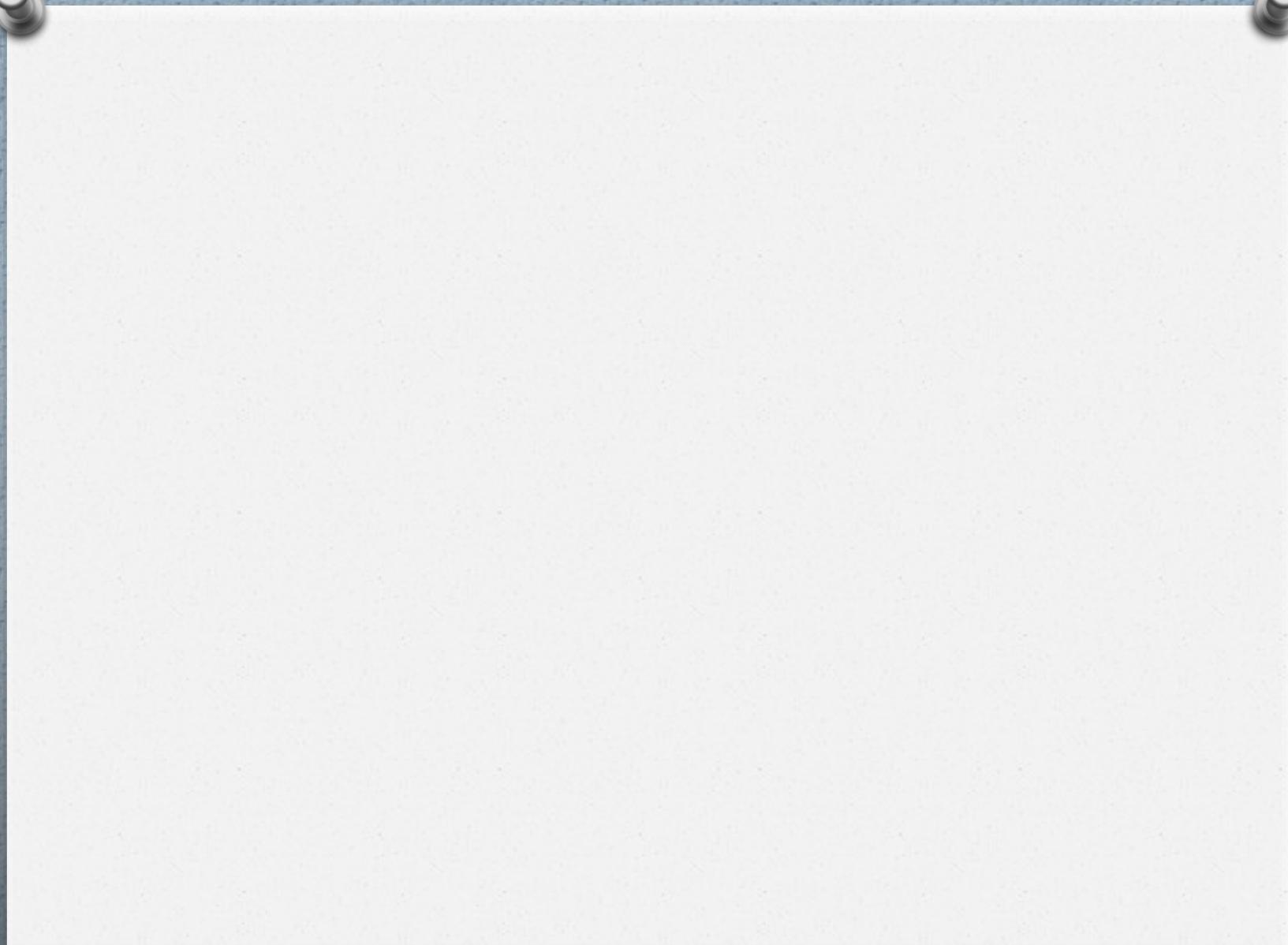
Transformations

In the Extended Standard Theory and **government and binding theory**, **GTs** were abandoned in favor of **recursive phrase structure rules**.

However, they are still present in tree-adjointing grammar as the Substitution and Adjunction operations, and they have recently re-emerged in mainstream generative grammar in Minimalism, as the operations Merge and Move.

Transformations

In **generative phonology**, another form of transformation is the **phonological rule**, which describes a mapping between an underlying representation (the phoneme) and the surface form that is articulated during natural speech



EXPRESSIVE SYNTAX

David Crystal about Terry Pratchett

A. The old, ruined house stood on the hillside.

David Crystal versus Terry Pratchett

- A. The old, ruined house stood on the hillside.
- B. The house, old, ruined stood on the hillside.

David Crystal versus Terry Pratchett

A. The old, ruined house stood on the hillside.

B. The house, old, ruined stood on the hillside.

Q1. Which one is creepier?

Q2. Why?

David Crystal versus Terry Pratchett

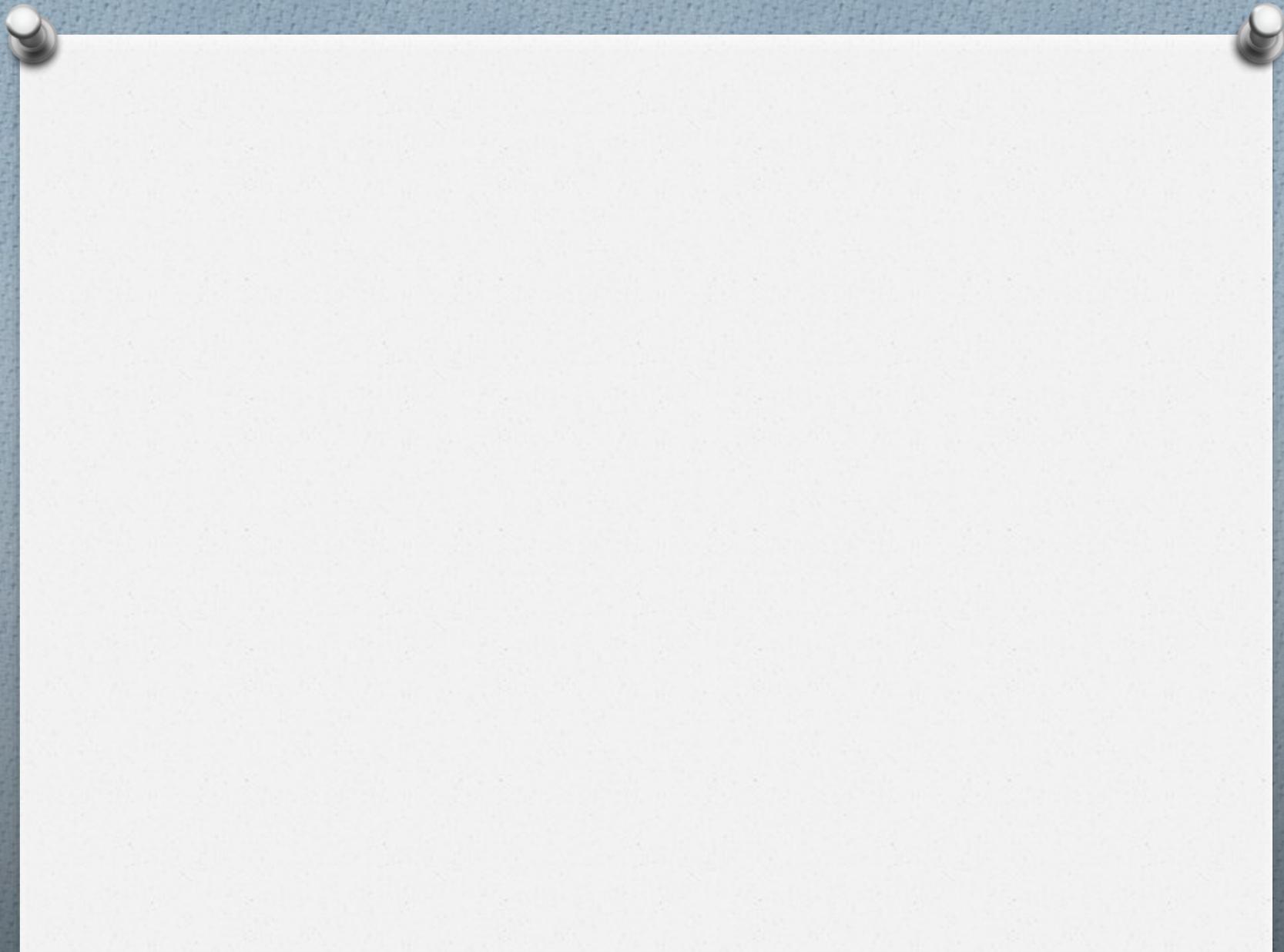
“Can we do another one?” she asked.

“Here’s one,” I said. “Which is more atmospheric:

‘He saw the gleam of ten thousand green, red and white eyes.’

‘He saw the gleam of ten thousand eyes, green, red and white.’”

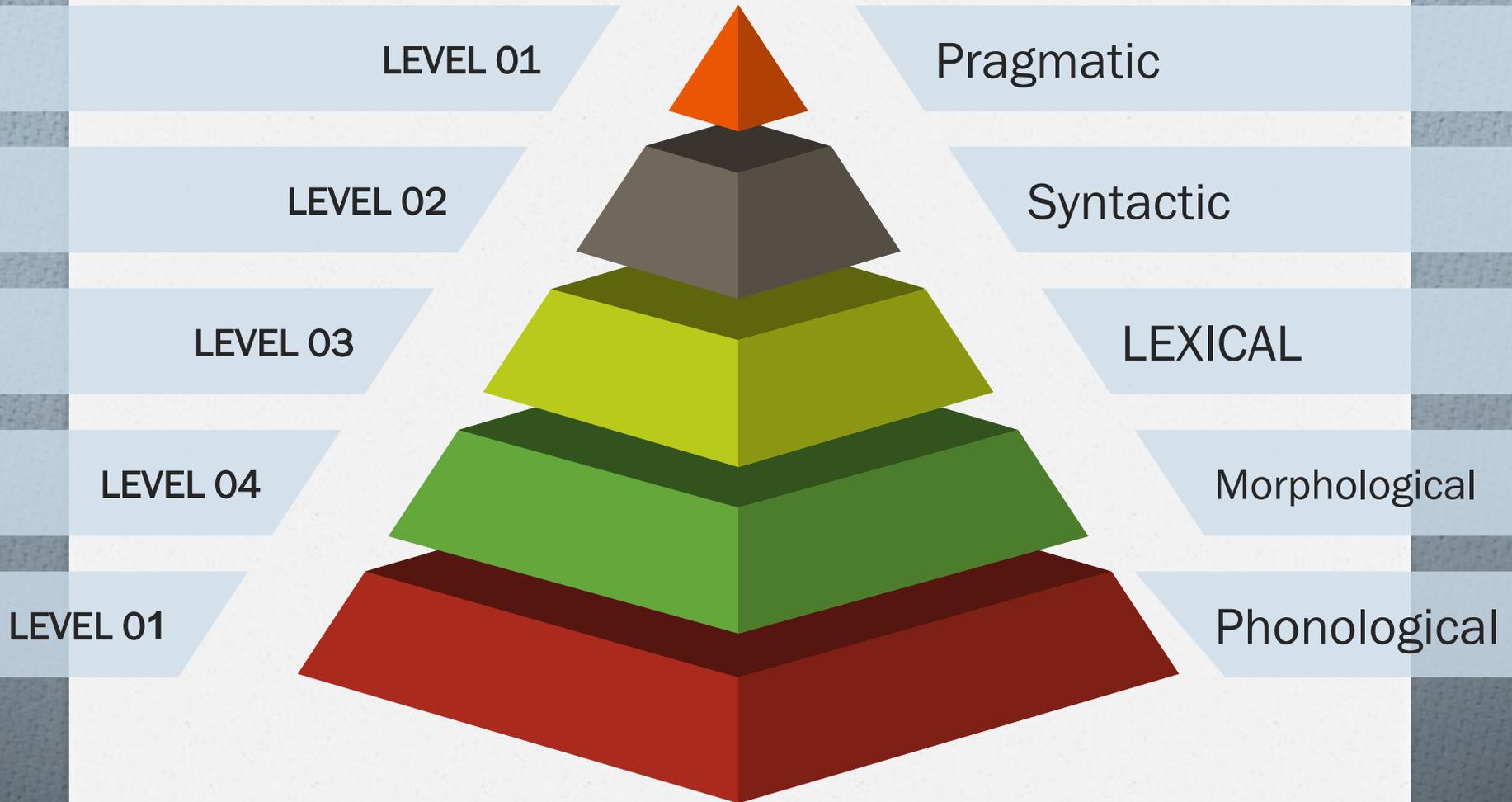
“The second again,” she said. “It’s a lovely sentence.”

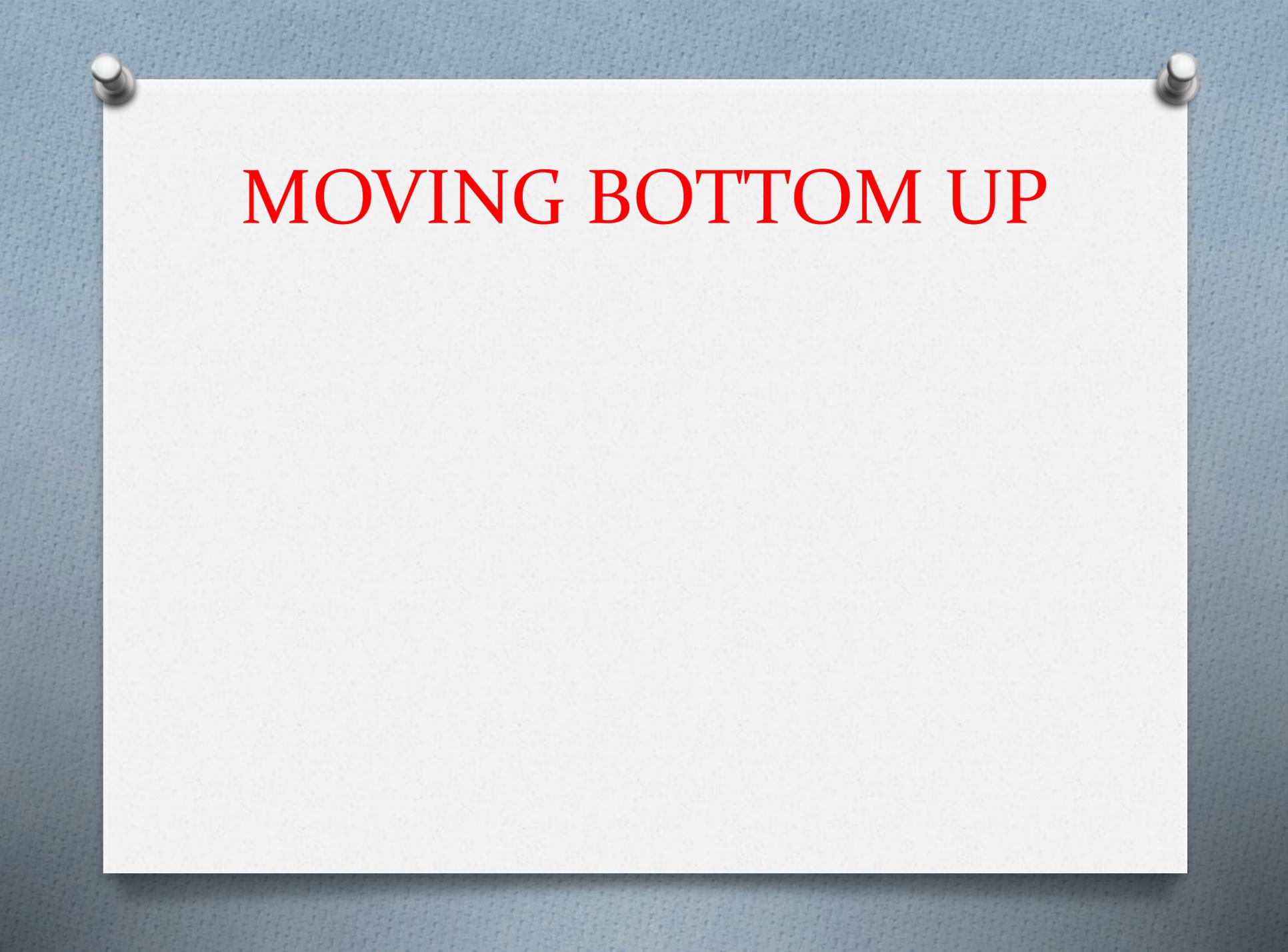




MOVING TOP DOWN

TOP DOWN MODEL





MOVING BOTTOM UP

BOTTOM UP

LEVEL 05

PRAGMATIC

LEVEL 4

Syntactic

LEVEL 03

Lexical

LEVEL 02

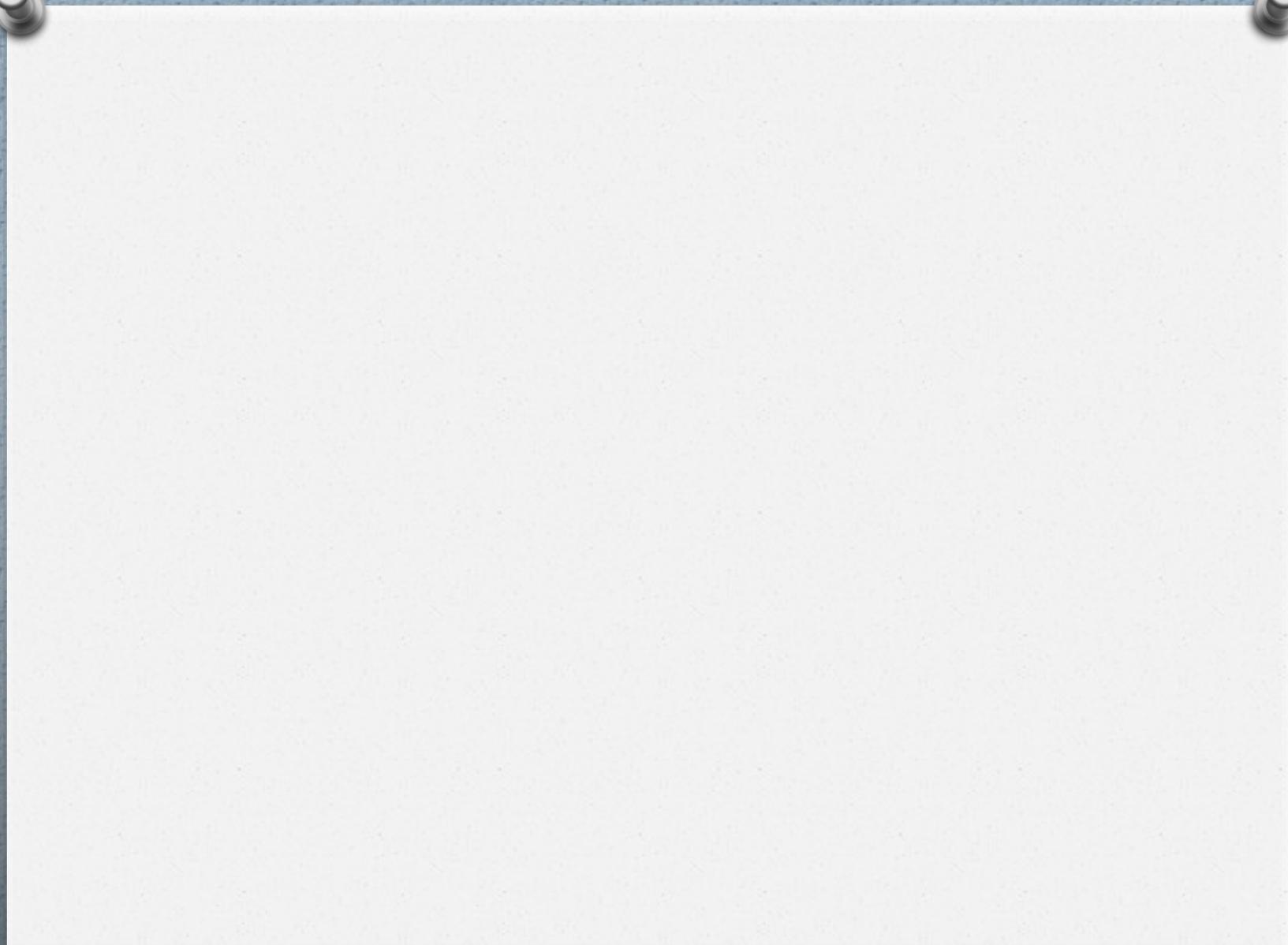
Morphological

LEVEL 01

Phonological



Layers	Levels of linguistic consideration
Communicative Event / Text / Discourse / Genre / Interaction construction	<i>Etic</i> : Real life episodes of communication. <i>Emic</i> ['i:mɪk]: Schemata of communication.
Syntactic	Schemes / Schemata of message construction
Lexical	Independent meaningful units
Morphological	Minimal (bound) signs / signification units
Phonological	Distinctive, differentiating and accumulative functions



David Crystal versus Terry Pratchett

“Can we do another one?” she asked.

“Here’s one,” I said. “Which is more atmospheric:

‘He saw the gleam of ten thousand green, red and white eyes.’

‘He saw the gleam of ten thousand eyes, green, red and white.’”

“The second again,” she said. “It’s a lovely sentence.”

“It is,” I said, “but I didn’t write it. You’ll find it in chapter 13 of *The Carpet People*. By Terry Pratchett.” ●

David Crystal is a British linguist, academic, author and broadcaster

Bottom-up approach to linguistic analysis

1) Phonetics, Phonology

This is the level of sounds. One must distinguish here the set of possible human sounds, which constitutes the area of phonetics proper, and the set of system sounds used in a given human language, which constitutes the area of phonology.

Phonology is concerned with classifying the sounds of language and with saying how the subset used in a particular language is utilised, for instance what **distinctions** in meaning can be made on the basis of what sounds.

Bottom-up approach to linguistic analysis

2) Morphology

This is the level of words and endings, to put it in simplified terms. It is what one normally understands by grammar (along with syntax). The term morphology refers to the analysis of minimal forms in language which are, however, themselves comprised of sounds and which are used to construct words which have either a grammatical or a lexical function.

Lexicology is concerned with the study of the lexicon from a formal point of view and is thus closely linked to (derivational) morphology.

Bottom-up approach to linguistic analysis

3) Syntax

This is the level of sentences. It is concerned with the meaning of words in combination with each other to form phrases or sentences. In particular it involves differences in meaning arrived at by changes in word order, the addition or subtraction of words from sentences or changes in the form of sentences. It furthermore deals with the relatedness of different sentence types and with the analysis of ambiguous sentences.

Language typology attempts to classify languages according to high-order principles of morphology and syntax and to make sets of generalisations across different languages irrespective of their genetic affiliations, i.e. of what language family they belong to.

Bottom-up approach to linguistic analysis

4) Semantics This is the area of meaning. It might be thought that semantics is covered by the areas of morphology and syntax, but it is quickly seen that this level needs to be studied on its own to have a proper **perspective on meaning in language.**

Here one touches, however, on **practically every other level of language** as well as there exists lexical, grammatical, sentence and utterance meaning.

Bottom-up approach to linguistic analysis

5) Pragmatics The concern here is with the use of language in specific situations.

The *meaning of sentences* need not be the same in an abstract form and in practical use. In the latter case one speaks of *utterance meaning*. The area of pragmatics relies strongly for its analyses on the notion of speech act which is concerned with the actual performance of language. This involves the notion of proposition – roughly the *content of a sentence* – and *(then?)* the intent and effect of an utterance.

PHRASE STRUCTURE

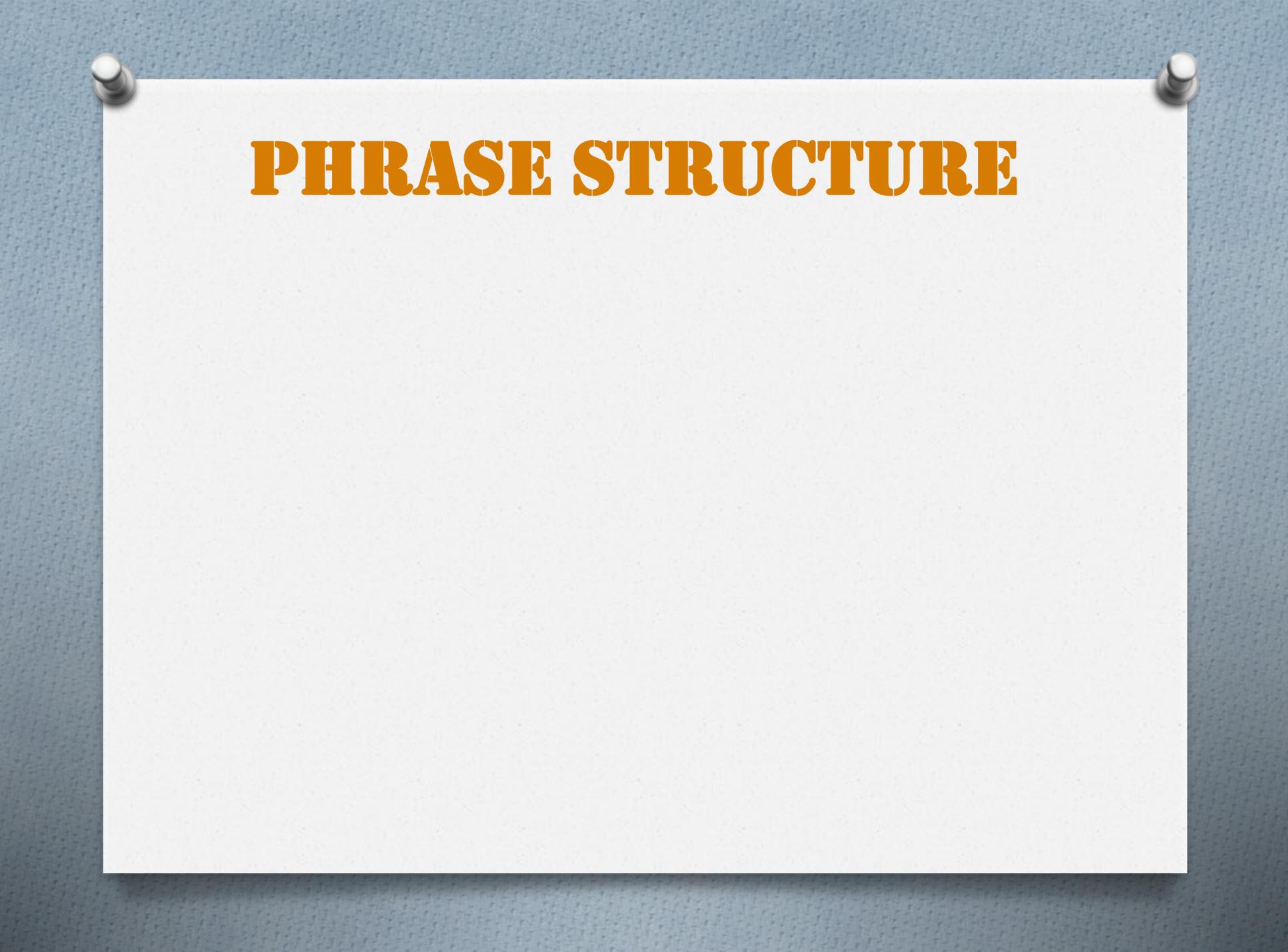
There is a level of structure that is intermediate between a sentence and a word.

PHRASE STRUCTURE

The big red fox forms a **unit, a constituent**.
Under the circumstances, this one unit
can be replaced with just “**she**”.

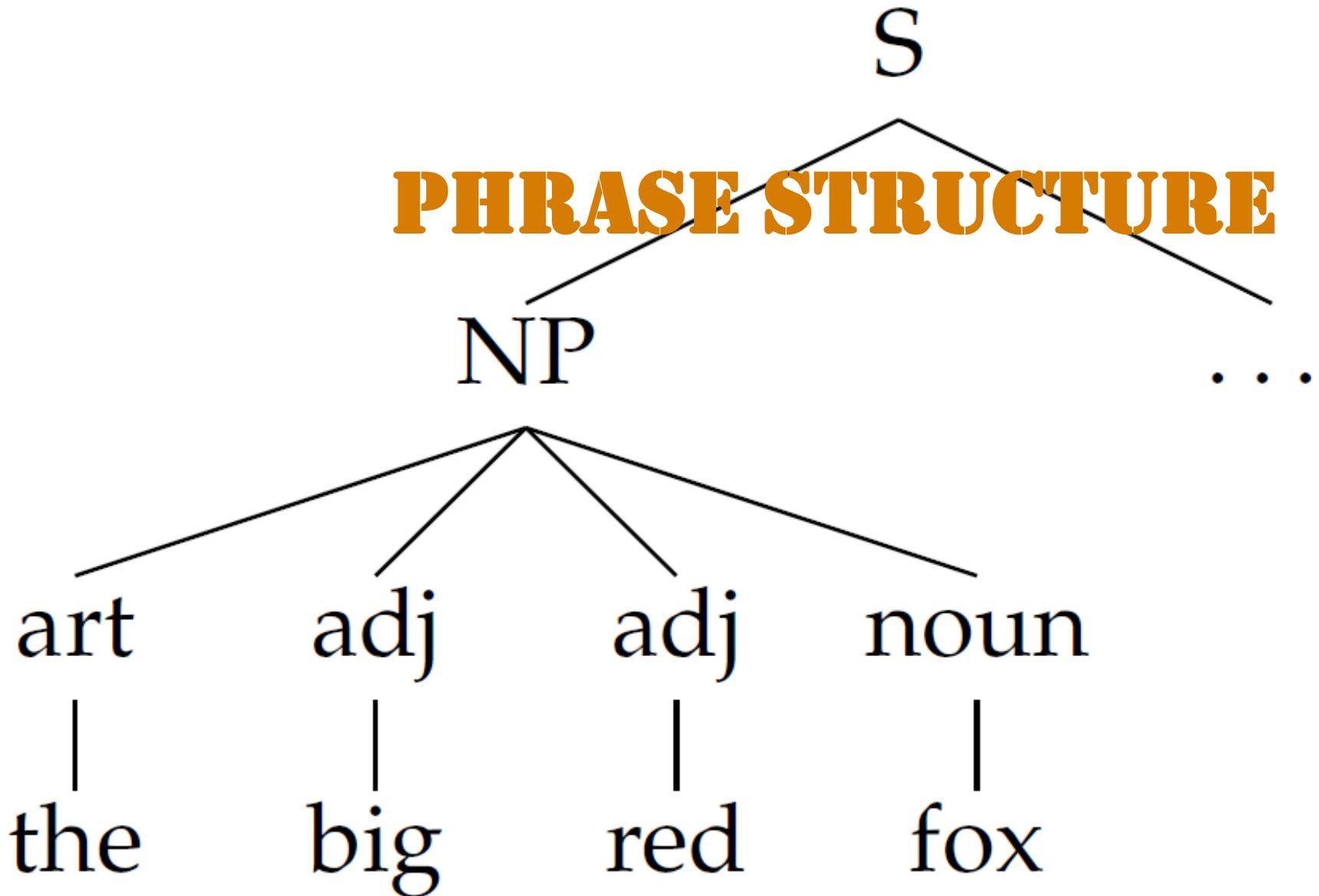
PHRASE STRUCTURE

The big red fox forms a **unit, a constituent**.
In many approaches to
syntax you may see this unit called a **phrase**.



PHRASE STRUCTURE

PHRASE STRUCTURE



A

1

2

3

4

5

6

7

8

9

10

11

XII

Syntax ['sɪntæks]

When we concentrate on the structure and ordering of components within a sentence, we are studying the syntax of a language.

The word “syntax” comes originally from **Greek** and literally means “a putting together” or “arrangement.”

Syntax ['sintæks]

When we set out to provide an analysis of the syntax of a language, we try to adhere to the “all and only” criterion. So we might do better with a rule stating that we put a preposition before a noun phrase (not just a noun).

A **noun phrase** can consist of a proper noun (London), a pronoun (you) or a combination of an article (a, the) and a noun (tree, dog), so that the revised rule can produce these well-formed structures:

near London, with you, near a tree, with the dog.

Syntax ['sɪntæks]

When we have an effective rule such as
“a prepositional phrase in English consists of a
preposition followed by a noun phrase,”
we can imagine an extremely large number of
English phrases that could be produced using this rule.

Syntax ['sintæks]

The goal of syntactic analysis is to have a small and finite (i.e. limited) set of rules that will be capable of producing a large and potentially infinite (i.e. unlimited) number of well-formed structures.

This small and finite set of rules is sometimes described as a **generative grammar** because it can be used to “generate” or produce sentence structures and not just describe them.

PHRASE STRUCTURE

Another way to say the same thing
is to express it as
a phrase structure rule =>

PHRASE STRUCTURE

NP => Art Adj Adj N

PHRASE STRUCTURE

VP => ...?

PHRASE STRUCTURE

Besides noun phrases (NPs)
verb phrases (VPs),
prepositional phrases
(PPs) and maybe others could be
elicited.

Soden, p.58

CONSTITUENCY TESTS

Pronoun substitution can be used as a test to find constituents.

However, one may need more tests.

CONSTITUENCY TESTS

To test for syntactic constituents one can use a particular sentence structure of English: the cleft sentence – the one that has the following schematic structure:

(14) It is X that Y.

CONSTITUENCY TESTS

(14) It is X that Y.

This is the House that Jack built.

It was Jack who built that House.

CONSTITUENCY TESTS

- a. It is the big red fox that quickly ate the yellow chicken.
- b. It is the yellow chicken that the big red fox quickly ate.
- c. It is quickly that the big red fox ate the yellow chicken.

SYNTAX

There are two basic components of language:

Words/Morphemes: A set of basic units with different meanings or grammatical functions

Rules/Principles: The rules that allow the morphemes to be combined into larger objects

Syntax is the study of these sort of rules assembling words into sentencesю

Syntax is infinite and generative.

Syntax has structures:

constituents, phrases, clauses ...

Generative Grammar approach

In theoretical linguistics, generative grammar refers to a particular approach to the study of syntax.

A generative grammar of a language attempts to give a **set of rules** that will correctly predict which combinations of words will form grammatical sentences.

In most approaches to generative grammar, the rules will also predict the morphology of a sentence.

Infinity of Syntax

“New rules will allow the collection of DNA from most people arrested or detained by federal authorities.” (Hits in Google)

“New rules will allow the collection of DNA” 0

“New rules will allow the collection of”

“New rules will allow the collection” 0

“New rules will allow the”

“New rules will allow” ,600

“New rules will” ,000

“New rules” ,650,000

“New” ,190,000,000

Every sentence you hear is new!

Infinity of Syntax

Generative grammar

A valid sentence is generated from Noam Chomsky [1928- ??] Syntactic Structures (1957)

Generative Grammar:

A **valid sentence** is generated from a root according to some fixed rules (grammar).

Infinity of Syntax

Generative grammar

A valid sentence is generated from Noam Chomsky [1928- ??] Syntactic Structures (1957)

Generative Grammar:

An example in Syntactic Structures sentence:

Infinity of Syntax

Generative grammar

A valid sentence is generated from Noam Chomsky [1928- ??] Syntactic Structures (1957)

Generative Grammar:

A generative grammar in Syntactic Structures
sentence NP +VP

NP = T+ N

VP Verb + NP

T the

N man ball

Verb hit ...

The purpose of grammar

Generative grammar

English Grammar

The man hit the ball.

subject - verb - object

The man saw the girl with a telescope.

subject - verb - object

The purpose of grammar

Is to tell whether a sentence is valid.

Chomsky: to have an device to generate all

Valid sentences in the target language.

The purpose of grammar

Some Properties of the Grammar

The grammar will generate all the well- formed syntactic structures (e.g. sentences) of the language and fail to generate any ill- formed structures.

The grammar will have a **finite number of rules**, but will be capable of generating an **infinite number of well-formed structures** (the productivity of language)

The purpose of grammar

Deep and surface structure

Every Sentence exists on two levels :

Surface Structure : the actual spoken sentence.

Deep Structure : underlying meaning of the sentence.

A single deep structure idea can be expressed in many different surface structures :

Deep Structure : Boy kisses girl.

Surface structure : The boy kissed the girl.

The boy was kissing the girl. The girl was kissed by the boy.

The purpose of grammar

Surface and Deep Structure

The **deep structure** gives the semantic component of a sentence, while **the surface structure** gives the proper phonological information to express that thought.

The purpose of grammar

Structural ambiguity

Morphology talks about sequences of morphemes. To talk about syntactic regularities requires reference to **constituent structure**.

Semantic interpretation of sentences also requires information about constituent structure:

Pick up a big red block.

in particular, if sentences are **structurally ambiguous**:

John saw the man with the telescope.

Tests for constituency

Substitution test:

Word sequences that can be systematically substituted for a single word (e.g., proper name or personal pronoun) form a constituent:

The student gave Mary a book.

The friendly student gave Mary a book.

The friendly student which I told you about yesterday gave Mary a book.

Tests for constituency

Substitution test:

Word sequences that can be systematically substituted for a single word (e.g., proper name or personal pronoun) form a constituent:

Mary gave John a book.

Mary gave the student a book.

Mary gave the friendly student which I told you about yesterday a book.

Tests for constituency

Substitution test:

Word sequences that can be systematically substituted for a single word (e.g., proper name or personal pronoun) form a constituent:

Compare with:

- Yesterday John gave Mary a book.
- Mary gave yesterday John a book.

Syntactic Categories

Constituents that are **substitutable** for each other can be subdivided into larger classes that share distribution and structural properties,

i.e. the **Syntactic Categories**, e.g.:

Noun phrases, consisting of a pronoun, a proper name, or a complex structure with a common noun as syntactic head element – **NP**

Prepositional phrases (with the telescope, into the garden) – **PP**

Adjective phrases (friendly, very friendly, interested in linguistics) – **AP (!?)**

Categories and Functions

Syntactic categories denote classes of constituents with similar internal structure, in particular, the category /part-of-speech of their lexical head.

Grammatical functions characterise the external role of a constituent in its syntactic context, e.g.

Complements:

Subject;

(Direct, indirect, prepositional) Object;

Modifier / Adjunct.

Categories and Functions

Chomsky has proposed two sets of Rules :

1. Phrase Structure Grammar :

these rules dictate the form of **the deep structure** .
If you have ever diagrammed sentences in English (or foreign language classes), than you have explicitly used phrase structure rules before.

Phrase Structure Grammar

Phrase structure rules principle specifies both the necessary *phrases for proper sentence construction*, and the *specific word ordering* that should be followed within these sentence phrases.

Phrase Structure Grammar forces a hierarchical arrangement among different parts of sentences.

Phrase Structure Grammar

Why can't we just use phrase structure rules to explain language ?

Phrase Structure Rules can not help distinguish among **ambiguous sentences** :

- Visiting relatives can be a nuisance.
- The shooting of the hunters was horrible.

Phrase Structure Rules

We can simply treat tree diagram as a *static representation* of the structure of the sentence at the bottom of the diagram.

The alternative view is to treat the diagram as a dynamic format, in the sense that it represents a way of “generating” not only that sentence but a very large number of sentences with only a small number of rules. These are called “phrase structure rules” .

Constituent Analysis

The constituent analysis technique employed in this approach is designed to show how small constituents (or components) in sentences go together to form larger constituents. One basic step is determining how words go together to form phrases. In the following sentence, we can identify nine constituents at the word level: *An old man brought a shotgun to the wedding.*

Constituent Analysis

One basic step is determining how words go together to form phrases. In the following sentence, we can identify nine constituents at the word level:

An old man brought a shotgun to the

An	old	man	brought	a	shotgun	to	the	wedding

Constituent Analysis

One advantage of this type of analysis is that it shows rather clearly that proper nouns or names (Gwen, Kingston) and pronouns (I, him, her), though they are single words, can be used as noun phrases and fill the same constituent space as longer phrases (e.g. an old man) *wedding*.

Constituent Analysis

Using this kind of diagram we can determine **the types of forms** that can be substituted for each other at different levels of constituent structure.

An	old	man	brought	a	shotgun		to	the	wedding
The	woman		kept	a	large	snake	in	a	cage
Gwen			took	Kingston			with	her	
I			saw	him			recently		

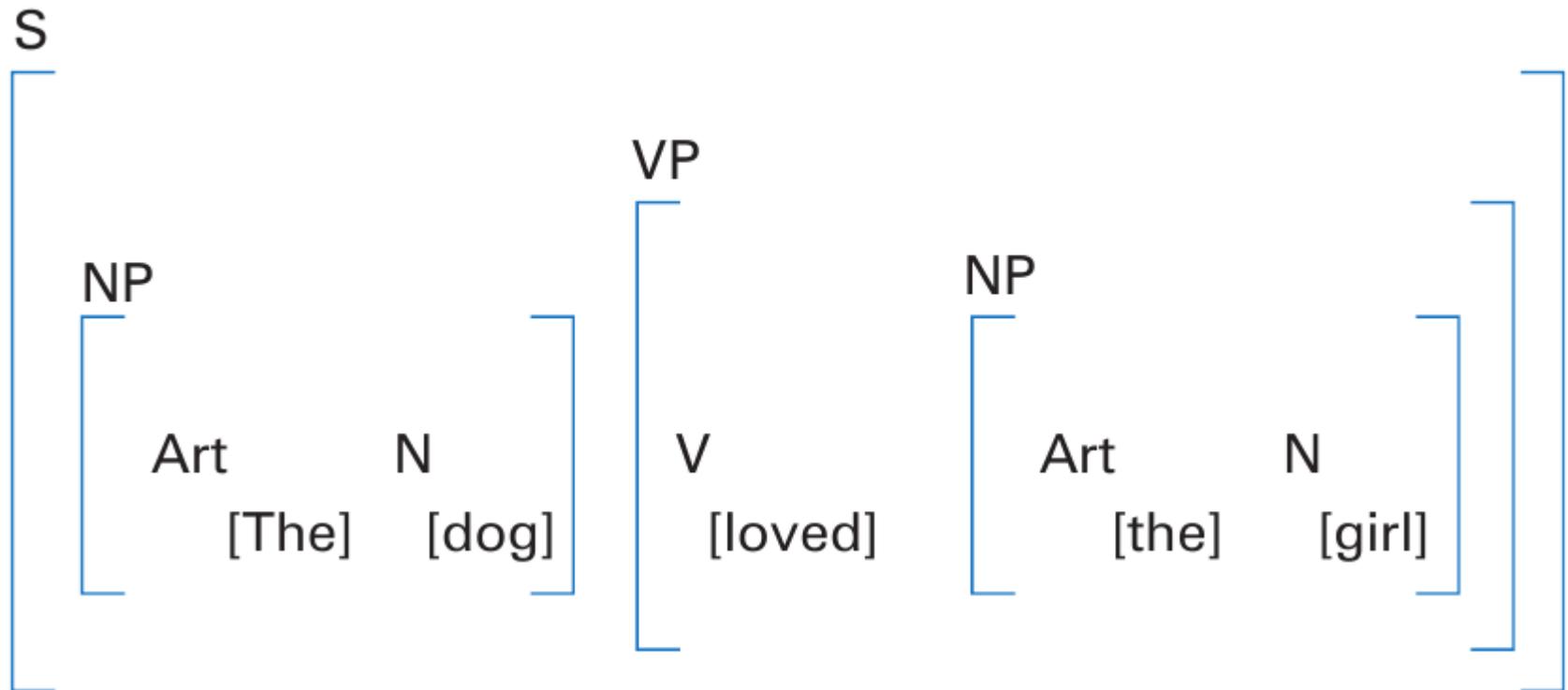
Labeled and bracketed sentences diagrams

An alternative type of diagram is designed to show how the constituents in sentence structure can be marked off by using labeled brackets. For example:



Labeled and bracketed sentences diagrams

Here below is a labeled and bracketed analysis of the constituent structure of the sentence.



A Task

Create a labeled and bracketed analysis of this sentence:

The thief stole a wallet.

Labeled and bracketed sentences diagrams

In performing this type of analysis, we have not only labeled all the constituents, we have revealed the hierarchical organization of those constituents. In this hierarchy, the sentence (**S**) is higher than and contains the noun phrase (**NP**).

The noun phrase (**NP**) is higher than and contains the noun (**N**).

We can also see that the sentence (**S**) contains a verb phrase (**VP**) which contains a verb (**V**) and another noun phrase (**NP**).

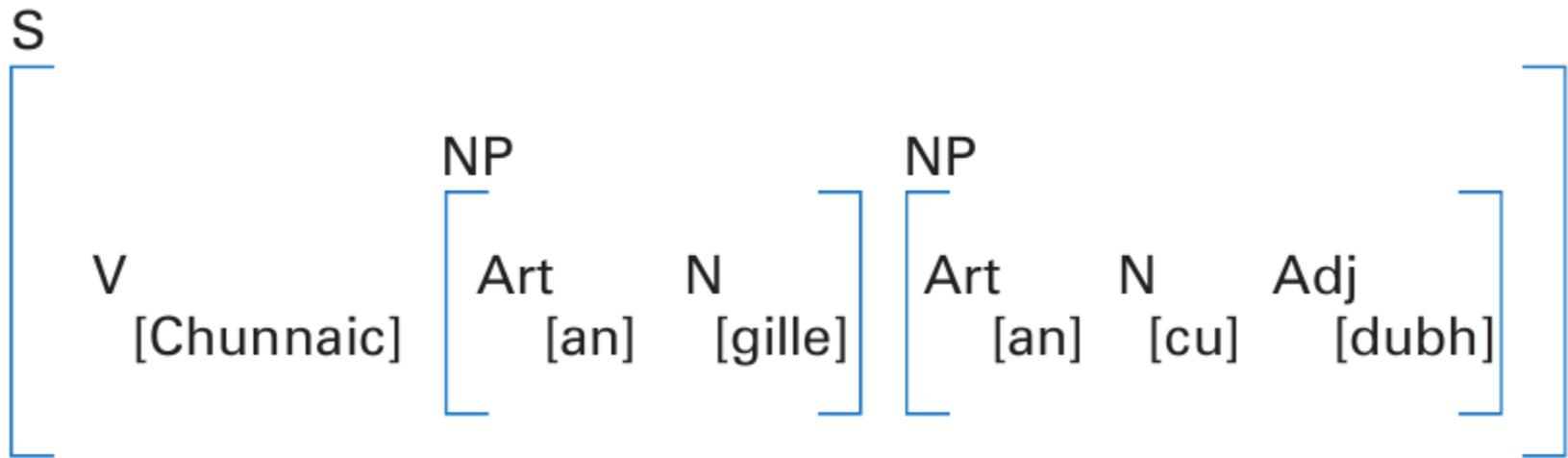
A Gaelic ['geɪlɪk] sentence

Chunnaic an gille an cu dubh
saw the boy the dog black

A Gaelic ['geɪlɪk] sentence

We can represent these structural observations in a labeled and bracketed diagram.

A Gaelic ['geɪlɪk] sentence



The diagram makes it clear that this Gaelic sentence is organized with a **V NP NP** structure, which is rather different from the **NP V NP** structure we found in the English sentence.

A Task

Given these other Gaelic words,
translate the following sentences into English.
mor (“big”) beag (“small”) bhuail (“hit”) duine (“man”)

- (i) Bhuail an gille beag an cu dubh.
- (ii) Chunnaic an cu an duine mor.

Labeled and bracketed sentences diagrams

The aim is to *make explicit, via the diagram*, what we believe to be the structure of grammatical sentences in the language.

It also enables us to describe clearly how English sentences are put together as combinations of phrases which, in turn, are combinations of words.

Labeled and bracketed sentences diagrams justification

At a very practical level, it may help us understand why a Spanish learner of English produces phrases like *the wine red (instead of the red wine), using a structural organization of constituents that is possible in Spanish, but not in English.

Transformational Rules

a- George helped Mary yesterday.

b- Yesterday George helped Mary.

Phrase structure rules will generate all sentences with fixed word order to the constituents. So sentence “a” will be defined by phrase structure rules easily while sentence “b” will not. Here we have to transform some of the elements.

SYNTAX ['sɪntæks]

This type of grammar should also be capable of revealing the basis of two miraculous [mɪ'rækjʊləs] phenomena:

- I. first, how some superficially different sentences are closely related and,
- II. second, how some superficially similar sentences are in fact different.
 - *That's funny what you say! ...*
 - *It isn't funny what you say! ...*

SEMANTIC FEATURES

e.g. *The hamburger ate the man.*

This sentence is syntactically perfect :

S => NP + VP (V + NP)

But the meaning is not acceptable.

The verb and the subject do not relate each other.

We identify the meaning by analyzing **some features**.

Structural analysis

One type of descriptive approach is called structural analysis and its main concern is to investigate the distribution of forms in a language. The method involves the use of “test-frames” that can be sentences with empty slots in them. For example:

The _____ makes a lot of noise.

I heard a _____ yesterday.

Structural analysis

The _____ makes a lot of noise.
I heard a _____ yesterday.

Here many words can fit the first one (e.g. car, child, donkey, dog, radio). As a result, we can propose that because all these forms fit in the same test-frame, they are likely to be examples of the same grammatical category. The label we give to this grammatical category is, of course, “noun”.

Structural analysis

For other words and word forms (like ‘Cathy’ or ‘the (two) dogs’), we may require different test-frames, which could look like this:

c) _____ makes a lot of noise.

d) I heard _____ yesterday.

Among the other forms that comfortably fit these test-frames are “it, the big dog, an old car, Ani Difranco, the professor with the Scottish accent”, and many more.

Structural analysis

c) _____ makes a lot of noise.

d) I heard _____ yesterday.

Among the other forms that comfortably fit these test-frames are “it, the big dog, an old car, Ani Difranco, the professor with the Scottish accent”, and many more. These forms are likely to be examples of the same grammatical category. The common label for this category is “noun phrase.”

Structural analysis

We can now see that it is more accurate to say that **pronouns** are used in place of **noun phrases (not just nouns)**. By developing a set of test-frames of this type and discovering which forms fit the slots in the test-frames, we can produce a description of (at least some) aspects of the sentence structures of a language.

Deep and Surface Structures

- 1) *Charlie broke the window.*
- 2) *The window was broken by Charlie.*

Their syntactic forms are different.

One is an active sentence, the other is a passive one. So it can be said that they differ in “**surface structure**”, however, their deep structures are identical.

Deep and Surface Structures

- 1) *Charlie broke the window.*
- 2) *The window was broken by Charlie.*

They carry the same meaning .

The **deep structure** is an abstract level of structural organisation in which all the elements determining structural interpretation are represented.

Structural Ambiguity

[,æmbɪ'gju:ɪtɪ]

Annie wrecked a man with an umbrella.

This sentence is structurally ambiguous [æm'bigjuəs] since it has two underlying interpretations which would be represented differently in the deep structure.

Different Approaches

There continue to be many different approaches among those who claim to analyze language in terms of generative grammar, and many more among those who are critical of the whole system.

Tree Diagrams

There continue to be many different approaches among those who claim to analyze language in terms of generative grammar, and many more among those who are critical of the whole system.

The commutation test

THE COMMUNICATION TEST

commutation [ˌkɒmjʊ'teɪʃ(ə)n]

Origin: late Middle English (in the sense 'exchange, barter', later 'alteration')

Origin: from Latin commutatio(n-), from commutare 'exchange, interchange' (see commute).

Sense 1 dates from the late 16th cent

The commutation test

Commutation test – the procedure of substituting a sound for another sound in the same phonetic environment with the aim of establishing the phonemic system of a language ???

The commutation test

This test is a metalingual subjective system for analysing textual or other material.

It has evolved from a limited method for investigating the structure of individual signs (per Roman Jakobson).

Its primary uses are to:

- A. identify distinctive signifiers,
- B. define their significance, and
- C. divide material into paradigmatic classes and
- D. identify the codes to which the signifiers belong (Roland Barthes).

The commutation test

According to Daniel Chandler, the commutation test may involve any of **four basic transformations** which, to a greater or lesser extent, involve **modification of the syntagm**:

Paradigmatic transformations

Substitution: Jenny loves Johnny; Mary loves Johnny;

Transposition: Jenny loves Tom. Tom loves Jenny;

Syntagmatic transformations

Addition:

This is the cat that killed the rat

That ate the malt that lay in the house that Jack built;

Deletion: This is the house that Jack built.

The infinity of Syntax

“New rules will allow the collection of DNA from most people arrested or detained by federal authorities.” (Hits in Google)

“New rules will allow the collection of DNA” 0

“New rules will allow the collection of”

“New rules will allow the collection” 0

“New rules will allow the”

“New rules will allow” ,600

“New rules will” ,000

“New rules” ,650,000

“New” ,190,000,000

Every sentence you hear is new!

The infinity of Syntax

... wedded to Henry **VIII** between 1509 and his death in 1547.

Catherine of Aragon

Anne Boleyn

Jane Seymour

Anne of Cleves

Catherine Howard

Catherine Parr

Right or wrong?

The infinity of Syntax

... wedded to Henry **VIII** between 1509 and his death in 1547.

Catherine of Aragon
Anne Boleyn
Jane Seymour
Anne of Cleves
Catherine Howard
Catherine Parr

Wrong is right!

The infinity of Syntax

... was beheaded by order of Henry **VIII**.

Catherine of Aragon

Anne Boleyn

Jane Seymour

Anne of Cleves

Catherine Howard

Catherine Parr

Wrong is right!

The infinity of Syntax

... was beheaded by order of Henry **VIII**.

Catherine of Aragon

Anne Boleyn

Jane Seymour

Anne of Cleves

Catherine Howard

Catherine Parr

Wrong is right!

The infinity of Syntax

... was the one who survived Henry VIII death.

Catherine of Aragon

Jane Seymour

Anne of Cleves

Catherine Parr

Wrong is right!

The infinity of Syntax

... gave Henry VIII one child who ascended the throne.

Catherine of Aragon
Anne Boleyn
Jane Seymour
Anne of Cleves
Catherine Howard
Catherine Parr

Wrong is right!

The infinity of Syntax

... gave Henry VIII one child who ascended the throne.

Catherine of Aragon

Anne Boleyn

Jane Seymour

Anne of Cleves

Catherine Howard

Catherine Parr

Wrong is right!

The infinity of Syntax

Catharine of Aragon, Anne Boleyn, and Jane Seymour each gave him one child who survived infancy: two daughters and one son. All three of these children eventually ascended to the throne.

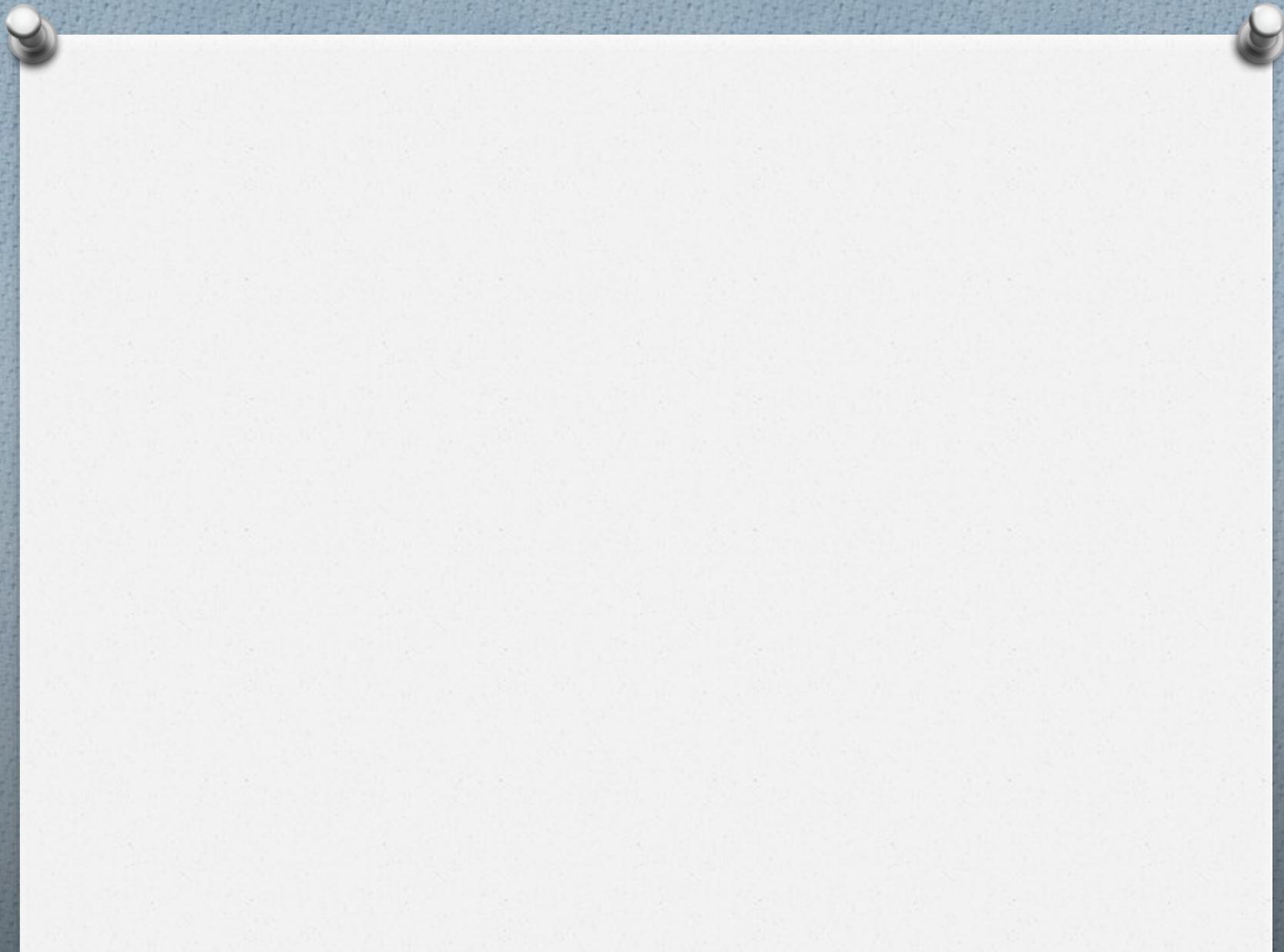
Wrong is right!

The infinity of Syntax

... wedded to Henry **VIII** between 1509 and his death in 1547.

King Henry VIII,
To six wives he was wedded.
One died, one survived,
Two divorced, two beheaded.

Wrong is right!



SEMANTIC ROLES

Constituents perform functions in sentences.

And we can associate constituents of sentences with certain semantic roles.

SEMANTIC ROLES

John beats his wife almost every day, when not too far away.

Bill cheats John, doesn't he?

John is cheated by Bill, isn't he?

Semantic Roles:

Agent, Theme, Instrument

Mary wrote the letter with my pen.

a- Agent : The entity that performs the action (**Mary**) .

b- Theme : The entity that is involved in or affected by the action (**the letter**) .

c- Instrument : The entity that is used by the agent to perform the action (**my pen**) .

What about the Action? ???

Semantic Roles:

Experiences , Location, Source, Goal

a- Experiences : When a noun phrase (as the person) performs an action including a feeling, a perception do not actually perform the action, it happen by itself and you feel it.

e.g *Mary saw a mosquito on the wall. saw => experiences*

Mary cooked the meal last night. cooked => agent

b- Location : The direction or the place of an entity.

e.g. *Mary saw a mosquito on the wall. => on the wall*

c- Source is where an entity moves from and Goal is where an entity moves to .

e.g *Sally borrowed some Money from Tom bought a birthday present and gave it to Sam.*

Tom => source

Sam => goal

Sample examination questions

1. Analyse the sentences below in terms of phrase structure:

a. The green box fell on the red table.

b. The children danced very well.

c. I saw the man with the glasses.

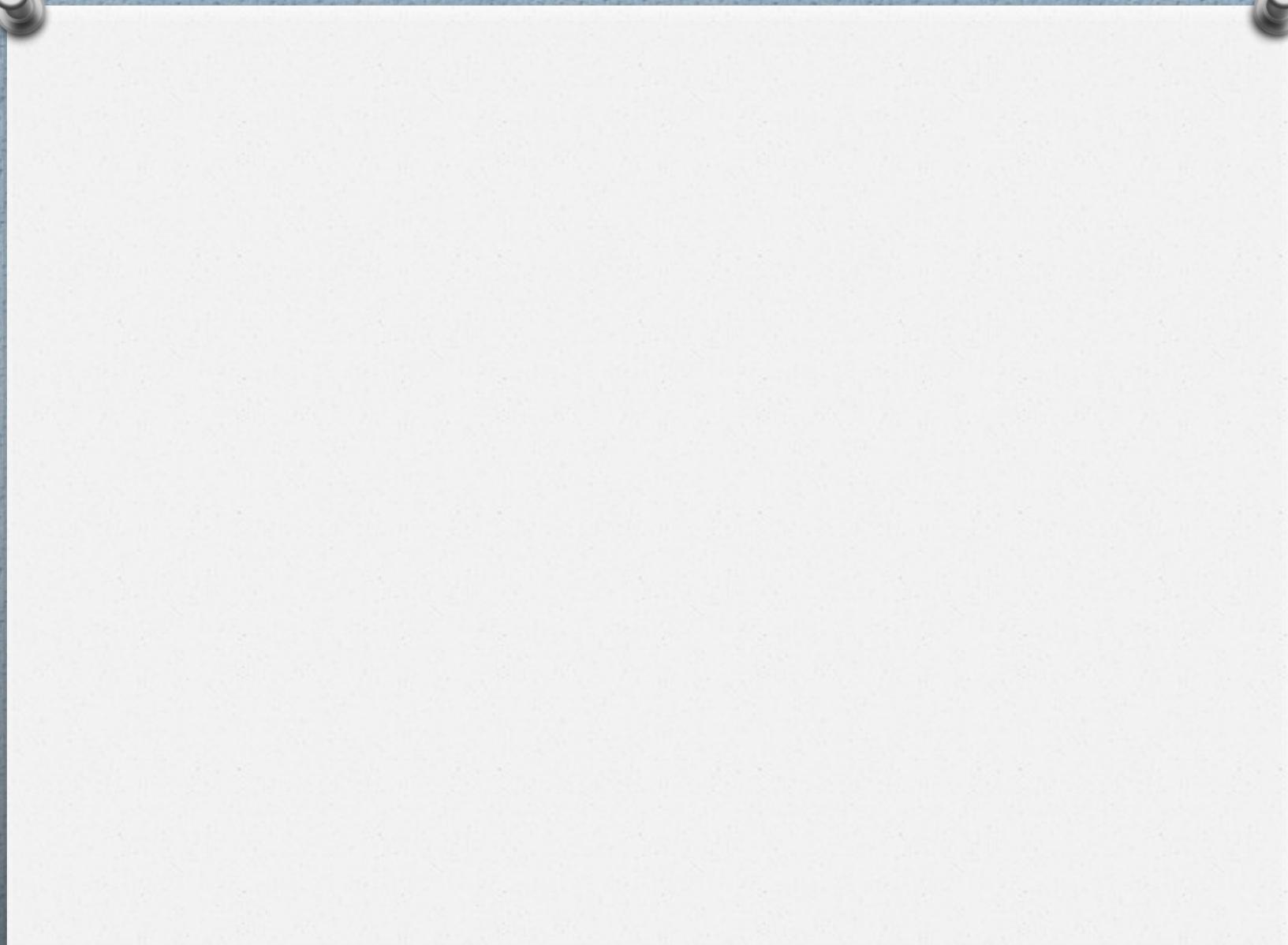
Explain how you reached your analysis. Comment on any problematic points in the analysis.

2. Discuss the distinction between modifiers and complements. Use appropriate English examples in your answer.

Learning outcomes of the Unit

you should be able to:

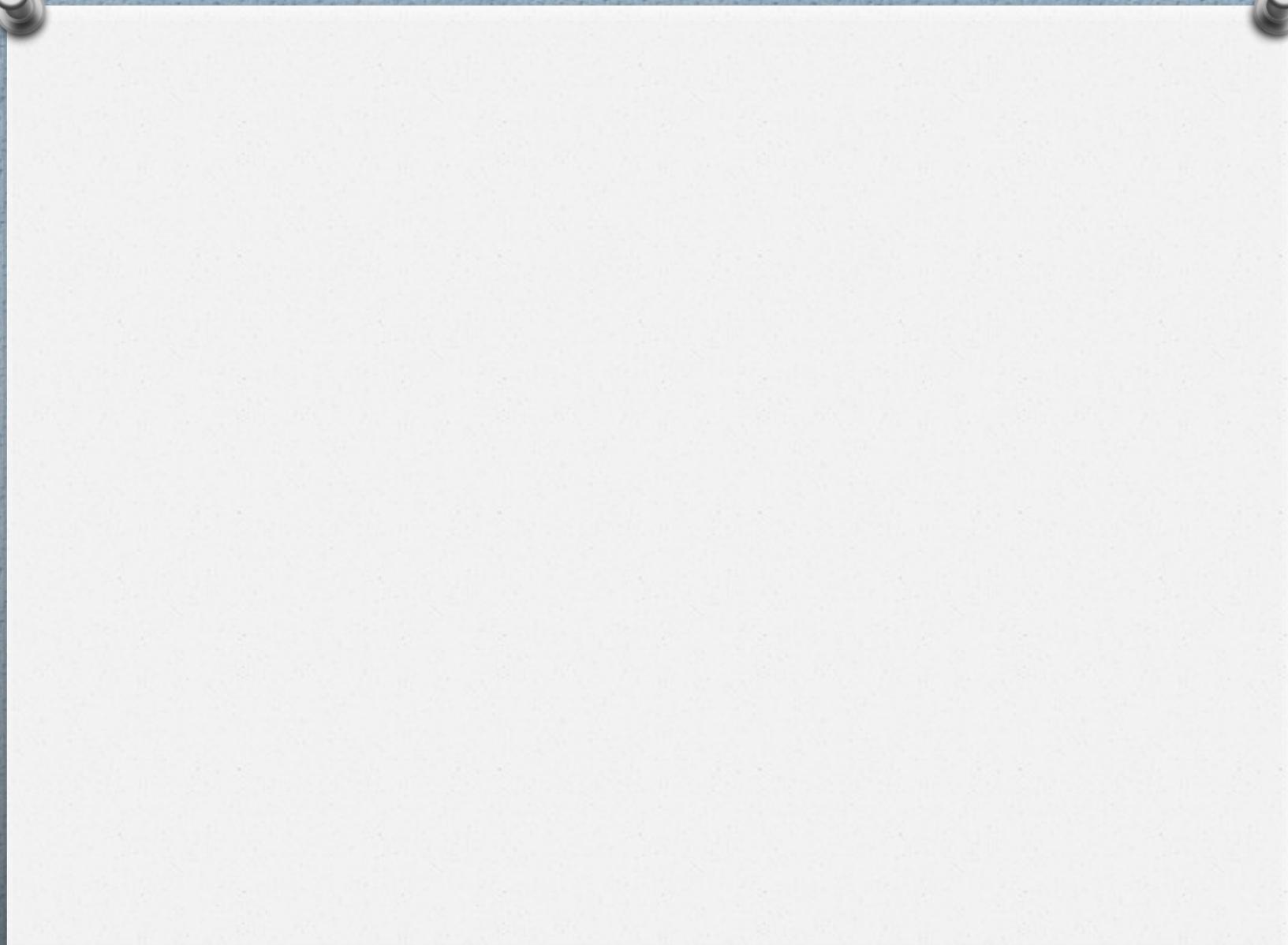
- ❑ demonstrate an understanding of the aims and purposes of the study of syntax in contemporary linguistics;
- ❑ discuss the structure of sentences in terms that are valid in modern linguistics and support your analyses with valid syntactic argumentation
- ❑ demonstrate skills of sentence analysis in terms of phrases, syntactic functions, and semantic roles,
- ❑ present arguments to support your analyses and explain any problematic points in the analysis
- ❑ demonstrate a good working knowledge of the structure of a range of phrases of English (NP, VP, PP) and be able to draw phrase structure trees to reflect these phrases.



A sentence or an utterance?

An utterance is created by speaking (or writing) a piece of language.

Sentences, on the other hand, are abstract grammatical elements obtained from utterances. Sentences are abstract because if a third and fourth person in the room also say Ontogeny recapitulates phylogeny with the same intonation, we will want to say that we have met four utterances of the same sentence. In other words, **sentences are abstracted, or generalized, from actual language use.**



**THE
FOURTH
TERM**

**THE SYLLABUS OF THE COURSE
PART TWO**

Lecture 10-11	The grammar of sentences	4hrs	Sentence structure: constituency tests, phrases, different approaches to language analysis (theoretical grammars; descriptive grammars; systemic-functional grammar)
Lecture 12-13	The meaning of words	4hrs	Approaches to word meaning (sense and reference, prototype theory, componential analysis), lexical relations;
Lecture 14-15	The meaning of sentences	4hrs	Sentence meaning: truth-conditional semantics, structural ambiguity;
Lecture 16-17	Pragmatics and discourse	4hrs	Language use in context: pragmatics, Speech Act Theory, Grice's Maxims, politeness theory;
Lecture 18	Revision	2hrs	Preparation for Exam and complex linguistic issues discussion