

**UNIVERSITA' DEGLI STUDI DI PADOVA**

**FACOLTA' DI LETTERE E FILOSOFIA**

**DIPARTIMENTO DI DISCIPLINE LINGUISTICHE, COMUNICATIVE E  
DELLO SPETTACOLO**

**TESI DI LAUREA IN LINGUE E LETTERATURE STRANIERE MODERNE**

**SYNTACTIC THEORY AND EXPLICIT GRAMMAR  
IN THE TEACHING OF ENGLISH INTERROGATIVES**

***Relatrice:* Prof.ssa PAOLA BENINCA'**

***Laureanda:* VALENTE RACHELE**

***Matr.* 375516-LL**

**ANNO ACCADEMICO 1999-2000**

## CONTENTS

<b>ABBREVIATIONS .....</b>	<b>5</b>
<b>INTRODUCTION .....</b>	<b>7</b>
<b>I. A SKETCH OF THE THEORETICAL FRAMEWORK .....</b>	<b>17</b>
<b>1. Generative grammar: an outline .....</b>	<b>17</b>
1.1 Introduction .....	17
1.2 The Structure Dependence Principle .....	20
1.3 The Projection Principle .....	22
1.4 Theta Theory .....	24
1.5 The Extended Projection Principle .....	27
1.6 Case Theory .....	28
1.7 Subjacency .....	34
<b>2. Types of movement .....</b>	<b>38</b>
2.1 Introduction .....	38
2.2 V-movement .....	39
2.3 Wh-movement .....	46
<b>3. Binding Theory and wh-traces .....</b>	<b>55</b>
<b>4. Movement and chains .....</b>	<b>56</b>

<b>II. INTRODUCTION TO THE EXPERIMENT AND</b>	
<b>SIMPLIFICATION OF THE THEORY .....</b>	<b>59</b>
<b>1. Description of the experiment .....</b>	<b>59</b>
1. 1. Definition of each type of interrogative sentences	
and derivation of the simplified scheme from the	
standard tree structure .....	64
<b>CONTENT QUESTIONS</b>	
1. 1. 1 Direct questions on the complement .....	66
1. 1. 2 Indirect questions on the complement .....	67
1. 1. 3 Long movement of a wh-element on	
the complement .....	69
1. 1. 4 Direct questions on the subject .....	71
1. 1. 5 Indirect questions on the subject .....	72
1. 1. 6 Long movement of a wh-element on	
the subject .....	74
<b>POLAR QUESTIONS</b>	
1. 1. 7 Direct questions .....	76
1. 1. 8 Indirect questions .....	77
1. 1. 9 Movement of the empty operator .....	78
2. 3 <sup>rd</sup> B and 4 <sup>th</sup> C test .....	82
<b>III. THE EXPERIMENT .....</b>	<b>85</b>
1 First class .....	85

2	Second class .....	88
3	Third class .....	100
4	Fourth class .....	105
5	Fifth class .....	108
6	Sixth class (test) .....	109
IV. TEST ANALYSIS .....		113
1.	Introduction .....	113
2.	3 <sup>rd</sup> B and 4 <sup>th</sup> C test analysis – Traditional method .....	114
3.	2 <sup>nd</sup> B test analysis – Theory-based method .....	129
CONCLUSION .....		133

#### INDEX OF THE FIGURES

Fig. 1 .....	36
Fig. 2 .....	40
Fig. 3 .....	41
Fig. 4 .....	42
Fig. 5 .....	43
Fig. 6 .....	45
Fig. 7 .....	46
Fig. 8 .....	51
Fig. 9 .....	52

<b>Fig. 10 .....</b>	<b>61</b>
<b>Fig. 11 .....</b>	<b>65</b>
<b>Fig. 12 .....</b>	<b>68</b>
<b>Fig. 13 .....</b>	<b>70</b>
<b>Fig. 14 .....</b>	<b>71</b>
<b>Fig. 15 .....</b>	<b>73</b>
<b>Fig. 16 .....</b>	<b>74</b>
<b>Fig. 17 .....</b>	<b>76</b>
<b>Fig. 18 .....</b>	<b>77</b>
<b>Fig. 19 .....</b>	<b>79</b>

<b>BIBLIOGRAPHY .....</b>	<b>139</b>
---------------------------	------------

## ABBREVIATIONS

$\alpha$	alpha (=syntactic category)
$\theta$	theta (=thematic)
A-position	argument position
A'-position	non argument position
C	complementizer
CP	complementizer phrase
CR	Consciousness Raising
D-structure	deep-structure
e	empty category
GB	Government and Binding
I/INFL.	inflection
L1	first language
L2	second language
LAD	Language Acquisition Device
LF	logical form
N	noun
NP	noun phrase
P	preposition
PF	phonetic form
PP	prepositional phrase
pro	null subject (in Italian)
Spec.	specifier

S-structure	surface-structure
t	trace
UG	Universal Grammar
V	verb
VP	verb phrase
w. s.	wrong sentences
*x	x is ungrammatical
XP	X phrase (=phrase of any category)

In the experiment (chapter III):

A.	Agreement
t	trace of the inflectional elements of the verb
T.	Tense
X	trace of subject
Y	trace of complement

## INTRODUCTION

The debate on whether the teaching of a language must be based on teaching as interaction or on teaching as instruction has not reached a conclusion yet, and the discussion on the definition of the role of grammatical reflection in language learning is still open. The human ability to learn one or more languages in the early years of our life makes us think that a genetic endowment exists. Chomsky (1968), postulates that an innate mechanism, the Language Acquisition Device (LAD), allows us to build rapidly a grammar of our mother tongue. It consists of a set of principles, some of which are parameterized, that is, exhibits certain limited choices which define the dimensions of the variation permitted across natural languages.

We know that we cannot learn even our mother tongue without interacting with other people speaking it. The mechanism of linguistic acquisition is started in the child through the communicative relation which he or she establishes with the adults taking care of him/her and thus carry out a major role in the process of language learning in children. Experience “in part a construct based on the internal state given or already attained serves to fix the values of the parameters in accord with the particular language being learned” (Chomsky, 1981).

In short, “Universal Grammar consists of a highly structured and restrictive system of principles with certain open parameters, to be fixed by experience. As those parameters are fixed, a grammar is determined” (Chomsky, 1981).



We can say, with Flynn (1991), that parameters mediate between experience and grammar, and that principles determine what is given and parameters determine what must be learnt: setting the values of the parameters in one way or another will have deductive consequences for the rest of the grammar.

Furthermore, Chomsky, in many of his works, distinguishes between competence and performance; the acquisition of a language involves more than the acquisition of rules for the production of utterances: part of our linguistic knowledge is not acquired, is innate. It is this type of knowledge, and not the behaviour of the learners which is the goal of linguistic theoretical studies. A competence-based approach to cognition claims that underlying all cognitive activity is a more perfect system than that displayed by the record of behaviour itself, and that this system can be adequately characterized by a set of formal logical rules.

But, does UG provide a proper model for second learning acquisition (SLA), too? Is this faculty involved in primary acquisition available also in the acquisition of the second language (L2) grammars of adult learners?

If we need a scientific description of linguistic competence, then the claim is that a generative theory of grammar is a necessary component of a theory of second language acquisition. First of all, it adds rigor to the SLA theory. Generative grammar is a formal theory, and its formality is one of its main strengths. A formal description involves that a set of precise rules generates an infinite number of

correct sentences, adapted to the syntactic context, i. e. it is a generative description.

Gregg (1989) argues that given this kind of information, we are in a position to make fairly precise predictions about SLA where the second language in some respects differs from, or is the same as, the native language of the learner. By ignoring function and by calling upon a theory capable of making precise detailed, structural descriptions, we can find a possible explanation for phenomena that cannot be described in functional or typological terms. A SLA theory does not want simply rigor, but also explanatory power, and it is just that ability to appeal to a related, well developed theory that allows us to explain phenomena in the domain of SLA. UG, or the set of formal constraints upon the ways in which a first language may be presumed to develop, is a biological endowment of our species. And there is as yet no reasons to suppose that these constraints are not still in operation, at least in part, in adulthood, or for the acquisition of subsequent languages (see also Gentile, 1995).

Much recent work in SLA research has centred on the possibility of a critical period for language acquisition, which lasts only until puberty (Lennenberg, 1967), or even earlier (Krashen, 1973).

Klein (1993) states that if UG is available to guide learning only during this period, then adult second language learners are not guided by universal principles and parameters as are children learning a first language; on the contrary, if adult second language learners have access to UG, acquisition would proceed in a similar manner as in children.

Many researchers in second language acquisition have been testing a principles and parameters model of acquisition for adult learners, that is they are seeking to determine whether UG is also responsible for the acquisition of second language grammars.

We will assume as valid the hypothesis that certain principles of UG, as for structure dependence, remain constant for all language learners and that they need not to be further considered for any active role in the delineation of second language teaching. As we have seen before, those principles are universal conditions and constraints on syntactic well-formedness that are presumed to hold for all languages. The other aspect of these principles is to be found in the parameters, the nature of whose application may vary across languages.

According to the opinion of Schachter (1989), in the case of postpuberty second language learning there are currently three positions on the question of the reactivation of the language faculty.

A) The first position claims that the adult learns the L2 exactly as the child does the L1, that is the L2 learner still has direct access to UG and starts with the parameter set at the initial value. The learner's L1 will have no serious effects on the process itself or on the hypotheses the learner is capable of constructing or does construct (Krashen, 1981 and 1985).

B) The second position also assumes that UG can be and is reactivated. It claims that L2 learners approach the L2 by way of the L1, i. e. transferring L1 structures to the L2, unless positive evidence from the input indicates otherwise. In this view,

language transfer errors arise because the L2 learner assumes the L1 parameter setting still holds; in cases in which the appropriate setting for the second language is less marked, transfer errors may occur (Flynn 1983; White 1985; Schachter 1989 and others).

- C) The third position constitutes a direct challenge to the notion that UG in its entirety is available to the language learner after the critical period for first language acquisition. Its advocates propose that an individual retains only that portion of UG that is instantiated in the individual's first language and that access to those principles defining possible rule systems may no longer be available, nor may the other possible parameter settings instantiated in the first language. According to this view, the adult second language learner would have available for the acquisition of the target language only the principles and the parameter setting instantiated in the first language (Bley-Vroman, 1989).

The present work will follow the intermediate position B.

White (1985) and others (ex. Liceras, 1986) have argued for L1 influence in a manner that suggests that UG is still active in L2 acquisition, but its operation is constrained by certain instantiations of UG in L1 carried over to L2. Flynn (1991), too, indicates that the L1 experience plays some role in the L2 acquisition process and it seems demonstrated by the fact that different language groups learning a common L2 may differ from each other in fundamental ways.

Sharwood Smith (1994) divides the parameter-resetting in three developmental phases:

PHASE 1: Initial application of any L1 instantiation of those UG parameters that are perceived to be relevant.

PHASE 2: Recreative application of UG in areas where L1 provides no basis for hypotheses about L2 structure.

PHASE 3: Reorganization, revising the effects of phase 1 → where the evidence demands it, resetting UG parameters.

‘Relevant’ simply means ‘as indicated by the perceived input’. L2 evidence will make it clear if some principles are relevant for the SLA: in this case, the learner will process them according to the recreative view.

When two languages L1 and L2 apply the same parameter, a L1 learner of L2, and vice versa, does not need to reset that specific parameter, and thus we would hold that the parameter should not play an active role in language teaching. On the contrary, some parameters vary with relation to specific languages and so they need to be considered for purposes of linguistic pedagogy (Rutherford, 1988).

This newly emergent importance of contrastive linguistics derives in large part from the current version of linguistic theory that makes possible to compare languages not in terms of the operation of specific transformational rules, but rather in terms of the new differential application across all languages of a relatively small set of universal principles.

This thesis intends to explore the educational potentiality of the principles and parameters of UG, in particular of the parameter-resetting model applied to language learning and teaching in the classroom, that is within an institutional framework and not in a natural context.

Its leading idea is to test in a class of an Italian secondary school the effects of an explicit grammatical exposition made according to a simplified version of the constituent analysis proposed by generativists.

The test has been carried out on the teaching and learning of English interrogative structures; the aim of the experiment was to observe if this kind of grammatical analysis can help the students to deal with these structures. On the one hand, they have to recognize that the syntax of the two languages is similar, on the other hand, they have to reset the parameters that are responsible of the differences between them: in fact, it seems that the traditional method does not approach in an effective way those areas of the syntax which are different in the two languages.

Nowadays, the main part of the teachers and researchers agree in recognizing to the teaching of some regularities present in the language an important role.

The tendency of the last few years is a rediscovery of the value of an active reflection on language and of the linguistic consciousness raising (CR), which influences in a positive way the disposition on learning in general and thus the language abilities (Ritchie 1978; White 1983; Gass 1984 and others).

Rutherford (1988) defines CR as ‘the deliberate attempt to draw the learner’s attention specifically to the formal properties of the target language’. In particular, he wants to question the current assumption that formal grammar has a minimal or even nonexistent role to play in language pedagogy, and that theoretical linguistics has virtually nothing to contribute to what goes on in the classroom.

To say that linguistics is only the study of language structures reveals a lack in the definition of the goals one wishes to attain through such study; and for linguistics that goal is an understanding of the workings of human mind, i. e. it is a cognitive science.

The proper ultimate goal of linguistics is the development of theories by which phenomena may be explained. In this light, then, the descriptive goals of theoretical linguistics can contribute to practise, in this case language pedagogy.

Following this line (from theory to practise), in the first part of the thesis I will try to give a survey of the theoretical principles outlined by the generative grammar, in which the attention is particularly focused on those aspects of linguistic theory that affects wh-movement and V-movement, i. e. the two types of movements involved in question formation. Then, I will try to render the theory available to students of fifteen through a process of simplification which maintains intact the nature and the meaning of the principles in question, but gives an easier definition of them.

In the second part, I will describe the teaching experience in the classroom, the final test and the conclusions on how this method works

with respect to the traditional method through a compared analysis of the errors.

As we will see, the results of the experiment have been satisfactory and encouraging. First of all, the students accepted the new type of grammatical presentation. I gave them the whole picture of the interrogative structures required by the school programmes, main and subordinate clauses, in the way generative theory suggests: from the structure of the 'normal' sentence to the structure of the interrogative sentence through the processes of movement.

The students who paid attention in class and studied at home produced perfect tests. The percentage of perfect tests was relevant indeed: eight students in a class of nineteen.

This work describes just a first attempt to make experiences of this kind: we have to bear in mind that it has been an isolated parenthesis within a method which works in a completely different way.

Probably, if it had been inserted in a more homogeneous context it would have given even better results.





# **I. A SKETCH OF THE THEORETICAL FRAMEWORK**

## **1. Generative grammar: an outline**

### **1.1 Introduction**

The theory of syntax that has been the framework of the research of the last twenty years stems from the version of the generative theory presented by Noam Chomsky in his work “Lectures on Government and Binding” (1981). The theory itself is usually referred to as GB theory.

GB theory reformulates the theory of syntax examining in a formal way the consequences of structural relations of Government and the possibilities for categories to be bound to empty positions. In Generative Grammar, language is conceived as a relationship between sounds and meanings: a sound is the physical form of spoken language, but it has not an inner meaning; the meaning is the mental representation and it is independent from its physical form, being the relation between sound and meaning arbitrary (the same animal is called *cane* in Italian, *dog* in English, *chien* in French, ...).

If language could be studied as a system of pure sound or pure meaning, its description would be quite simple. As in different words Saussure and others have said in the past, the difficulties arise from the complex links between these two entities. Thus, we need a system to describe the real sounds, that is phonetic representation; a system to describe the meanings, that is semantic representation; and a system to

describe the syntactic structure which links all these elements, that is syntactic representation.

GB theory includes a rather different kind of relationship: the link that exists between the phonetic form and the logical form of a sentence. The phonetic form (PF) realizes itself as sequences of sounds, the logical form (LF) is a representation of syntactic meanings reached through syntax. These two forms have a different nature, so we need two different components (PF and LF) linked by syntax.

The larger part of the GB theory concentrates on the syntactic component of the model, because syntax has overt phenomena and so the hypothesis on the way it works are testable. LF is assumed to obey the same constraints on movement and binding as syntax.

Syntax in GB theory is centred on the properties of movement; transformations are reduced to a unique rule “move  $\alpha$ ”, where  $\alpha$  stands for any type of constituent.

Movement is conceived as completely free in principle: every element of the sentence could be moved somewhere else. General constraints limit the effects of the general and free rule in question.

The Theory of Movement studies the restrictions that derive from general properties which human language as a cognitive system imposes on movement, so that only some elements can actually be moved, only some positions in the sentence function as possible landing sites and the distance between the extraction site and the landing site is limited in terms of structure. Some of these constraints concern all human languages, others undergo parametric variation.

The most important universal principles which limit the possibilities of movement are:

- the STRUCTURE DEPENDENCE PRINCIPLE
- the PROJECTION PRINCIPLE and the EXTENDED PROJECTION PRINCIPLE
- THETA THEORY
- CASE THEORY
- the SUBJACENCY CONDITION

They are testable through the ungrammaticality of the sentences produced by movement that violate them.

The starting point of movement is a basic structure corresponding-roughly-to an active affirmative sentence: if the Object is not a NP but a wh-element, we obtain the interrogative sentence (1b.) from (1a.) moving the interrogative object and the auxiliary to the left:

- (1) a. He has bought [a new car] this year. [WHAT]  
b. [What] has he bought this year?

To account for this kind of relationship, GB theory requires two levels of representation:

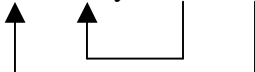
- 1) D-structure, which represents the basic argument relations in the sentence and where the constituents of the sentence stay in their original position; and
- 2) S-structure, where the constituents have been affected by movement transformations producing the actual ordering of the elements in the surface string.

S-structure is the link between sound and meaning and is in relation with D-structure through the processes of movement. Some elements that originate in some positions at D-structure are moved elsewhere at S-structure and leave traces in the extraction sites, which seem apparently empty.

In (2b.) the two traces *t* mark the places where the do-support and the object have moved from.

(2) a. You ate [an apple]. [WHAT]

b. What did you t eat t?



Thus, S-structure is not only the surface string phonetically realized, but is enriched by traces of movement which mark the original positions of the moved elements.

## 1. 2 The ‘Structure Dependence’ Principle

A first important restriction on movement derives from the universal principle of the

### *Structure Dependence*

Operations on linguistic elements (ex. movement) are free, provided that the basic information on the structure are preserved; this requires the knowledge of the structural correspondence between the linguistic categories and the syntactic structure of a sentence.

A first reflex of this principle is that we cannot move linguistic elements taking into account only the linear sequence of the elements in a string. On the contrary, the morphological category of a word and its relations with the other elements of a sentence allow us to work out general rules, which is the aim of linguistic studies. For example, when we form an interrogative sentence in English we have to move the auxiliary of the main sentence: we cannot identify the relevant word indicating it as ‘the first verb’ or the ‘x-word’.

- (3) a. You will leave soon.  
       b. Will you leave soon?  
       c. The people who are standing in this room will leave soon.  
       d. Will the people who are standing in this room leave soon?

If we have to derive the interrogative structure from (3a.), we have to move the second word, which corresponds in this case to the first auxiliary; whereas, if we have to derive the interrogative form from (3c.), we have to move the ninth word, which corresponds to the second auxiliary.

A more direct consequence of the principle is that we can only move XP constituents in positions of the same XP type, and x-elements in x-positions.

This is to say that the structure dependence principle reduces the element “ $\alpha$ ” to the class of the syntagmatic constituents. In

- (4) a. You are watching [an interesting film]. [WHAT]  
       b. [What] are you watching?

the scope of the WH-element includes the whole noun phrase, that is to say that the wh-element has been moved from the position of internal argument NP of the verb *watch*.

Two targets of movement are distinguished:

- 1) head-to-head movement, when we move the head of a projection to another head position; ex. verb-movement
- 2) the movement of a maximal projection, when a maximal projection has to reach a projection of the same type. XP must move to an XP; ex. wh-movement.

### 1.3 The Projection Principle

Lexical items, that are the minimal constituents of a sentence, play an important role in the syntactic representation. The lexical category of the head of a phrase (ex. N) determines the category of the phrase itself (ex. NP). Moreover the structure of the predicate will determine the minimal components of the sentence. The idea that lexical information to a large extent determines the syntactic structure is summed up in the

#### *Projection Principle*

Lexical information is syntactically represented.

The lexical entry of a head selects the categories with which it joins. In particular, verbs are classified as transitive, intransitive, reflexive,... according to the type of VP in which they typically occur. In the Chomskian tradition, the notions of transitive, intransitive, etc. are encoded in distributional frames.

(5) *meet*: verb [\_\_\_ NP]

The verb *meet* requires an NP-complement; its VP will contain an NP.

(5) shows in which syntactic frame the verb *meet* can and must be inserted. The frames that identify subcategories of verbs are called subcategorization frames and we say that *meet* selects an NP.

The property of assigning semantic roles has to do with the assignment of syntactic roles; it implies that a predicate can express the entities which take part in an event, attributing to them grammatical functions in terms of particular configurations in which the constituents of the sentence appear. The grammatical function of

- SUBJECT is assigned to the NP dominated by IP
- OBJECT is assigned to the NP governed by V
- OBJECT OF PREPOSITION is assigned to the NP immediately dominated by P'.

Grammatical functions are assigned at D-structure.

To exemplify a movement which links D-structure with S-structure, let us consider again the surface form of an interrogative sentence. At first sight, an interrogative sentence would seem ungrammatical according to the lexical entry of the verb, which requires an NP after the verb.

(6) *meet*: verb [\_\_\_ NP]

a. Who will you meet?

The Projection Principle requires the presence of an NP on every level of syntactic representation to satisfy the properties of the lexical entry. Interrogative forms are the result of a transformation of movement from



D-structure, in which the moved element is present in a different collocation, to S-structure.

(7) D-structure: You will meet who.

In (7), the lexical entry of *meet* is satisfied and the NP is in its right site. At S-structure it moves at the beginning of the sentence leaving a trace in its initial position.

(8) S-structure: Who will you *t* meet *t*?

*t* is the automatic consequence of the Projection Principle; it permits to interpret correctly *who* as the argument “object” required by the properties of the verb.

#### 1. 4 Theta theory

Every predicate has also its argument structure (i.e. it requires a specific number of arguments) that determines which elements of the sentences are obligatory. *Meet* is a verb with two arguments, one is the subject of the sentence and the other is a VP internal argument. The argument structure of the verb predicts the number of constituents needed from a semantic point of view, not their grammatical category. The lexical representation, that is the lexical entry of the verb, defines the type of constituents of the sentence which complete the representation of the event according to the meaning of the verb and its argument realization.

(9) *meet*: verb → arg.1    arg.2

NP       NP

- a. Bob met Jane.

Sometimes, some arguments may be left unexpressed or implicit. Even if the verb is the prototypical predicate, other lexical categories have an argument structure, i.e.: adjectives, nouns, prepositions.

The semantic relationship between verbs (or other predicates) and their arguments are referred to in terms of thematic-roles or theta( $\theta$ )-roles. We say that the verb *meet* takes two arguments to which it assigns a theta-role: it assigns the role AGENT to the Subject argument of the sentence and the role PATIENT to the Object argument. Theta-roles have not to be confused with the Grammatical Functions, for example the function of Subject and Object are different from the theta-roles of Agent and Patient respectively, even if they can overlap in certain cases.

- (10) a. Bob ate an apple.

- b. The apple was eaten by Bob.

In (10a.) the NP *Bob* is in the Subject position and is the Agent of *eat*, while the NP *an apple* is in the Object position and is the Patient of *eat*. In (10b.) the theta-roles remains the same, but now *the apple* is in Subject position and “Bob” is in the position of Object of Preposition.

The verb theta-marks its arguments. To be more precise, not all the verbs assign theta-roles: lexical verbs do that, auxiliaries do not. Predicates in general have a thematic structure. The component of the grammar that regulates the assignment of thematic-roles is called *Theta Theory*.

The most important theta-roles are:

- AGENT/ACTOR = the one who intentionally initiates the action expressed by the predicate.
- PATIENT = the person or thing undergoing the action expressed by the predicate.
- GOAL = the entity towards which the activity expressed by the predicate is directed.
- BENEFICIARY = the entity that benefits from the action expressed by the predicate.

The important point at issue is the existence of these elements and their integration with other aspects of the theory, while the precise definition of the other theta-roles represented by other types of arguments is more that part of the theory that approaches the interface between semantics and more detailed aspects of syntax.

Theta-roles can only be assigned to A-positions (= argument positions), which are, in fact, positions that can be possibly filled with the arguments required by the lexical entry of the head. The grammatical functions of Subject, Object and Object of Preposition are A-positions.

There are positions to which theta-roles are assigned that are theta-marked and there are A-positions to which theta-roles have not been assigned that are not theta-marked. All the theta-roles are assigned to A-positions, but not all the A-positions are assigned a thematic-role.

The requirement that each thematic role of a predicate must be assigned to a constituent and that there must be no NPs that lack a thematic-role is summed up in the

### *Theta Criterion*

Each argument is assigned one and only one theta-role.

Each theta-role is assigned to one and only one argument.

#### 1. 5 The Extended Projection Principle

The structural requirement that sentences must have a subject, which implies the assignment of an external theta-role, is an addition to the Projection Principle. Thus, the Projection Principle has to be modified taking into account that not only must lexical properties of the words be projected in the syntax of the sentence, but, in addition, sentences must have a subject in terms of grammatical functions. This last requirement is called the EXTENDED PROJECTION PRINCIPLE.

The grammatical function of Subject is different from the other A-positions because some elements in the subject position of a sentence are not necessarily assigned a thematic-role, hence are not arguments. In English we do not assign any thematic-role to the expletives *there* and *it* in Subject position, and verbs like *seem* select an argument as their object (in general, a sentence), but they do not assign a role to what appears in subject position (in general, an expletive).

(11) a. It surprised me that you were so late.

b. There are many restaurants in London.

In (11a. and b.) *it* and *there* contribute nothing to the meaning of the sentence; their presence is required only for structural reasons: they are place-holders for the otherwise unfilled subject position at S-structure.

Parallely, in Italian, the subject position can be filled by an invisible *pro* when a lexical subject is not inserted; small *pro* can be an expletive and it satisfies the Extended Projection Principle with verbs like “sembrare”.

(12) *pro* Sembra che pioverà.

Combining the Extended Projection Principle with the Theta Criterion we obtain the condition according to which there must be one argument in D-structure for every theta-role of the lexical entry. Thus, every complement inside a maximal projection must be categorially selected and theta-marked, but the subject has not to be necessarily theta-marked.

## 1. 6 Case Theory

GB theory requires that movement is always motivated.

CASE THEORY accounts for some of the formal properties of overt NPs and integrates the traditional notion of Case into the formal grammar. According to it, the relations among the elements of a sentence appear in some languages mainly or exclusively from the order of the words, from their morphology in others. NPs realize the predication of the sentence and are theta-marked directly or indirectly, except for the cases in which the subject is not theta-marked.

(13) Jim called Bob.

If we replace the argument NPs with the corresponding pronouns in (13), the third person pronouns appear in different forms depending on their position in the sentence.

(14) He called him.

When the third person pronoun is the internal argument it takes the ACCUSATIVE CASE *him*; when it is the external argument of a finite clause it takes the NOMINATIVE CASE *he*.

A third Case form found in English is the GENITIVE CASE.

(15) a. His car is new.

b. John's car is new.

In modern English, the overt morphological realization of Case in full lexical noun phrases is restricted to the GENITIVE. NOMINATIVE and ACCUSATIVE are not overtly realized in full NPs. An overt distinction between them is still to be found in the pronoun system, though even there we find several examples of two Cases, or more, having the same morphological realization. On the other hand, other languages, such as Latin or German, have a morphologically rich Case system.

We cannot say that English lacks Case, but rather that it has a system of abstract Case, which means that Case is assigned but in general not realized through morphology. Abstract Case is part of the Universal Grammar, i.e. it is a property of human language. So we can say that in English the abstract Case marking often is not morphologically realized. The degree of morphological realization of abstract Case varies parametrically in different languages.

CASE THEORY assigns an abstract Case to NPs and thus gives a principled explanation of many aspects of movement. Case is assigned according to the particular grammatical configuration in which the NP is

located. In each configuration one specific element functions as Case assigner.

NOMINATIVE and ACCUSATIVE are called STRUCTURAL CASES because they are assigned at S-structure. NOMINATIVE is reserved for the NP in the subject position of finite clauses and is assigned by the feature TENSE in INFL. ACCUSATIVE is assigned by a transitive verb to its structural object NP.

Case can be assigned within a prepositional phrase, too.

(16) You went to the cinema with him.

In (16) the preposition *with* assigns the ACCUSATIVE CASE to its internal argument *him*. In English, the two types of ACCUSATIVE take the same form; if we have to distinguish them, we will call OBLIQUE CASE the Case assigned by the preposition.

The GENITIVE CASE shows a more complex situation. Let's have a look again to the examples in (15). In (15a. and b.) the GENITIVE CASE is not assigned by a single element, but by the context: it is considered as a global property of the structure [<sub>NP</sub> NP \_\_\_\_], that is a noun phrase followed by something else within the NP.

Chomsky calls the GENITIVE and the OBLIQUE CASE INHERENT CASES as they are assigned at D-structure and inherently required and realized by the context.

CASE THEORY is used in GB to explain restrictions of different kinds, as the assignment of Case has some implications in the structure of the sentence.

The general principle involved is the

### *Case Filter*

- a. Every overt NP must be assigned abstract Case.
- b. An overt NP must be assigned one and only one Case.

This requirement is called a “filter” because it “filters out” any constructions containing an overt NP which is not been assigned Case by a Case assigner. In general, filters control whether a possible sentence is grammatical or not.

The CASE FILTER interacts with other important aspects of GB theory, in particular with the THETA CRITERION: all the positions which are theta-marked must have abstract Case because they must contain an NP.

Case requirements play an important role causing or, on the contrary, blocking the movement of lexical elements.

Movement occurs where there is the possibility that the CASE FILTER could be violated. The CASE FILTER forces some types of movement because of the need that every NP has to get Case. Some verbs like *seem* and some structures like the PASSIVE FORM do not allow the assignment of structural Case to the arguments governed by the verb, so they cause the movement of NPs.

(17)*seem*: verb [\_\_\_ IP]

Bob seems to be intelligent.

D-structure: e seems[ Bob to be intelligent].

S-structure: Bob seems [t to be intelligent].

*Seem* does not assign the external theta-role, can take a clause as its internal argument and does not assign Case to the element which it is



followed by. Thus, the CASE FILTER imposes the movement of the noun phrase after the verb to the empty subject position of *seem*, where it can receive the NOMINATIVE CASE.

(18) *eat*: verb [\_\_\_ NP]

The apple was eaten by Bob.

D-structure: e was eaten the apple by Bob.

S-structure: The apple was eaten t by Bob.

In (18), the CASE FILTER requires that the verb *eat* assigns the ACCUSATIVE to the NP. As the PASSIVE blocks the assignment of ACCUSATIVE Case, then the NP cannot receive Case and the CASE FILTER is violated. Once again, the noun phrase is forced to move to a position in which it can receive Case, that is the empty subject position of the auxiliary sentence. The abstract trace *t* remains in the original position and has no Case.

#### *Exceptional Case Marking*

The ACCUSATIVE CASE is assigned also to the subject NP of an infinitival subordinate clause with a lexical subject. Some verbs can take this type of infinitival clauses as their internal argument.

(19) *believe*: verb [\_\_\_ IP/CP ]

*leave*: verb [\_\_\_\_\_]

a. I believe[that he has left].

b. I believe [him to have left].

In (19a.), the subject of the subordinate clause receives the NOMINATIVE CASE from the inflected verb of the secondary clause *leave*, whereas the overt subject of its correspondent infinitive clause

(19b.) cannot get the NOMINATIVE CASE, nor can it get the ACCUSATIVE from the verb of its clause, being in subject position and being, in this case, the verb an infinitive intransitive verb. The candidate for Case-marking is the transitive governing verb of the governing clause: as it can Case-mark the NP which follows it, it is plausible that it can assign the Case to the subject of its sentential complement. In English, infinitival IPs do not constitute a barrier for outside government by this type of verbs and hence a verb like *believe* can assign Case to the relevant NP. The condition in which a verb can govern a NP inside an IP and assign it Case is often referred to as EXCEPTIONAL CASE-MARKING.

The exceptionality is related precisely to the fact that maximal projections, like IP, normally constitute barriers for case-marking from the outside. This procedure for Case assignment is much wider in Latin and in old Romance Languages.

### *Adjacency*

Government is not a sufficient condition for Case assignment in English. A further structural requirement is that the Case assigner and the element to which Case is assigned have to be adjacent. The adjacency requirement predicts that the Case assigners must not be separated from the NPs which they Case-mark by intervening material, if so the sentence would be ungrammatical.

(20)a. Bob eats an apple quickly

b. \*Bob eats quickly an apple.

c. Bob sincerely believes Mary to be intelligent.

d. \*Bob believes sincerely Mary to be intelligent.

In (20b. and d.) the NPs *an apple* and *Mary* are divided from their Case assigners, the verb *eat* and *believe* respectively, and the sentences are ungrammatical. On the contrary, (20a. and c.) are grammatical sentences: the constituents are just the same of their ungrammatical correspondents, but now the condition of ADJACENCY is respected. This is peculiar of English and not shared by other languages, for example Italian. It has to be noted that in many cases the requirement observed can be also the result of restrictions on the movement of the verb.

### 1. 7 Subjacency

As there are restrictions on the types of elements which can be moved and on the sites from which and to which they can move, we have some limitations also on the boundaries of movement (how far an element can be moved). The “local” restrictions on movement do not allow that an element can move too far with only one leap, in particular they block the movement if there are too many bounding nodes between the starting point and the landing site. The most important constraint on the distance of movement is known as the

#### *Subjacency Condition*

Movement cannot cross more than one bounding node.

This is an important argument in favour of a precise, geometrical, structural relation between elements. So, it is not a matter of distance,

but of the types of nodes that cannot be crossed; for example, in English the bounding nodes are IP and NP.

The calculation of the number of nodes which an element has crossed is not important: the fundamental distinction is one node vs. more than one bounding node. We apply the condition to every cycle, that is to every single step of movement, not to the total sum of the nodes which are crossed on the whole in a complete sentence.

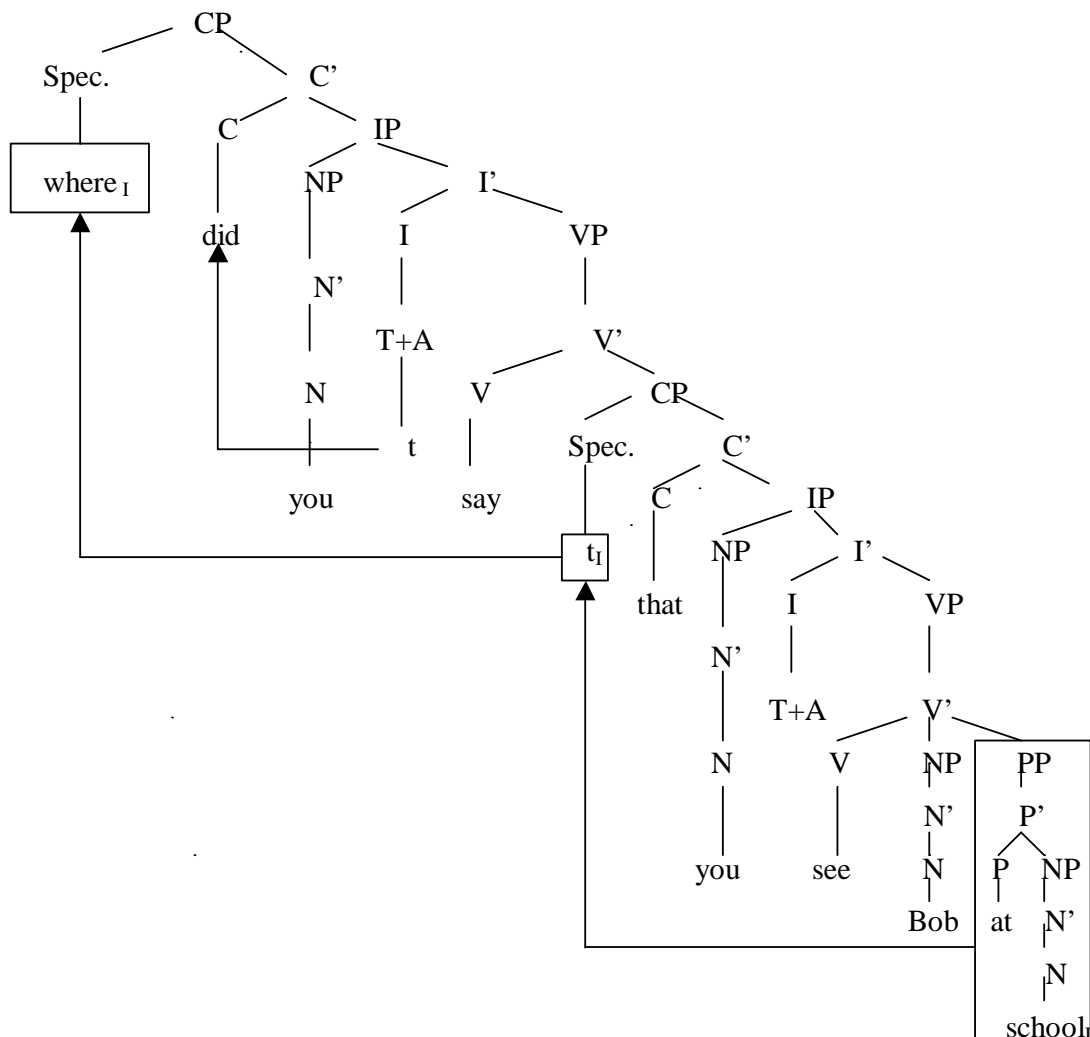
This part of the theory is relevant for the analysis of questions: the long movement of a wh-element gives an evidence of this.

**See Fig.1** Here the movement of the wh-element is not a single step movement. The element *where* does not move in one single step from the position of PP to its final landing site, the specifier of CP of the main clause: it moves first to the nearest vacant position of specifier of CP. From there it moves on the next vacant specifier of CP leaving a trace in each of the two extraction sites. Traces indicate the vacated positions and this includes both the starting position of the moved phrase at D-structure and any intermediate positions touched by the successive steps of movement. Each of the steps is an application; each clause (CP) defines a domain of application for wh-movement, a syntactic domain in which wh-movement can be applied to.

The vacant position of specifier of CP of the subordinate clause is a sort of passway for movement; it is not a position where Case or theta-role is assigned, in this sense it is available for movement: thanks to the availability of this position, movement out of the lower clause can go through. When this intermediate position is already filled, wh-movement

**Fig.1**

Ex.: You said that you saw Bob at school.



Where did you say that you saw Bob?

would have to cross two Ips in one step and violate the SUBJACENCY CONDITION, so the process would lead to an ungrammatical structure.

By inspecting the distance in terms of bounding nodes between the antecedent and the traces, we can determine whether the movements respect the SUBJACENCY CONDITION or not.

Finally, the SUBJACENCY CONDITION undergoes some parametric variation concerning the bounding nodes.

In English, NP and IP are the relevant bounding nodes.

- (21)a. \*<sub>CP</sub> Who<sub>I</sub> did <sub>IP</sub> Bob tell you <sub>CP</sub> when<sub>J</sub> <sub>IP</sub> he had seen t<sub>I</sub> t<sub>J</sub> ]]]]?  
 b. <sub>CP</sub> Who did <sub>IP</sub> Bob tell you <sub>CP</sub> t<sub>2</sub> that <sub>IP</sub> he had seen t<sub>1</sub> ]]]]?

In (21a.) the interrogative pronoun *who* has to cross two bounding nodes in a single leap in the movement from its extraction site ( the Object of the subordinate clause) to its landing site at the beginning of the main clause, because of the presence of the wh-element *when* in the lower specifier of CP, which renders this position unavailable as landing site for *who*. Thus, it violates the SUBJACENCY CONDITION and the resultant sentence is ungrammatical. On the contrary, in (21b.), the position of lower specifier is not filled with anything, so the interrogative pronoun *who* is free to get there and, in a second time, to reach the position of higher specifier of CP leaving a trace in each extraction site. The two step movement allows the pronoun to cross only one bounding node at a time; in this way the SUBJACENCY CONDITION is respected and the sentence is grammatical.

In Italian the restrictions are apparently limited to NP and CP.

- (22)a. Mi infastidisce di non avere visto la partita.  
 b. Mi infastidisce il non avere visto la partita.  
 c. <sub>CP</sub> Cosa <sub>IP</sub> ti infastidisce <sub>PP</sub> di <sub>CP</sub> non avere visto t]]]]]?  
 d. \*<sub>CP</sub> Cosa <sub>IP</sub> ti infastidisce <sub>NP</sub> il <sub>CP</sub> non avere visto t]]]]]?

In Italian, some verbs can take sentential complements introduced both by the complementizer *di*, as in (22a.), and by the definite article, as in

(22b.) But, if we derive the respective interrogative sentences, we will find a clear contrast. (22c.), the correspondent of (22a.), is grammatical, while (22d.), derived from (22b.) is ungrammatical.

Once again, the SUBJACENCY CONDITION can help us to explain the asymmetry: in (22c.) the interrogative pronoun crosses only one bounding node (CP); in (22d.) it crosses two bounding nodes (CP and NP) at a time.

## **2. Types of movement**

### **2. 1 Introduction**

The topic of this thesis, i.e. questions, takes into consideration two types of movement:

1. the movement of the verbs from I to C (head movement); this is only possible for auxiliaries and modals in English, as a general constraint on V-movement in this language
2. wh-movement, the movement of wh-constituents to the specifier of CP (XP movement).

A third type of movement, again an XP movement, is only indirectly related to question formation: the NP movement, the movement associated with the passive form in which an NP is moved to an empty subject position.

## 2.2 V-movement

At an abstract level of representation, the inflectional element TENSE cannot be part of the verb phrase, it must be generated separately from it. The tense specification is separated from VP and is associated with the INFL node. From an intuitive point of view, VP is related with the permanent properties of the verb (the arguments it selects), IP is related to the particular characteristics of an event (TENSE, ASPECT, AGREEMENT, ...).

INFL is the site where TENSE is realized. In sentences with an overt auxiliary inflected for TENSE, the tensed auxiliary is generated under INFL; in sentences without an overt auxiliary, TENSE is an independent category dominated by INFL. Hence, being an affix, it must be attached to the verb.

In English, the inflectional properties of the verb conjugation are minimal; person and number agreement often does not have any morphological realization. Though the overt realization of person and number is restricted, there is abstract AGREEMENT anyway, and we assume that its properties are dominated by INFL, too.

As we have already seen before, V-movement is a head-to-head movement.

In many languages V, the head of VP, moves leftwards and upwards, reaches the position of head of IP and takes up the inflection, giving origin to the complete verbal form.



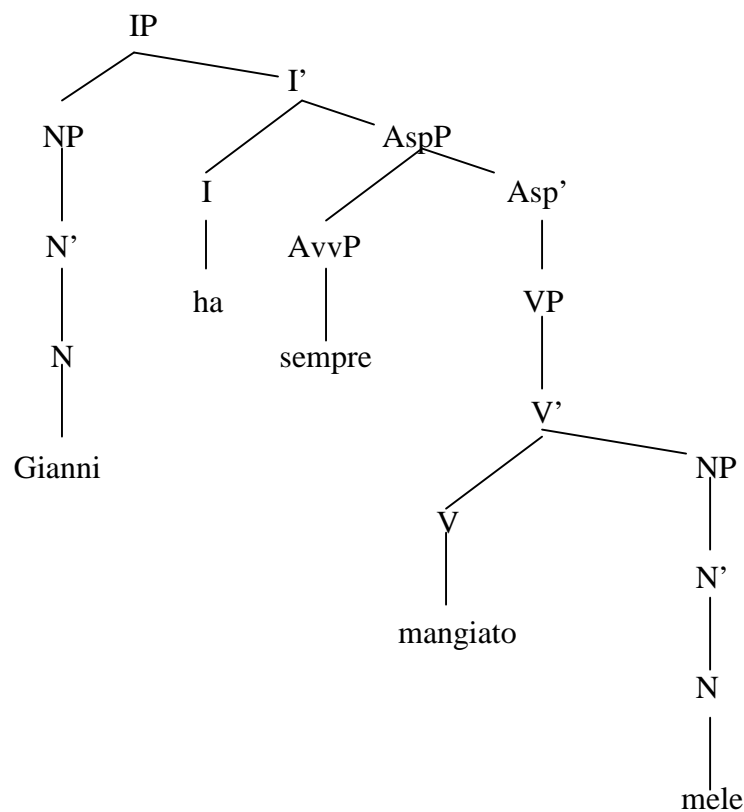
Italian provides us with a clear example of this type of movement. If we suppose that the adverb occupies the Specifier of a projection of Aspect, we can account for this order of adverbs and verbs in Italian and we can better understand the differences with English.

(23) a. Gianni ha sempre mangiato mele.

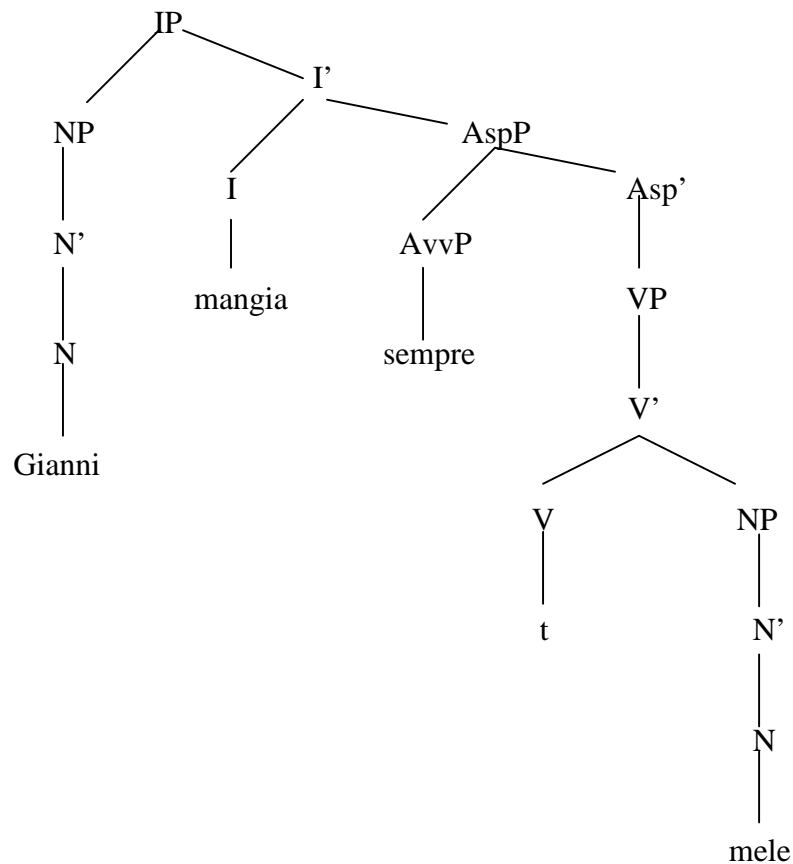
b. Gianni mangia sempre mele.

When we have a sentence containing a compound tense, as in (23a.), the auxiliary fills the head of IP, the past participle remains in V and the overt adverb is put in the intermediate position (see **Fig.2**); whereas, when we have a simple tense, as the example in (23b.) shows, the lexical verb goes up to I leaving a trace in V: it has then to cross over the filled adverbial position (see **Fig.3**).

**Fig.2** Gianni ha sempre mangiato mele.



**Fig.3** Gianni mangia sempre mele.



The English verb has a different behaviour. If we compare the positions of verbs and adverbs in the English sentence to the previous examples of Italian, we will see that the English verb moves very little in the structure. It is probable that the differences in movement in different languages are connected with morphology: languages with rich surface morphology show evident movements of the verb; whereas languages with a poorer surface morphology have limited movements of the verb. But the relation is not so neat and uncontroversial as one would wish.

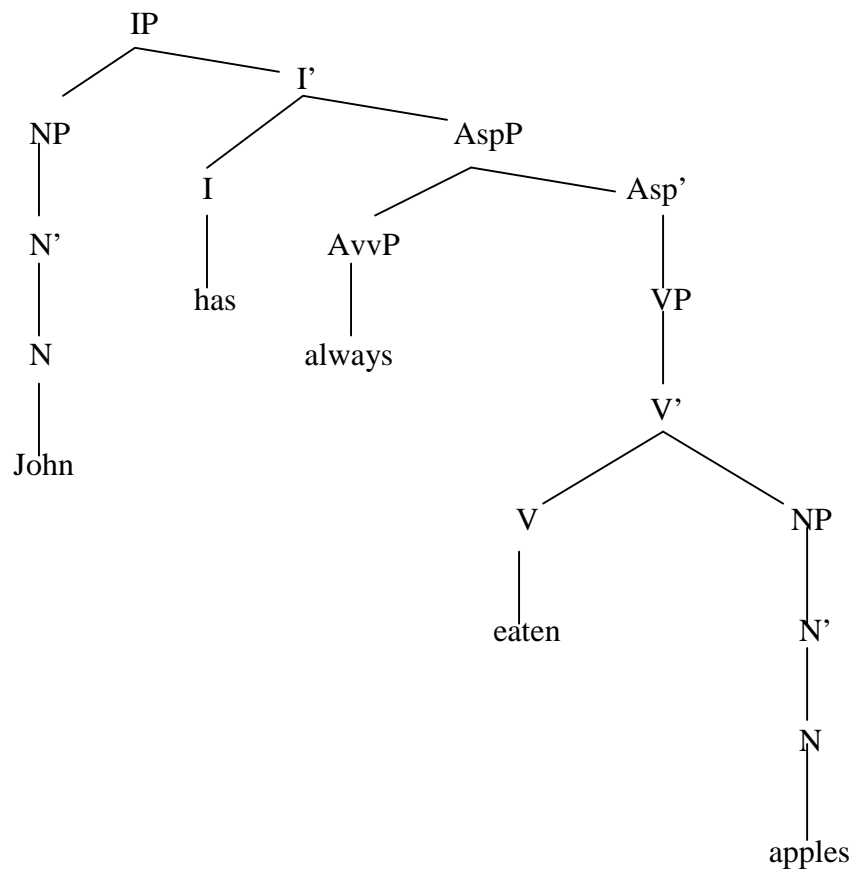
The hypothesis is: when the verb appears on the left of the adverb, this means that it has moved there from its basic position.

(24) a. John has always eaten apples.

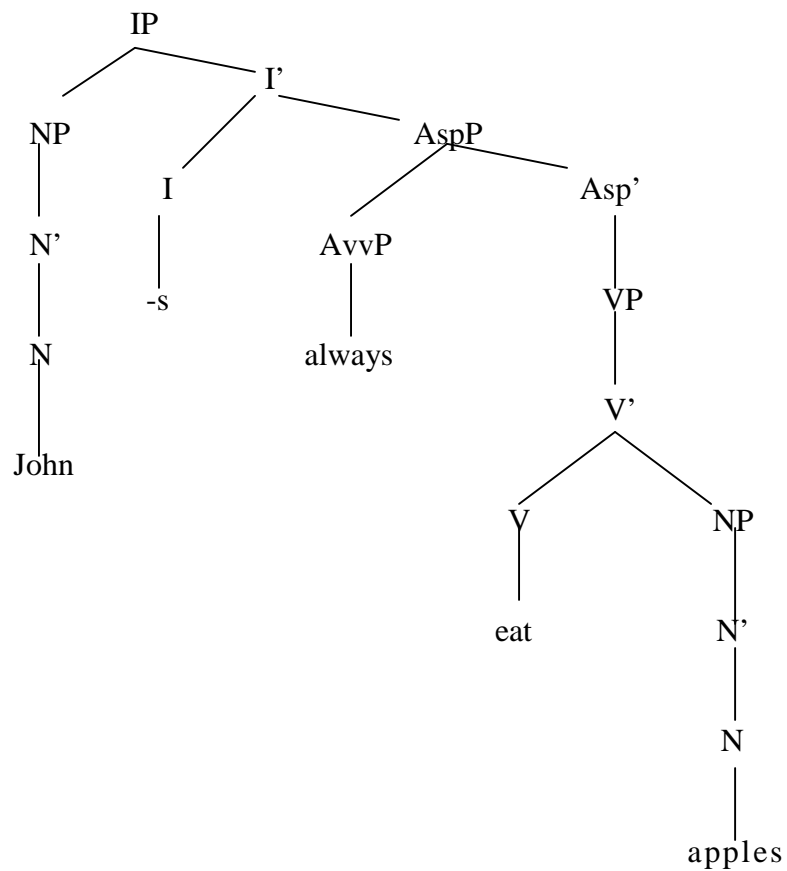
b. John always eats apples.

In English, only an auxiliary, a modal and a do-support can be placed in I, see (24a) and **Fig.4**; a lexical verb cannot move from its original position V, see (24b.) and **Fig.5**.

**Fig.4** John has always eaten apples.



**Fig.5** John always eats apples.



We have a further evidence of this hypothesis in the negative form. If the lexical verb would move, we should have the negative form \*LEXICAL VERB + NOT.

(25) \*John eats not t the cake.

But (25) is ungrammatical, so we can conclude that in this case the verb does not move.

On the other hand, the form \*NOT + LEXICAL VERB in (26) is ungrammatical, too, because the presence of the negation does not allow the verb to have the right connection with the abstract information contained in I.

(26) \*John not eats the cake

The correct negative form is achieved with the insertion of a do-support in I.

(27) John does not eat the cake.

V-movement is strongly connected with the analysis of interrogative sentences.

In English direct interrogative sentences, we can find the inversion between the verb and the subject, both in POLAR QUESTIONS, as in (28a.), and in CONTENT QUESTIONS, as in (28b.); in the latter case, we have the inversion together with wh-movement.

(28) a. Did you go to Scotland last summer?

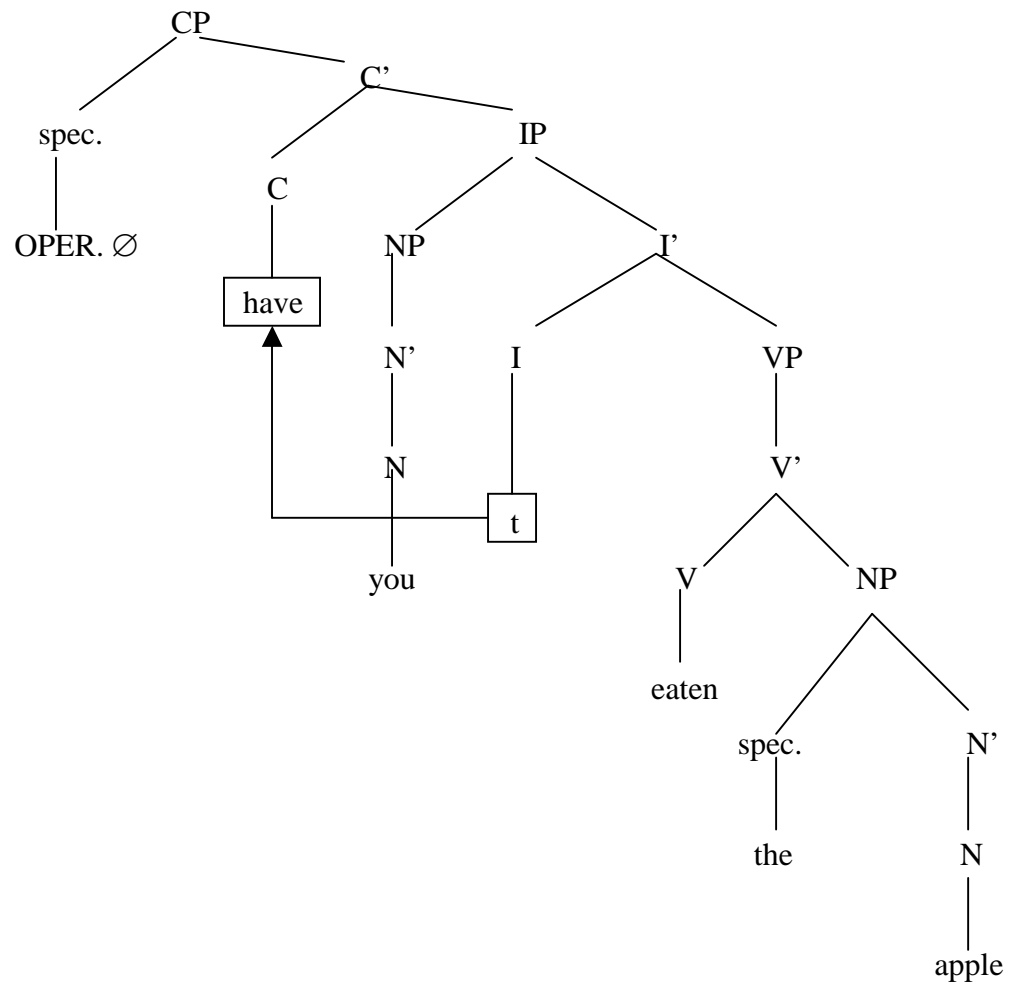
b. Where did you go last summer?

When an auxiliary is present, it moves out of its basic position in the underlying structure, where it has received the inflectional elements, that is I, to the head C of CP in the derived structure. See **Fig.6**.

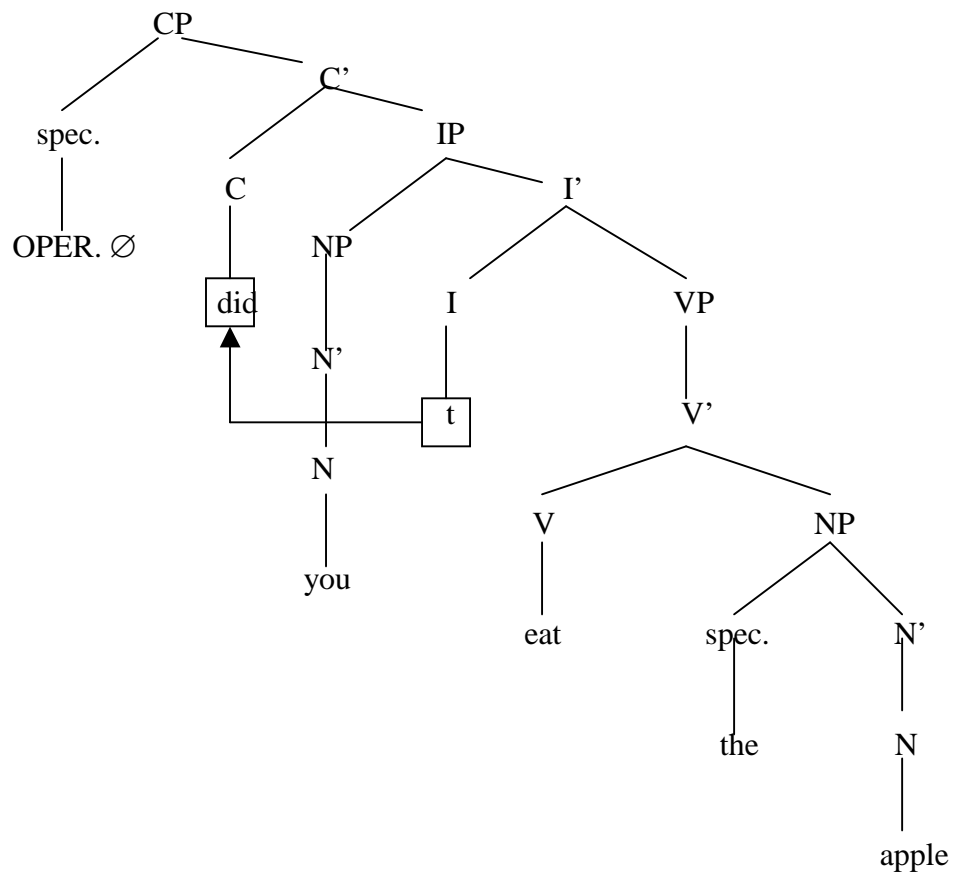
If there is no auxiliary, the lexical verb, which is not able to reach INFL, cannot raise to C; in this case, as with the negation *not*, a verbal element is required, so that a do-support is introduced. See **Fig.7**.

It seems that a wh-criterion exist, a requirement for movement and adjacency of a wh-element or a question operator and a verb

**Fig.6** Have you eaten the apple?



**Fig.7** Did you eat the apple?

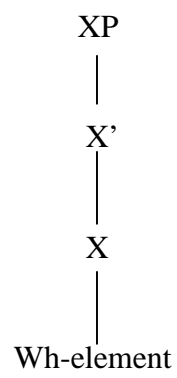


### 2.3 Wh-movement

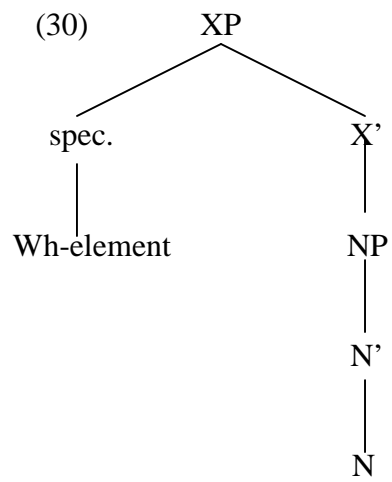
The second type of movement, called WH-MOVEMENT, concerns the movement of wh-constituents which are phrasal constituents of various kinds (noun phrases, adverb phrases, prepositional phrases and adjective phrases) formed by or containing a word that begins with *wh* or can be paraphrased with a wh-phrase.

Wh-elements are interrogative and relative elements: they can be the head of the moved phrase (29), its specifier (30), or the complement of a prepositional phrase (31).

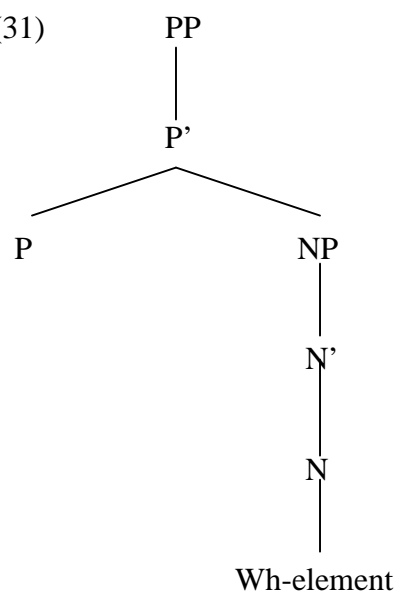
(29)



(30)



(31)





In the case of the prepositional phrase containing a wh-element, we can find two possibilities:

1) the wh-phrase is moved out of the PP and the head of the PP is left behind → this phenomenon is called PREPOSITION-STRANDING

(32) a. What are you looking at?

b. Who did you sell your house to?

2) the preposition is moved along with its complement NP → this is called PIED- PIPING.

(33) To whom did you sell your house?

In general, English allows both possibilities. There are circumstances where deferment is optional, depending chiefly on stylistic preference. Where the prepositional complement is an interrogative pronoun, deferment indeed is normal: in the cases where there is a close relationship between the verb and the preposition, in the sense that the preposition is an essential part of the verb itself, as in (32a.), the alternative arrangement appears awkward and rare. Elsewhere there can be a choice as in (32b.) and (33); but PIED-PIPING is usually felt as more formal.

The possibility of PREPOSITION-STRANDING is subjected to parametric variation in languages. In Italian it is disallowed: the preposition always moves at the beginning together with its complement NP.

(34) a. A chi hai venduto la tua casa? / \*Chi hai venduto la casa a?

b. Con chi sei andato al cinema? / \*Chi sei andato al cinema con?

c. Da dove vieni? / \*Dove vieni da?

But, where does the wh-phrase move to?

Since the wh-element is inserted in its basic position with a theta-role and receives Case during the derivation, then it follows that it must have as its landing site an A' (=non A)-position, where no case and no theta-role have been assigned, otherwise case and theta requirements would be violated because the wh-element would receive one or both of them twice. This site is in fact the empty position of the SPECIFIER of CP. Furthermore, wh-movement moves phrasal projections of different categories, so its landing site must be a position which is not specified for the phrasal category: a non-filled SPECIFIER of CP can receive phrases of any syntactic category. The movement of a wh-element towards the SPECIFIER of CP can take place inside the sentence in which it is theta-marked (SHORT MOVEMENT → see **Fig.8**) or beyond its own clause to the SPECIFIER of CP of a higher clause (LONG MOVEMENT → see **Fig.9**).

The next question is whether the wh-element is always free to move to the specifier of CP or not. The answer varies, as the accessibility of Spec.CP is subjected to parametric variation.

In many languages, we can find in CP the following sequence: wh-element in position of specifier of CP followed by an overt complementizer in the position of head of CP in interrogative and relative clauses, as the examples (35a. and b.) show.

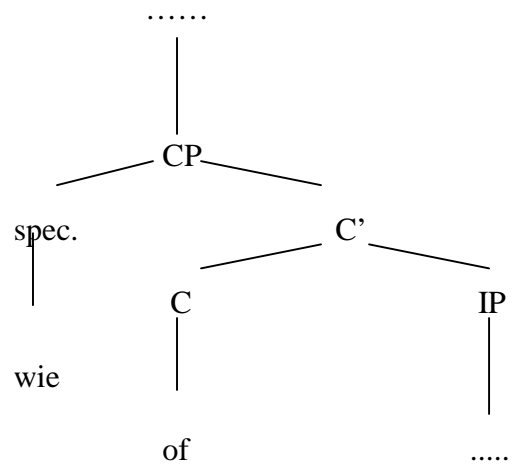
(35) a. DUTCH

Ik weet niet wie of Jan gezien heeft.

I know not whom whether Jan seen has.

“I do not know whom Jan has seen.”

(in Haegeman, 1991)

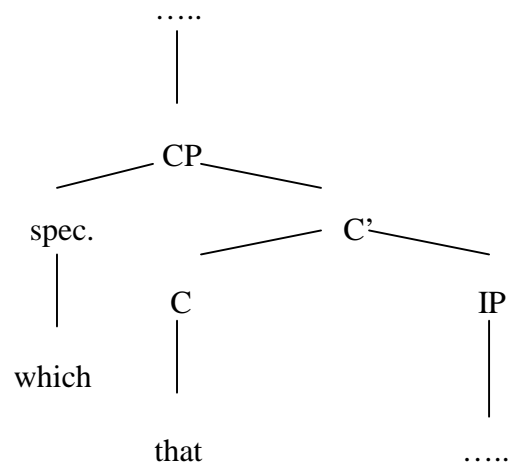


b. MIDDLE ENGLISH

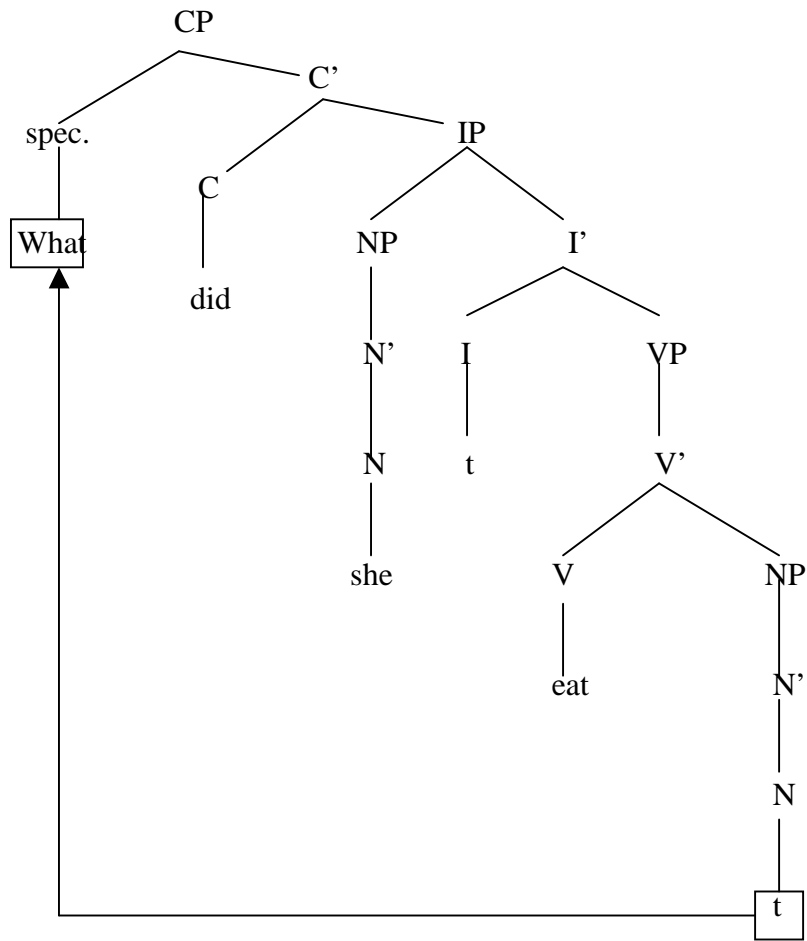
Of alle thynges which that I have sayd ...

“Of all the things which I have said ...”

(in Rizzi, 1990)



**Fig.8** What did she eat?



In modern Standard English and Standard Italian, there is a filter which does not allow the occurrence of a *wh*-element in position of specifier of CP when the head of the same CP is already filled with an overt complementizer.

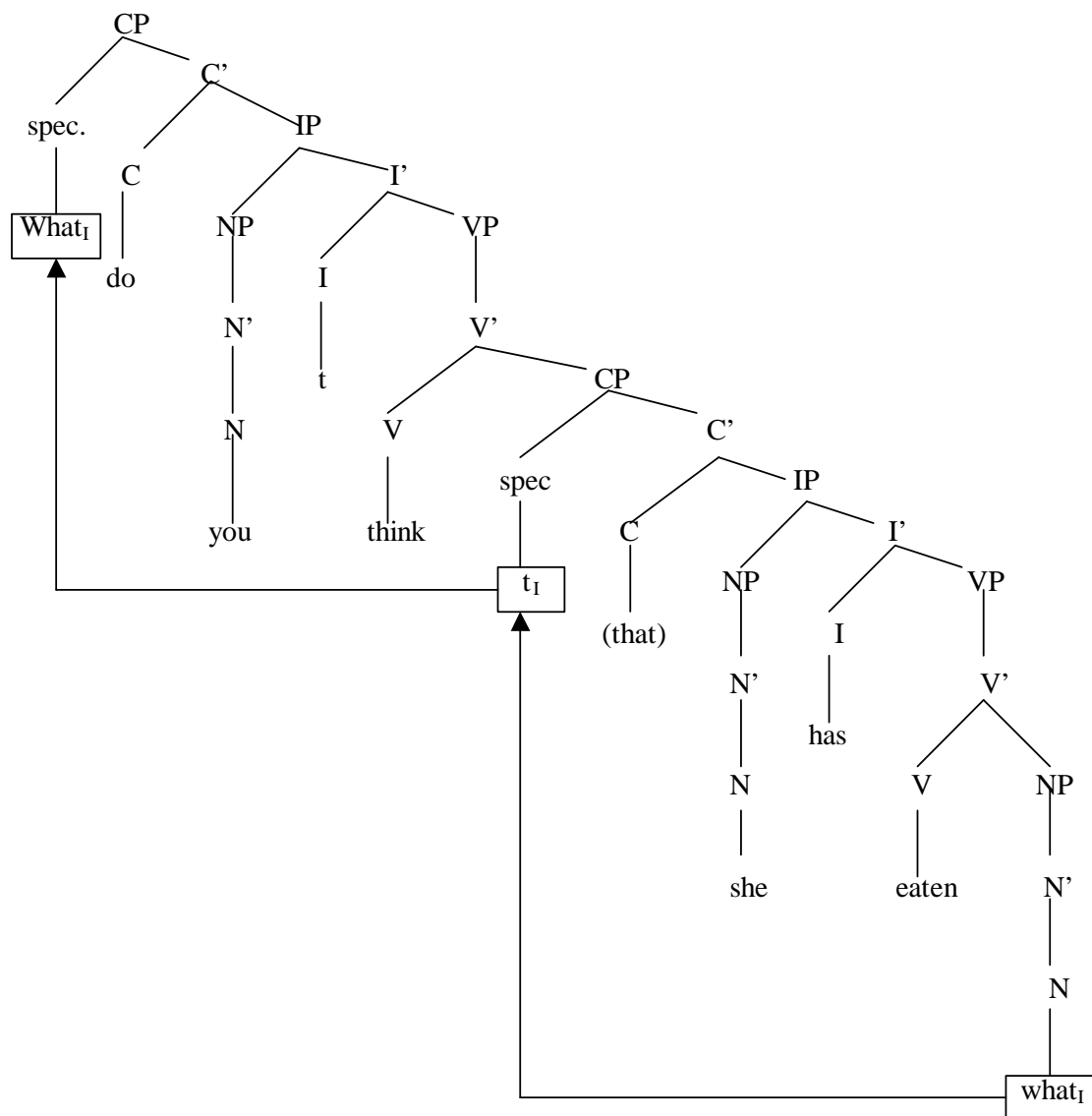
- (36) a. \*I do not know who that came to the cinema with you.  
b. \*Non so chi che è venuto al cinema con te.

The particular filter we are talking about is called the *Doubly Filled Comp Filter*

When an overt wh-phrase occupies the specifier of some CP, the head of that CP must not dominate an overt complementizer.

As we have already seen, the DOUBLY FILLED COMP FILTER is not universal, but is active in Standard English and Standard Italian.

**Fig.9** What do you think (that) she has eaten?



### *Subject Movement*

When we move a wh-element from the subject position, we find some problems.

Let us compare the short movement of a direct object (37a.) with the same rule applied to a subject wh-element (37b.).

(37) a. Who<sub>I</sub> did<sub>J</sub> you t<sub>J</sub> see t<sub>I</sub>?

b. Who ate the apple?

As we can see from the examples above, the main difference between (37a.), where the wh-element moves from the object position, and (37b.), where the wh-element is in the subject position, is that in (37b.) the verb remains in its basic position and is perfectly fitted there. Thus, as an obvious consequence, no do-support is introduced when we have a sentence with a simple tense verb.

But, if the verb does not move, what happens about the subject?

(38) a. Who<sub>I</sub> t<sub>I</sub> bought the house?

b. Who<sub>I</sub> do you think t<sub>I</sub> bought the house?

While in the long movement, (38a.), we have no doubts that the subject wh-element is extracted from the lower clause leaving a co-indexed trace, in the short movement of this kind, (38b.), the matter is not so clear. In the literature, two contrasting proposals have been put forward. Until recently, it was assumed that, by analogy with object and long subject movement, the subject wh-phrase also moves. Under this view, (39b.) represents the S-structure of (39a.).

(39) a. Who went to England with you?

b. [<sub>CP</sub> Who<sub>I</sub> [<sub>IP</sub> t<sub>I</sub> went to England with you]]?

In contrast with the long movement in (38a.), the effect of the short movement in (38b.) cannot be observed on the surface string as  $t_I$  has no phonetic content.

We call VACUOUS MOVEMENTS the movement transformations whose effects cannot be observed.

The second hypothesis about this question argues that the subject wh-element involved in the short movement does not move at all and that the vacuous movement analysis of wh-questions may not be the optimal solution to the problem.

Nevertheless, from now on I will follow the line of the vacuous movement analysis, which has the advantage of minimizing the difference between the different cases of movement.

The other question concerning the subject movement is the fact that most speakers feel an asymmetry between the sentences where an object phrase is extracted and those where a subject is extracted. In the first type of sentences, it does not matter whether the head of the lower CP is overtly realized or not, i.e. whether a complementizer *that* is present or not, as in (40a.); in the second type of sentences we can extract a subject from inside a lower clause only if there is no overt complementizer in the lower C, as in (40b.).

- (40) a. Who<sub>I</sub> do you think (that) John invited to the party  $t_I$ ?  
b. Who<sub>I</sub> do you think (\*that)  $t_I$  invited Mary to the party?

The discussion on why the complementizer *that* must be deleted in sentences affected by the long movement of a subject wh-element has not reached a conclusion yet. Intuitively, the deletion of *that* occurs because

the overt complementizer screens the relationship between the wh-element and its trace and it has not lexical content enough to govern the trace.

### 3. Binding theory and wh-traces

BINDING THEORY is that part of GB theory which investigates the conditions under which the expressions within a sentence can refer to the same entity or not. It is mainly interested in how the different categories of noun phrases (in particular anaphors, pronouns and referential expressions like nouns) are distributed in the sentence.

It consists of three principles:

*Principle A:* an anaphor (+a) must be bound in its governing category (41a.);

*Principle B:* a pronoun (+p) must be free in its governing category (41b.).

*Principle C:* an R-expression (-a;-p) must be free everywhere (41c.).

- (41) a. John<sub>I</sub> hurt himself<sub>I</sub>.  
b. John<sub>I</sub> Invited him<sub>J</sub>. / John<sub>I</sub> think that Mary invited him<sub>I/J</sub>.  
c. John is a student.

We can say that wh-traces are of the R-expression type, like full NPs. Furthermore, wh-traces are case-marked.

- (42) a. Who did Bob call t?  
b. Who do you think t (that) Bob called?  
c. Who t called Bob?



d. Who do you think *t* called Bob?

In (42a. and b.) the verb *call* assigns the ACCUSATIVE CASE to its complement NP; in (42c. and d.) the finite I assigns the NOMINATIVE CASE to the wh-trace in subject position.

The situation of the antecedent of the trace in the context of the wh-movement is that it is not in a position to which case is assigned.

#### 4 Movement and chains

As we have already seen, there are two levels of syntactic representation: one before movement and the other after movement. When a constituent is moved, an unfilled position, a gap, remains in its extraction site, but the moved element and the gap are linked or chained. We define a CHAIN as the link between two positions or, better, as the reflection at S-structure of a “history of movement” made up by the positions in which an element has moved and begun in the A-position where it was at D-structure. We indicate that two positions are part of the same chain by co-indexation.

(43) When<sub>I</sub> are you leaving *t*<sub>I</sub>?

There are two types of chains:

1) A-chains → an NP moves from its A-position at D-structure to an empty A-position which has not been assigned a theta-role and in which it can receive case. For example, in NP movement the elements linked by co-indexation are part of an A-chain. The passive sentence is an instance of this case:

(44) The song<sub>I</sub> was played t<sub>I</sub> by Bob.

In (44), the relevant argument NP is *the song*. The NP is the internal argument of *play*, but it has left its basic theta-position in order to pick up NOMINATIVE CASE in the subject position. The moved NP forms an A-chain with the vacated position: (the song<sub>I</sub>; t<sub>I</sub>). The chain is visible thanks to the NOMINATIVE CASE assigned to the highest position and is thus able to receive the internal theta-role from *play*.

2) A'-chains → an element moves from an A-position at D-structure to an A'-position at S-structure; this is the case of a wh-element moving to the position of COMP specifier.

(45) Who<sub>I</sub> did you call t<sub>I</sub> yesterday?

In (45) the relevant argument NP is *who*, which is the internal argument of *call*. In its basic position at D-structure it receives ACCUSATIVE CASE and theta-role, so it has to move to an empty position without Case and a theta-role, that is the empty position of specifier of COMP. In this way, the moved NP forms the A'-chain (who<sub>I</sub>; t<sub>I</sub>) with the vacated position.

We can incorporate the chains with the rest of the theory saying that every chain has to contain an overt NP with Case and giving a reformulation of the *THETA-CRITERION* in terms of chains:

Each argument A appears in a chain containing a unique visible theta-position P, and each theta-position P is visible in a chain containing a unique argument A.

The requirement that Case is assigned to a chain means that in a chain there must be a position which can receive the Case. At the end of

the derivation, the element has one Case and one theta-role, even if these are picked up in different positions, provided that the chain is correctly formed. In general, a chain can be seen as a single element and we have to be careful of the fact that empty positions count as much as filled positions, in order to reconstruct the “derivational story” of the element.

## **II. INTRODUCTION TO THE EXPERIMENT AND SIMPLIFICATION OF THE THEORY.**

### **1. Description of the experiment**

At this point of my work, I had the task to make the linguistic theories and principles simpler and available to students of fifteen. My syntactic experiment was led in a second year class of High School. I chose the LICEO SCIENTIFICO because I thought the students to be more involved in matters of syntax, grammatical analysis and interest in theory than students of technical schools are. And I chose a second year class because I believed that it would have been too soon to introduce this kind of exposition in a first year form, on the other hand, it would have been too late to explain questions in a third year form.

I took into consideration only the interrogative structures required by the school programmes of a LICEO and my presentation was made in Italian, both for the need that I had to be sure the students could understand me clearly and to respect the custom of their English teacher.

First of all, I wanted to find an alternative simplified version of the tree structure trying to give the students a useful and vivid representation of the process. The starting point was the active simple sentence. From the “normal” sentence, through V and wh-movement, I had to derive the different types of interrogative sentences. In order to achieve this aim, I needed to create two empty positions at the beginning of every clause, main or subordinate, corresponding to the specifier of

CP and the head of CP, i.e. the two landing sites of the two types of movement I was interested in.

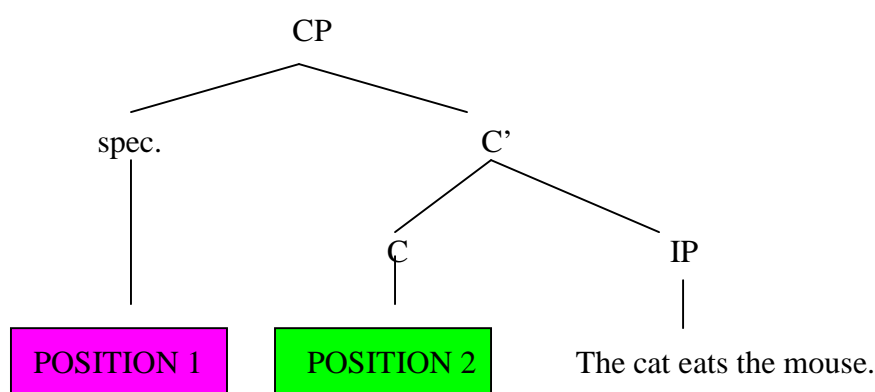
I called POSITION 1 the position of the specifier of CP and POSITION 2 the position of the head of CP, and I coloured them with two different colours (red and green respectively) to mark the difference best. In my opinion, the visual component of the method had great importance because it gave the students a help when they had to recall to their mind the positions and the elements which filled them. See **Fig.10**.

I gave then the two lists of the elements which could fill the two positions and explained one by one the type of elements contained in the lists. I made clear that the two positions are different, can contain only one element or phrase at a time, are not interchangeable and are filled with different elements.

In POSITION 1 we can find:

- a WH-ELEMENT → a question element, adjective, pronoun or adverb usually beginning with *wh-* (except for *how*)
- the EMPTY ( $\emptyset$ ) OPERATOR → an element which is not phonetically realized with the only function to define the type of clause that follows it
- a TRACE → an element which is not phonetically realized, i.e. with no lexical content, that remains in the extraction site of a moved element. The trace *t* is assumed to belong to the same syntactic category of its antecedent and to be co-indexed with it.

**Fig.10**



The teacher told me that the students had studied the wh-elements previously, so we revised them together. On the contrary, the definitions of empty operator and trace were completely new for them, but I intended to go into the question better and to explain the functions of these two elements dealing with real examples.

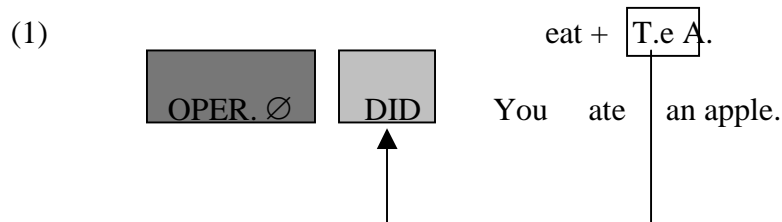
As we could work well with the morphological category of the words and with grammatical and logical analysis, I did not introduce the constituent analysis; for example I called COMPLEMENT any type of constituents which had not its origin in the subject position. This allowed me to classify the traces in three different categories. I preferred to use three different symbols rather than co-index the trace and the antecedent to give more emphasis to the type of moved element they represented. I assigned the symbol X to the trace of a subject wh-element; Y to the trace of a complement wh-element; t to the trace of that part of the verb which usually stands in INFL.

In POSITION 2 we can find:

- an AUXILIARY → the part of the verb which incorporates the inflectional elements
- a COMPLEMENTIZER → a subordinating conjunction which marks an embedded sentence of a complement type.

In the period of the school year in which I gave the classes, the students of a second form are expected to know the auxiliaries *be* and *have*, the verbal support *do* and the modal verbs *can* and *must*. We revised them together and added the missing modal verbs. More important, we pointed out that they belong to the same class with respect to V-movement.

I explained that, when we have to move a verb to POSITION 2, we must move only the part of the verb which contains the inflectional elements. The inflectional elements were summarized in the label “Tense and Agreement”. If a sentence possesses an overt auxiliary, “Tense and Agreement” are incorporated in it, so it moves leftwards in interrogative main clauses. If there is no overt auxiliary, I told the students to split the verb of the main clauses as follows: VERB = BASE FORM + TENSE AND AGREEMENT and introduce a *do*-support which brought the abstract elements with it leaving the base form behind.



Did you eat an apple?

The next step was the introduction of the DOUBLY FILLED COMP FILTER and of the restrictions about the subject movement; I presented them in terms of rules of agreement between the elements contained in the two positions at the beginning of the clause from which the wh-element starts its movement. I summed up these limitations in two rules which allowed us to restrict the number of possible combinations between an element in POSITION 1 and an element in POSITION 2, and to subject the resulting interrogative sentences to a final check about their grammaticality or ungrammaticality:

- restriction 1) → a subject cannot pass through a POSITION 2 filled with something, i.e. the two possible combinations SUBJECT/COMPLEMENTIZER and SUBJECT/AUXILIARY are not allowed. This requirement gives account of the following facts: (a) an auxiliary does not move and a do-support is not introduced in direct questions on the subject; (b) the complementizer *that* must be deleted in the long movement on the subject.

- restriction 2) → an overt complementizer must be superficially deleted when a wh-element moves in POSITION 1, i.e. the combination WH-ELEMENT/COMPLEMENTIZER is not a possible combination. This requirement gives account of the fact that the auxiliary does not move in subordinate interrogative clauses.

As the students were interested in the subject, I went into the principle of the DOUBLY FILLED COMP FILTER giving further explication and examples about its parametric variation in languages. I used some simple sentences of Italian to show that the filter is active in



our native language and some sentences of the dialect of Vicenza to show that it allows the contiguity of a wh-element and an overt complementizer.

Then I passed to the classification and subcategorization of questions. First, I divided them in two classes: CONTENT QUESTIONS and POLAR QUESTIONS, with their subcategories. Second, I started to analyse each type separately, giving a general definition and the simplified scheme which I had derived from the standard tree structure. Third, I controlled the grammaticality of the sentences at the end of the movement transformations through the two restrictions above.

1.1 Definition of each type of interrogative sentences and derivation of the simplified scheme from the standard tree structure.

### *Content questions*

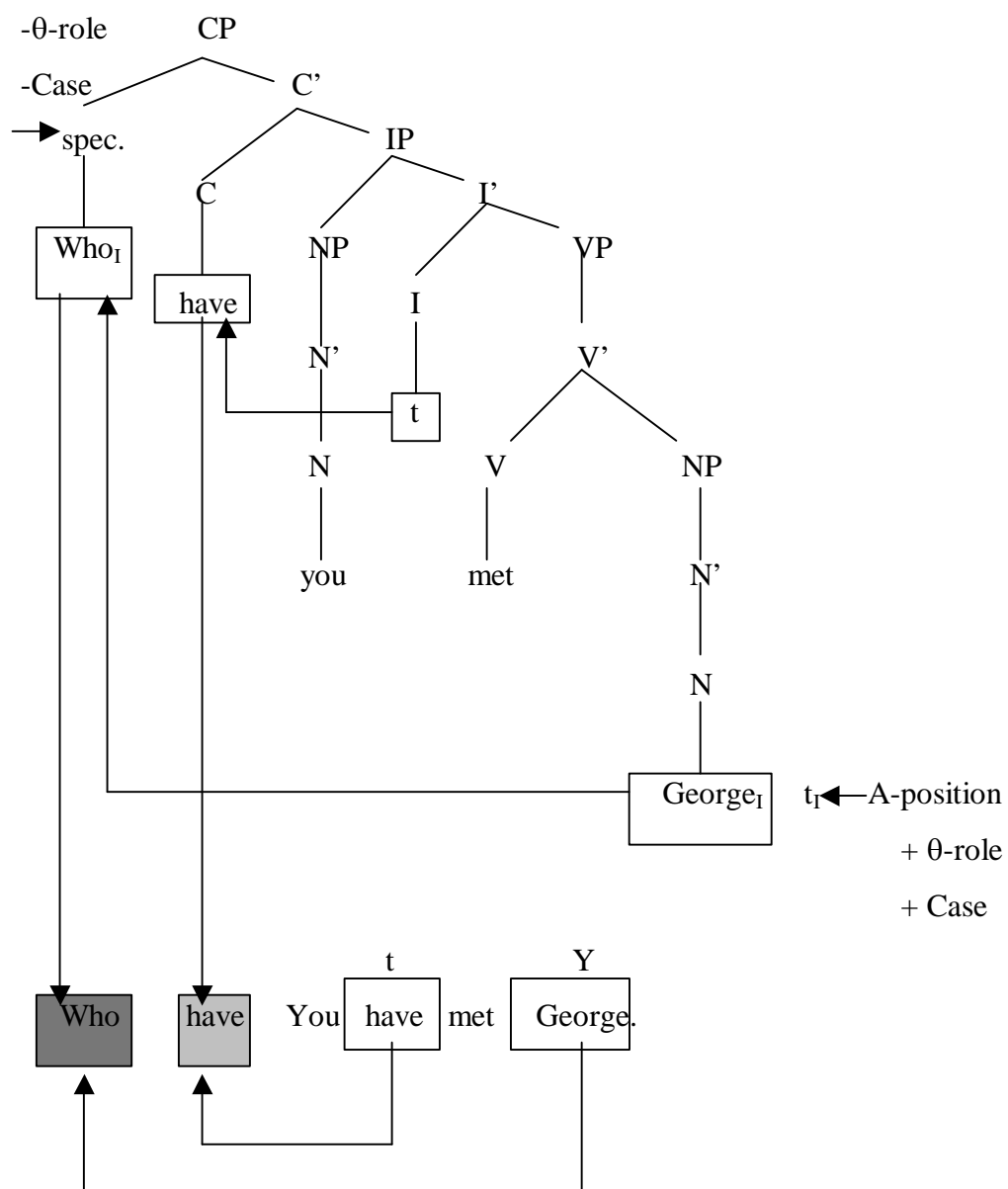
Wh-questions are formed with the insertion of interrogative wh-elements, most of which begin with *Wh-*, but including also *How*. As a rule,

- a. the wh-element, or the interrogative element containing the wh-word, comes first in the sentence
- b. the wh-word itself takes the first position in the wh-element (except for the cases in which the wh-word is within a prepositional complement).

**Fig.11** You have met [George]. [WHO]

*meet* : verb [\_\_\_ NP]

A'-position



Who have you met?

They are “open” questions, in the sense that the answer can range in a virtually unlimited list of elements corresponding to the grammatical category of the wh-element.

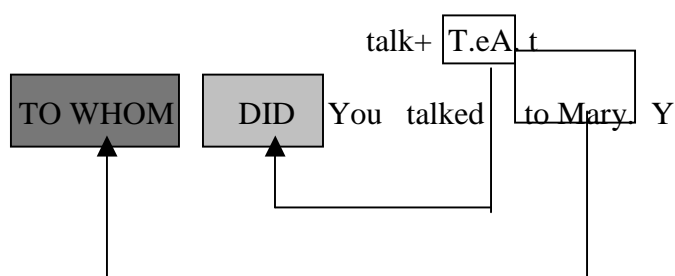
We can divide wh-questions in six subcategories:

#### 1. 1. 1 Direct questions on the complement

As we have said above, direct questions are sentences in which the interrogative element moves to the specifier of CP with only one leap (SHORT MOVEMENT), leaving a trace in its extraction site. Thus, the context excludes the presence of a complementizer in C. In direct questions on the complement, the wh-element originates in the A-position of complement, a position provided with a theta-role, assigned by the verb, and Case, assigned by the adjacent Case assigner. In **Fig.11**, the NP in position of Direct Object receives the ACCUSATIVE CASE by the verb *meet*. Then it moves directly towards the initial A'-position of specifier of CP. Only an auxiliary, that is the functional part of the verb which stands in I, can move to the head of CP. If the sentence has no auxiliary a do-support is introduced.

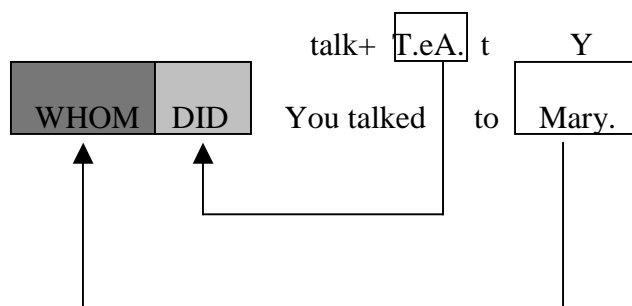
When the wh-element originates in the position of Oblique Object (the NP of a PP), English provides a choice between the two constructions of PIED-PIPING (2) and PREPOSITION STRANDING (3): in formal style the preposition precedes the complement, whereas otherwise the complement comes first and the preposition is deferred to the end of the sentence.

(2) You talked to Mary.



To whom did you talk?

(3) You talked to Mary.



Whom did you talk to?

In (3), the trace *Y* corresponds to the whole prepositional phrase, while in (4), *Y* corresponds only to the noun phrase within the prepositional constituent.

The same phenomenon occurs in all the wh-questions on the complement, that is to say also in the next two types of interrogative clauses (B. and C.).

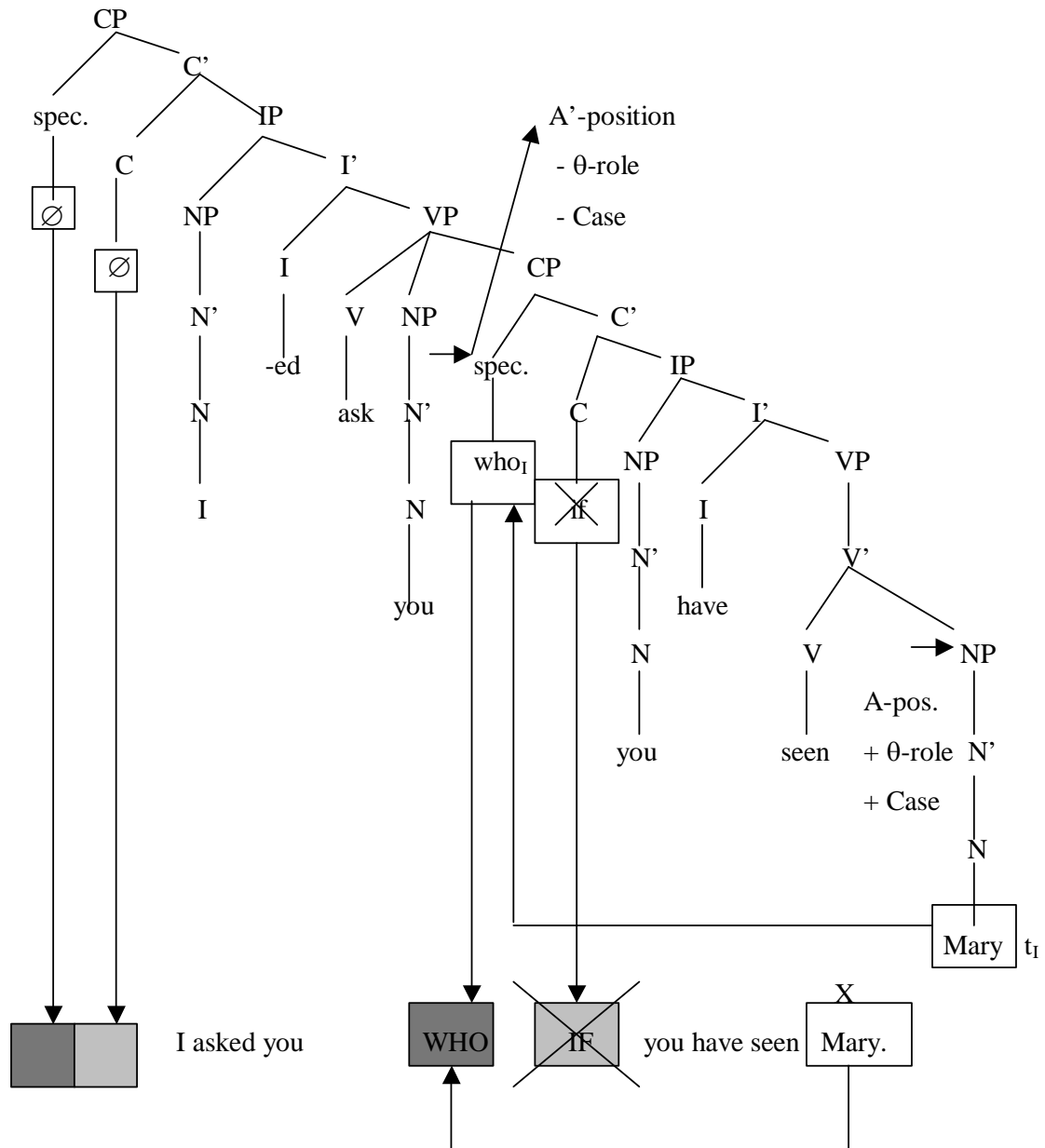
### 1. 1. 2 Indirect questions on the complement

Indirect questions are subordinate clauses usually governed by verbs of question, like *ask* and *wonder*, or by expressions of doubt, like *I*

**Fig. 12** I asked you if you have seen [Mary]. [WHO]

*ask*: verb [\_\_\_ NP, CP]

*see*: verb [\_\_\_ NP]



I asked you who you have seen.

*do not know...* In this specific type of indirect questions the wh-element moves from its original A-position of complement of the lower clause, where it is theta-marked and Case-marked, to the empty A'-position of COMP specifier of the lower clause. The movement of the verb does not occur because the position of C of the lower clause is already filled with the complementizer, even when it is not overtly realized. See **Fig.12**.

### 1. 1.3 Long movement of a wh-element on the complement

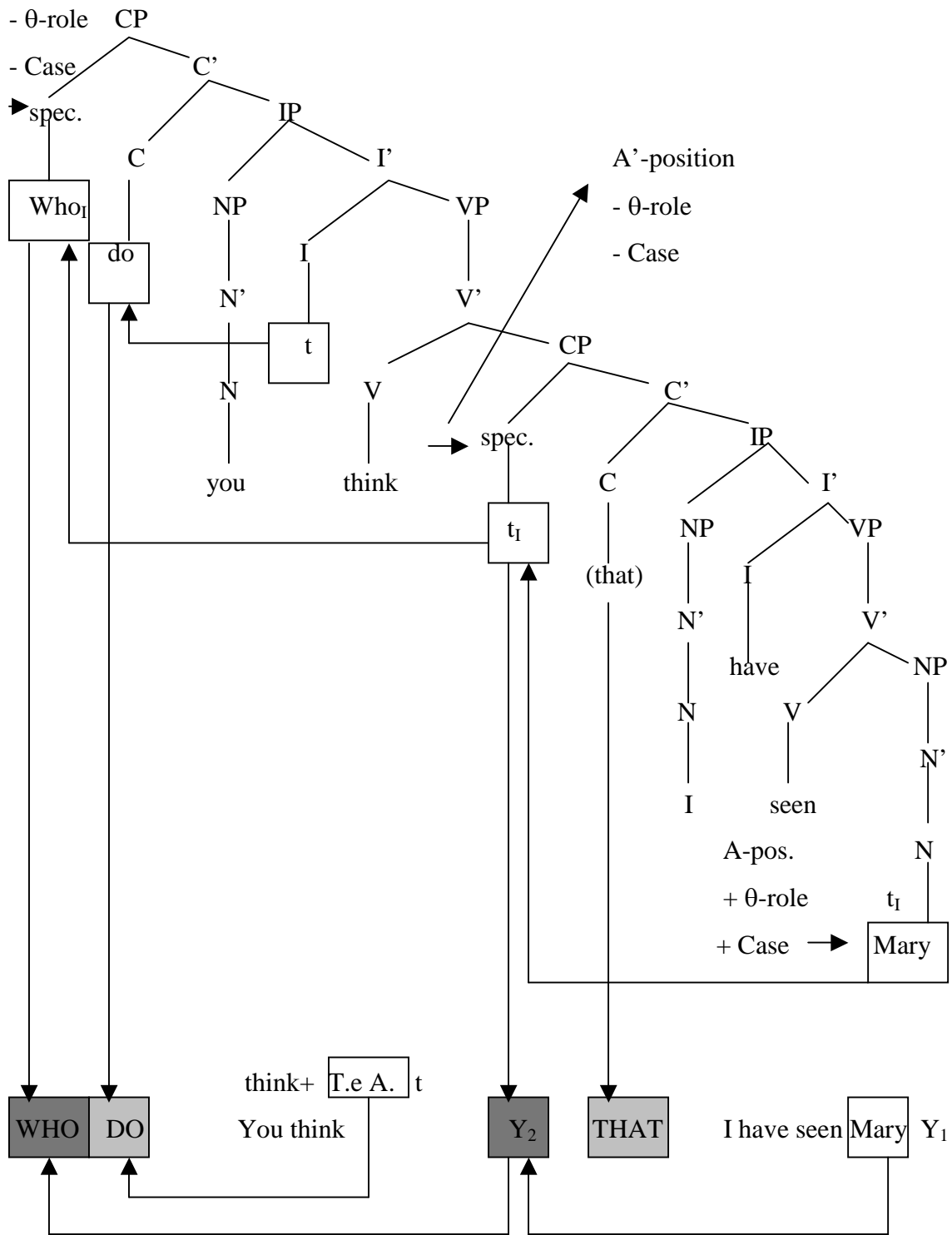
The long movement of a wh-element takes place when the interrogative wh-element has its origin in a subordinate clause (introduced by the complementizer *that*), but its scope extends to the main clause. This is possible only if the subordinate clause is a selected argument of the main verb, a bridge verb in this case. If so, the complement wh-element moves to the specifier of CP of the main clause through a two step movement: first it moves from its basic position, in which it is theta-marked and Case-marked, and reaches the specifier of CP of the subordinate clause (A'-position), then it goes up to its final landing site, the specifier of the main clause (again an A'-position). As its possible landing site is already filled with the complementizer, the verb of the subordinate clause does not move; the process of verb movement, with the consequent subject/verb inversion, occurs in the main clause.

The presence of the complementizer *that* is optional, so it makes no difference whether it is overtly realized or not. See **Fig.13**.

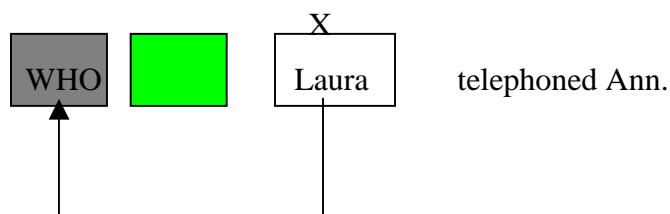
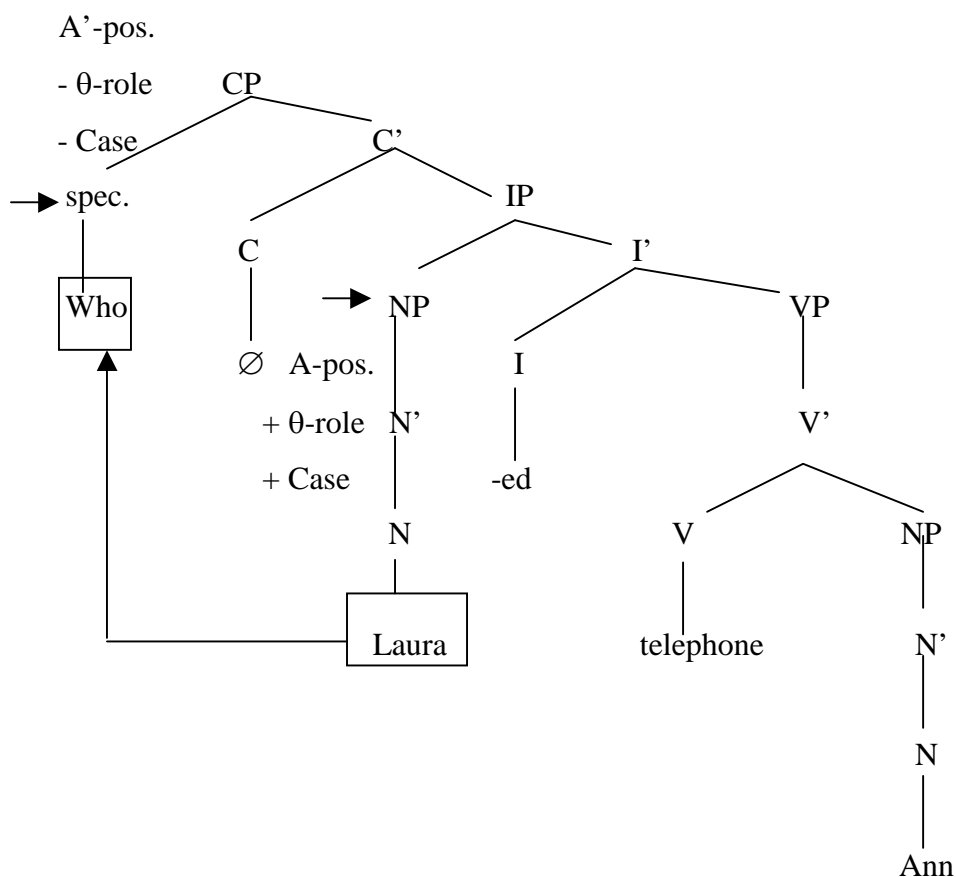
**Fig.13** You think that I have seen [Mary]. [WHO]

*think*: verb [\_\_\_ CP]

A'-pos. *see*: verb [\_\_\_ NP]



**Fig.14** [Laura] telephoned Ann. [WHO]  
*telephone*: verb [\_\_\_ NP]



Who telephoned Ann?

#### 1. 1. 4 Direct questions on the subject

Direct questions on the subject are sentences in which a wh-element is extracted from the position of subject and moved to the specifier of CP with only one leap (SHORT MOVEMENT). We cannot



observe the effects of this movement on the surface string, so we say that the subject wh-element undergoes a VACUOUS MOVEMENT. The verb remains in its basic position: if it moved, it would screen the relation between the subject and its trace and thus block the vacuous movement. As usual, the wh-element starts its movement from the position in which it is theta-marked and Case-marked and ends it in an A'-position. See **Fig. 14**.

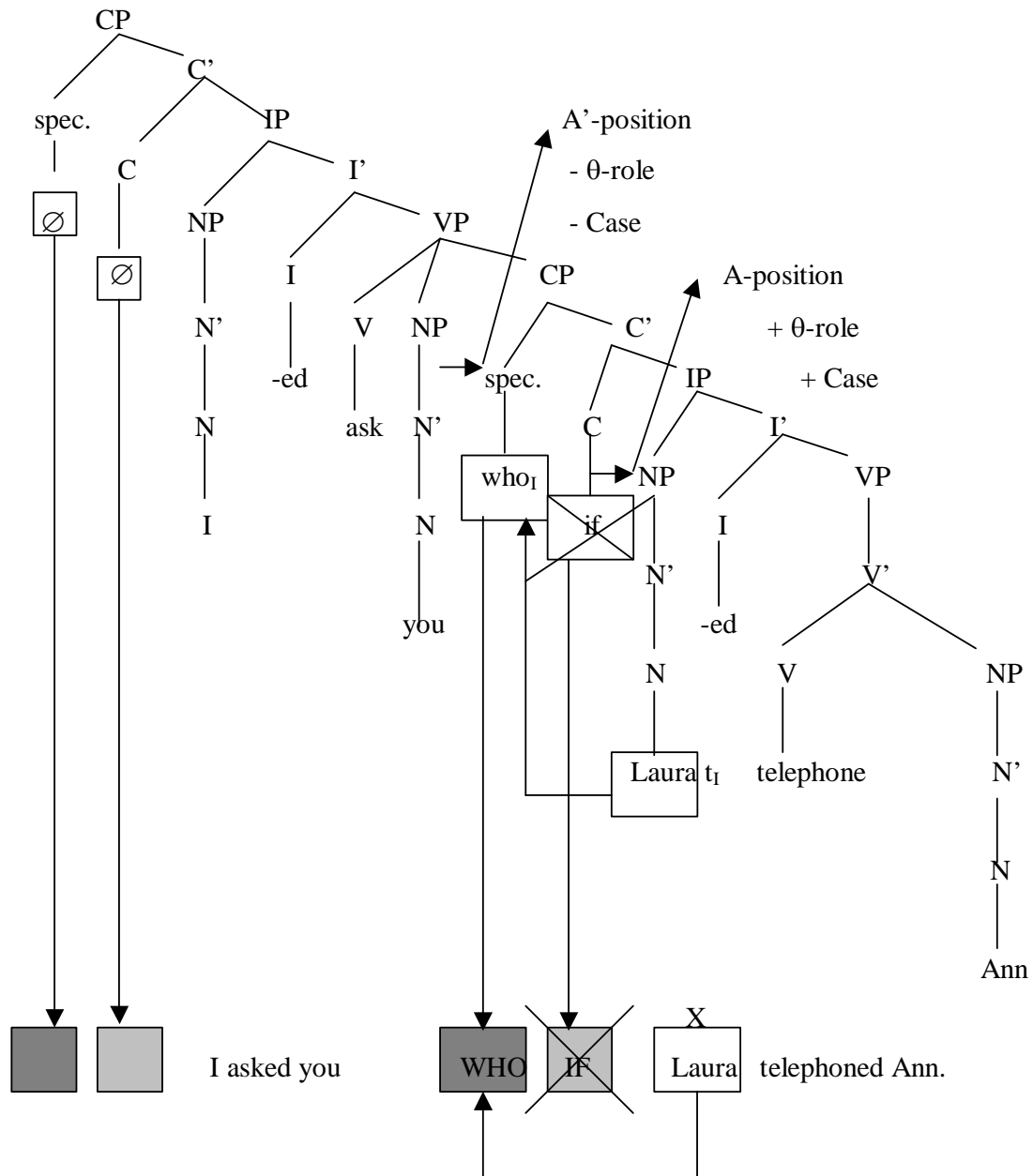
#### 1. 1. 5 Indirect questions on the subject

Indirect questions on the subject are subordinate clauses governed by verbs of question or expressions of doubt. As we can observe from **Fig.15**, their structure is very similar to the structure of indirect questions on the complement. The only difference is in the movement of the wh-element from the position of subject, a difference which becomes evident in the use of the personal interrogative pronoun and which we can find in all the questions of the same type (direct, indirect, long movement). In fact, when a subject wh-element moves to the A'-position of specifier of CP, INFL of the finite verb has already assigned it NOMINATIVE CASE, and thus only *who* and not *whom* must be used; in questions on the complement, the lexical verb assigns ACCUSATIVE CASE to the NP it governs, so we can choose between *who* or *whom*. As in all the subordinate clauses, in indirect questions on the subject, the movement of the verb of the lower clause is blocked by the “abstract presence” of the complementizer in position of head of CP.

**Fig.15** I asked you if [Laura] telephoned Ann. [WHO]

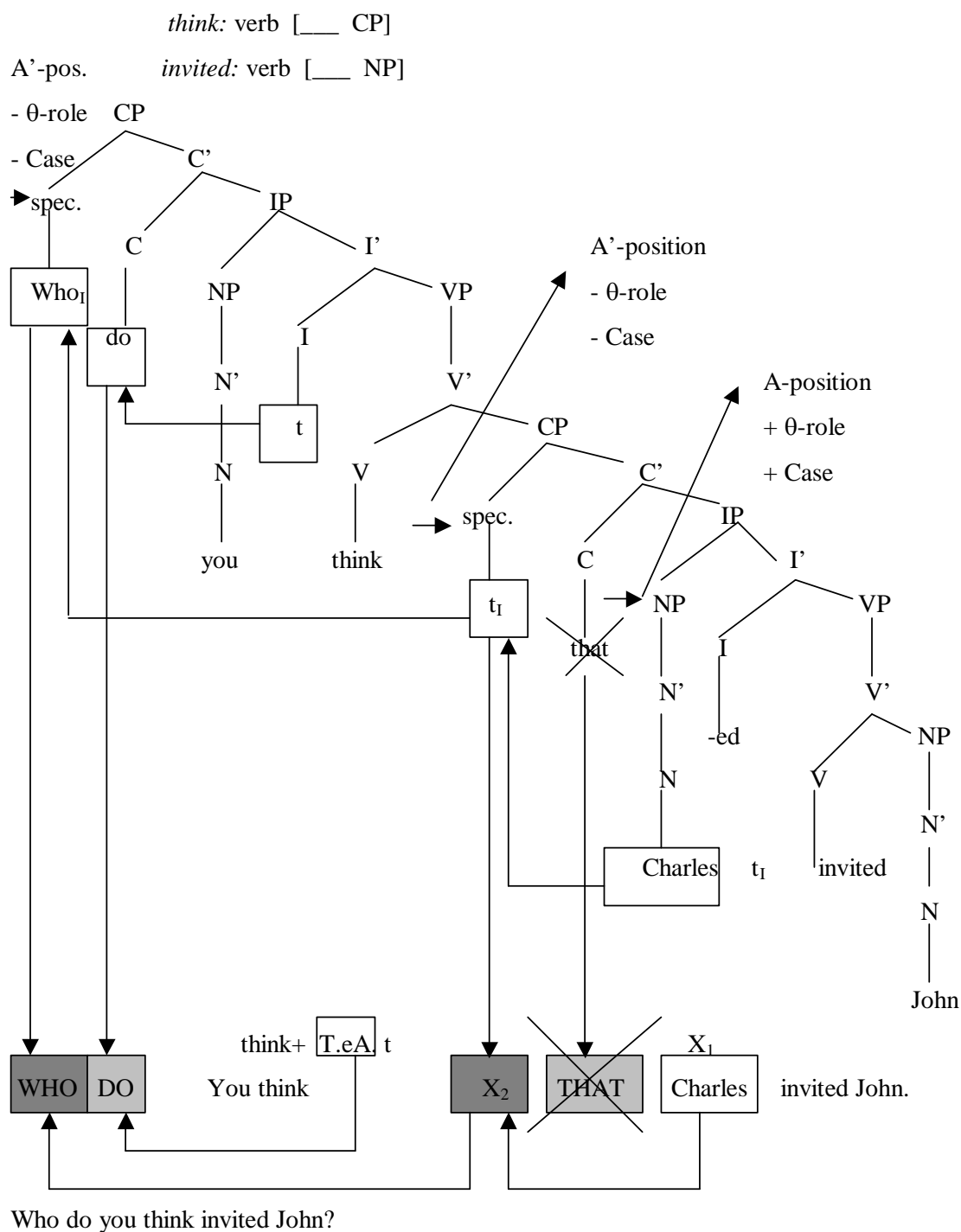
*ask*: verb [\_\_\_ NP, CP]

*telephone*: verb [\_\_\_ NP]



I ask you who telephoned Ann.

**Fig.16** You think that [Charles] invited John. [WHO]



### 1. 1. 6 Long movement of a wh-element on the subject

As in its correspondent clause on the complement, in the long movement on the subject the wh-element originates in a subordinate clause governed by a bridge verb and undergoes a two step movement. The wh-

element receives  $\theta$ -role in its basic position and NOMINATIVE CASE in its extraction site, the A-position of subject of the subordinate clause, and moves first to the A'-position of the specifier of the lower clause, and then to the A'-position of specifier of the main clause. When a subject moves, the first step of its movement is affected by some further restrictions. The auxiliary of the secondary clause does not move to C: although C is not filled with an overt complementizer, it is occupied by features marking the subordination. In fact, both the complementizer and the verb are excluded from this position by a unique cause: they would screen the relation between the subject and its trace. The second step of movement takes place out of the clause in which the wh-element is theta-marked and Case-marked. See **Fig. 16**.

### **Polar questions**

Polar questions are “closed” questions, in the sense that they allow only the answers *Yes* or *No*, on the two poles of affirmation and negation. They do not present relevant differences with respect to content questions, except for the absence of a wh-element. In the position of specifier, we can hypothesize an abstract EMPTY ( $\emptyset$ ) OPERATOR which gives us the information about the type of clause which follows it and attracts the auxiliary moving it to the head of CP, if the clause is a main interrogative clause.

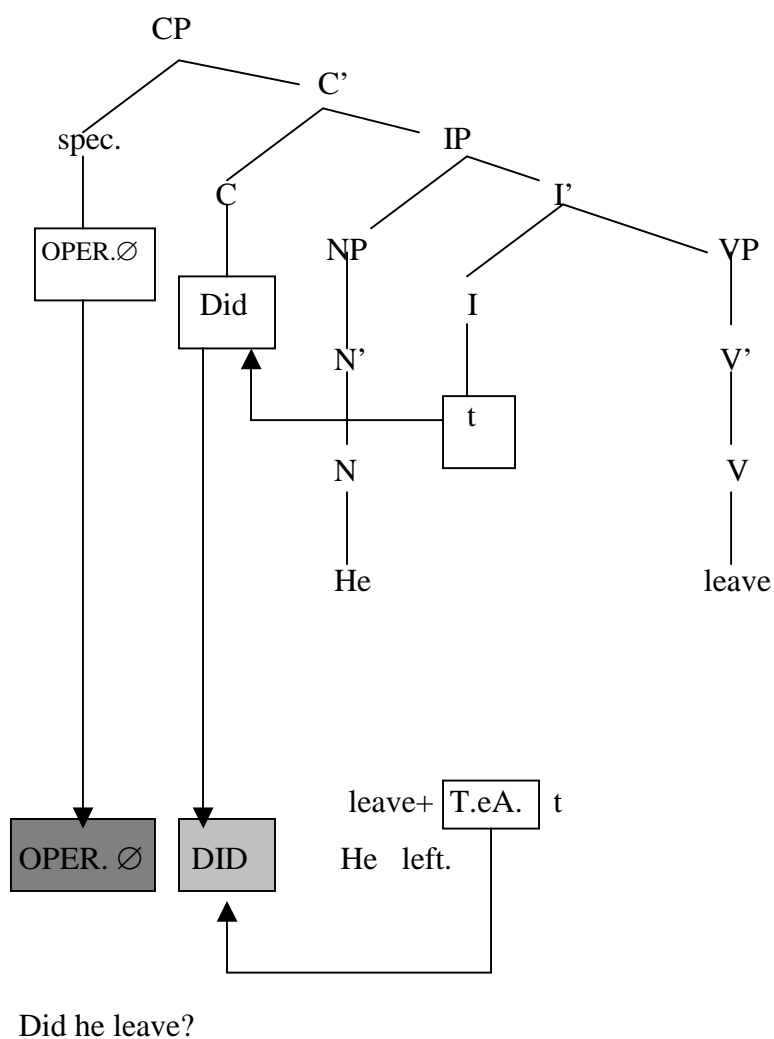
We can divide polar questions in three subcategories:

### 1. 1. 7 Direct questions

Direct polar questions are main sentences only affected by the head-to-head movement of the auxiliary from I to the head of CP. When there is no overt auxiliary, a do-support is introduced. See **Fig. 17**.

**Fig.17** He left. YES/NO

*leave:* [\_\_\_\_\_]



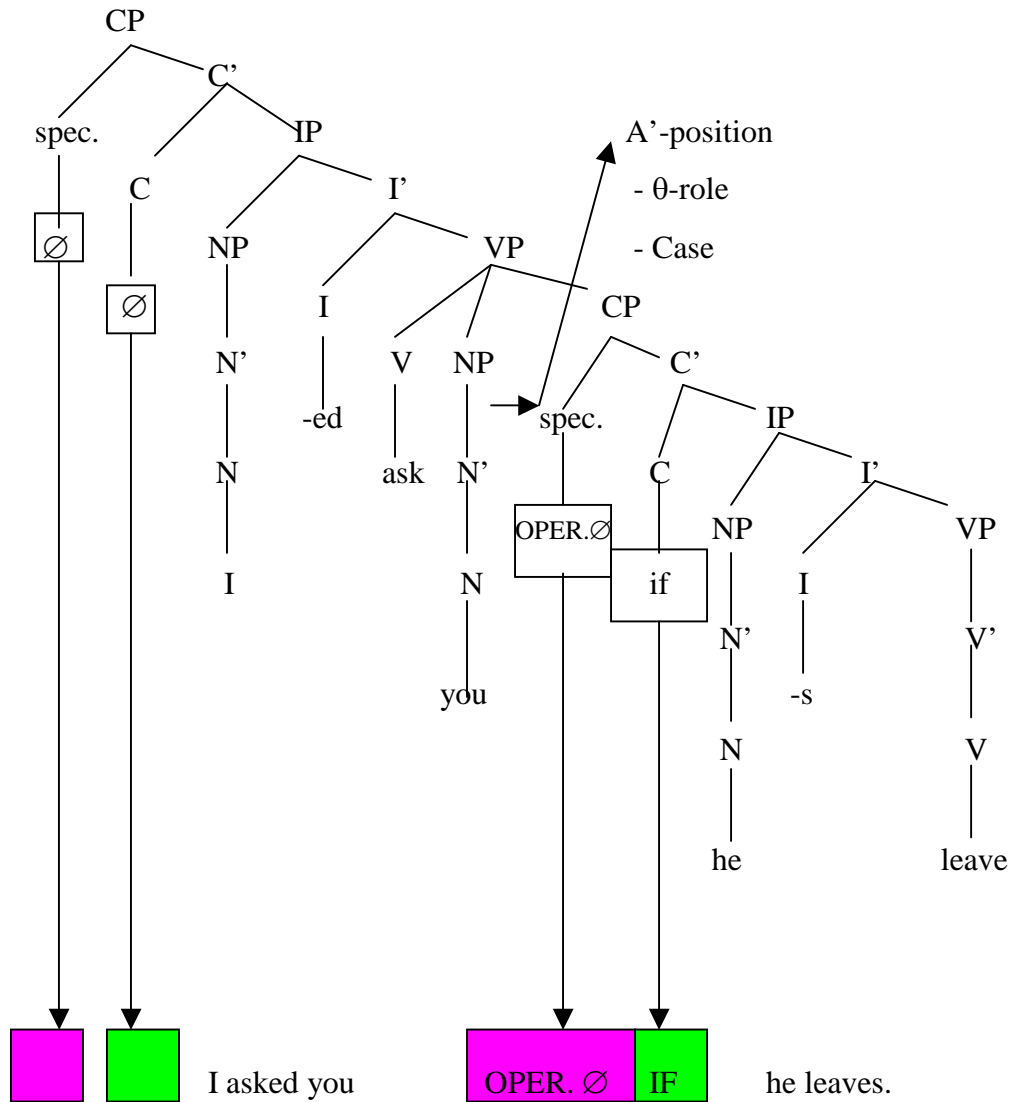
**Fig.18**

I asked you if he leaves.

YES/NO

*ask*: verb [\_\_\_ CP]

*leave*: verb [\_\_\_\_\_]



I asked you if he leaves.

### 1. 1. 8 Indirect questions

Indirect polar questions are interrogative subordinate clauses governed by a verb of question or an expression of doubt in which the position of specifier of the lower CP is occupied by the EMPTY

OPERATOR and the position of head of CP is filled with the complementizer *if*. As there is no wh-element, the DOUBLY FILLED COMP FILTER cannot be violated, so the complementizer is in no case prohibited, but optional.

In any case, an overt complementizer does not allow the  $\emptyset$  OPERATOR to attract the verb to the position of C. Thus, D-structure and S-structure roughly correspond. See **Fig.18**.

#### 1. 1. 9 Movement of the empty operator

When a bridge verb governs a subordinate clause introduced by the complementizer *that* whose POSITION 1 is filled with an interrogative operator, the EMPTY OPERATOR moves from the specifier position of the secondary clause to the specifier position of the main clause. As always occurs with bridge verbs, the auxiliary of the main clause reaches the position of C of the main clause, whereas the auxiliary of the interrogative dependent clause does not move at all, as is always the case with dependent interrogative clauses. See **Fig.19**.

With the classification of the interrogative clauses, the grammatical explanation was nearly concluded. I wanted only to add a brief account of a phenomenon related to the concept of trace, to give the students a demonstration that traces actually occupy the positions left “empty” by moved elements and take part in syntactic processes. To do that, I illustrated the phenomenon of the contraction of *want+to*→*wanna* in colloquial English (see p. 105).

**Fig.19**

You think that he has left.

YES/NO

*think*: verb [\_\_\_ CP]

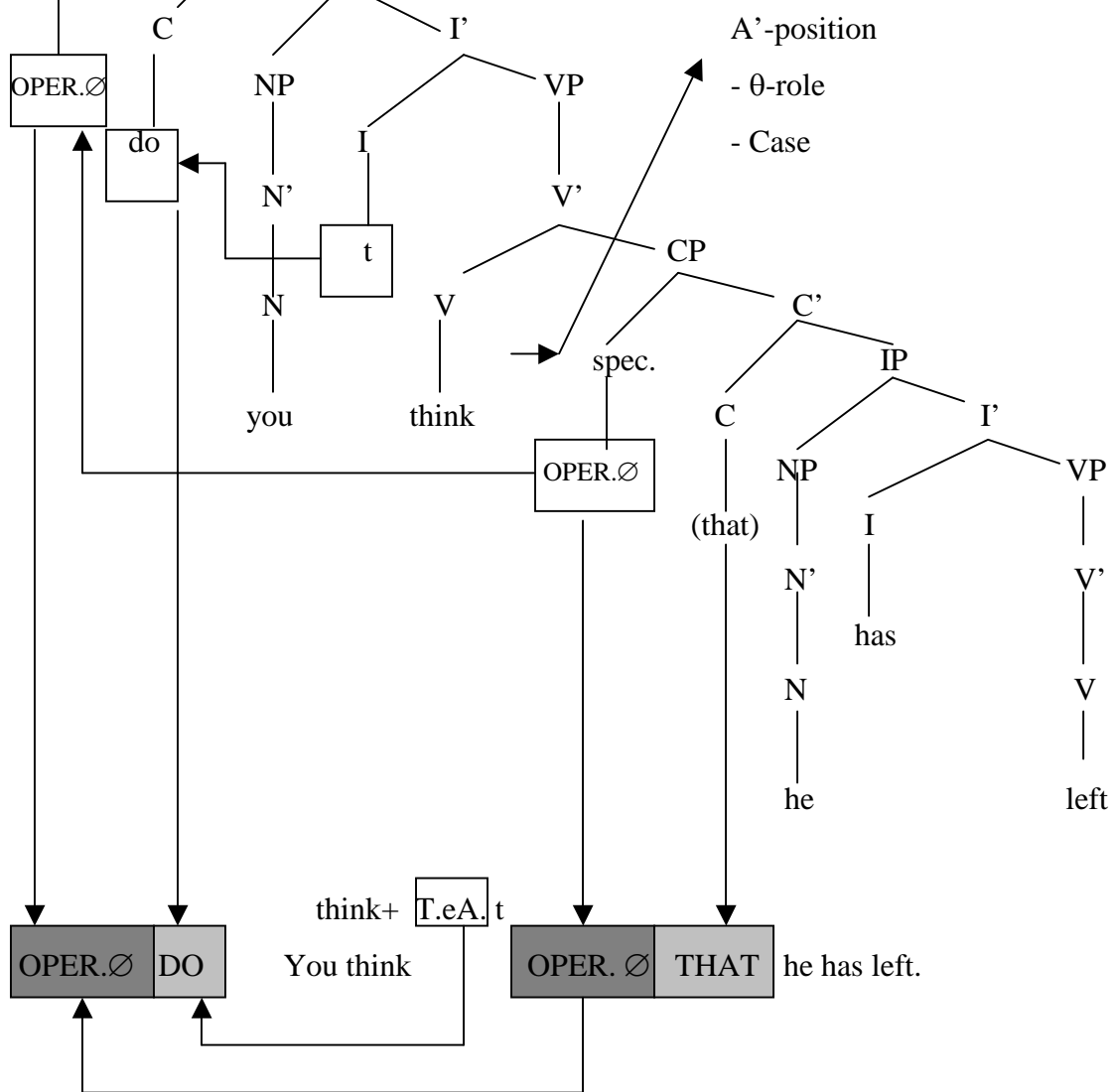
*leave*: verb [\_\_\_\_\_]

A'-pos.

-  $\theta$ -role CP

- Case

spec.



Do you think (that) he has left?



After each class I usually gave some homework which I corrected at the beginning of the following class. Furthermore, in the last two classes, we did group exercises at the blackboard. I had little time left, but I tried to explain the students how they would have to translate directly keeping in mind the visual system. I told them that it was evident they could not use coloured rectangles each time they had to translate a sentence, but that the method was only the first step which would have allowed them to get a good rational learning of the mechanisms of question formation.

Let us consider the two intermediate passages between the visual method and the direct translation:

1) the student is given an Italian interrogative sentence to translate

a. Dove pensi che io sia stato ieri?

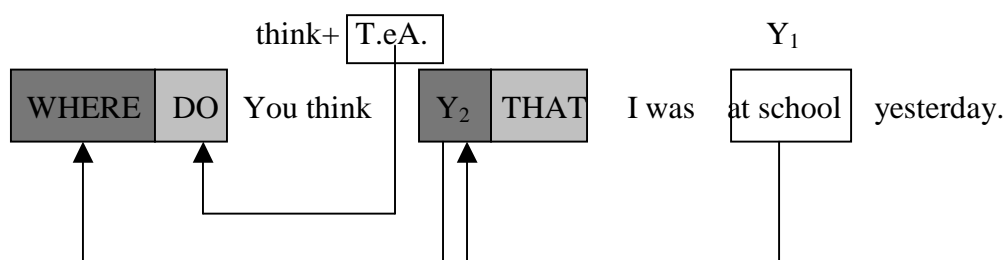
The first step consists in recognizing the affirmative structure of the sentence before the movement and introducing in the extraction site of the moved element a phrase corresponding in meaning to the semantics of that specific wh-element.

b. Tu pensi che io ieri sia stato dove.

c. Tu pensi che io ieri sia stato a scuola.

Then the affirmative sentence can be translated and the visual method can be applied.

d. You think that I was [at school] yesterday. [WHERE]



Where do you think (that) I was yesterday?

2) again the student is given an Italian interrogative sentence to translate:

e. Quando hai detto che andrai in Inghilterra?

The second passage consists in analyzing the sentence and thinking about the elements which fill the positions of that type of sentence. Sentence (e.) is a content question which contains a *that* clause governed by a bridge verb. It follows that we have two positions at the beginning of the main clause and two positions at the beginning of the subordinate clause. MAIN CLAUSE: in POSITION 1 there is a wh-element → WHERE; in POSITION 2 an auxiliary. In (e.) there is no overt auxiliary, so we have to introduce a *do*-support which incorporates the inflectional elements of *pensi* (past; second person) → DID.

SUBORDINATE CLAUSE: in POSITION 1 we can find the trace of the moved element ( $Y_2$ ) → NO LEXICAL ITEM; whereas POSITION 2 is filled with the overt complementizer. As the moved element is a complement, we can choose whether to delete it or not → (THAT).

Then, the sentence can be easily translated.

f. When did you say (that) you are going to England?

The sixth class was completely devoted to the test. The test was composed by two parts and was structured as follows:

- the first part contained eleven English affirmative sentences with the indication of the phrase to move and of the corresponding wh-element. First, the students had to decide the class, the subcategory of the questions and the grammatical function of the evidenced phrase (subject or complement). Then, they had to apply the appropriate scheme according to their previous choice. Finally, they had to report the resulting question.

In this way I could understand if a possible mistake was due to some doubts arisen by the method itself or rather to low grammatical ability, little attitude, scarce diligence in the homework and so on;

- the second part required a direct translation of five interrogative sentences. I did not give any instruction or restriction on the method: the students could try to translate immediately or to apply the scheme by inserting the wh-element or a corresponding phrase in the initial extraction site.

## **2. 3<sup>rd</sup> B and 4<sup>th</sup> C test**

In the same period in which I led the experiment in 2<sup>nd</sup> B, I asked the teacher if I could test the level of ability in building interrogative structures in a third and fourth form. In this way, I could have an idea of how the traditional method worked, an evaluation of the ‘initial state’ of

the students, so that and a comparison between the results obtained by the different methods could be (relatively)possible.

Then, I gave the following test to the 3<sup>rd</sup> B and to the 4<sup>th</sup> C of the same school:

*TRADUCI IN INGLESE LE SEGUENTI FRASI:*

- 1) Con chi hai parlato ieri?
- 2) Pensi che passerai l'esame?
- 3) Ti chiedo chi telefonò ad Anna.
- 4) Chi pensi che io abbia visto ieri?
- 5) Di che cosa stavi parlando quando ti ho visto?
- 6) Ti chiedo se Mary parte.
- 7) Come credi che finirà la partita?
- 8) Chi è venuto al cinema con te ieri sera?
- 9) Chi pensi che abbia invitato John? (Qualcuno ha invitato John)
- 10) Ti chiedo chi hai visto stamattina.
- 11) A chi l'insegnante suggerì che studiasse la lezione di nuovo?
- 12) Mary è andata dal dentista questa settimana?
- 13) Chi ha telefonato ad Anna?
- 14) Bob mi chiese di chi era la penna.
- 15) Posso invitare John alla festa di sabato?
- 16) Hai detto alla mamma che andrai in Spagna?
- 17) L'insegnante chiese ai ragazzi chi conosceva la risposta.
- 18) Dove hai detto che era la tua penna?
- 19) Mi chiedo se le piace il regalo che le ho fatto.
- 20) Come andrai a Glasgow?

- 21) Mary mi chiede chi ha lavato la sua automobile.
- 22) Chi stava parlando con te cinque minuti fa?
- 23) Mia madre mi chiese se avevo fatto i lavori domestici.
- 24) Che automobile pensi che sia mia?
- 25) Ti chiedo perché sei così stanco.
- 26) Tuo fratello sa guidare l'automobile?
- 27) Credi che pioverà?

The students had an hour to complete the test and could ask me the translation of the words they did not know. They all finished in time, some of them even early.

### III. THE EXPERIMENT

#### 1. First class

Monday, 22<sup>nd</sup> November 1999

Quello che voglio dimostrare è che da una frase dichiarativa attiva, attraverso dei movimenti di alcuni elementi, si possono ottenere tutti i tipi di frase interrogativa attiva che ci interessano.

Partiamo dal presupposto che all'inizio di ogni frase, sia principale che subordinata, esistano due posizioni che verranno riempite o lasciate vuote a seconda del tipo di frase con cui avremo a che fare.

Ex.:

POSIZIONE 1

POSIZIONE 2

The cat eats the mouse.

Nella frase dichiarativa attiva le due posizioni sono vuote perchè è la forma di base, quella che afferma qualche cosa senza mettere enfasi o altre distinzioni sui diversi elementi.

Queste due posizioni sono diverse e sono destinate a tipi diversi di elementi della lingua; esse non si possono mai scambiare di posto in quanto appunto devono contenere elementi diversi; entrambe però possono essere riempite da un solo elemento alla volta, tenendo presente che “elemento” non significa necessariamente una sola parola, ma anche un gruppo di parole o SINTAGMA (ad esempio un elemento interrogativo può essere composto da più parole). Inoltre, dobbiamo supporre che siano sempre presenti anche se sono completamente vuote.

La POSIZIONE 1 può contenere:

- un elemento wh-;
- un operatore vuoto ( $\emptyset$ );
- una traccia.

Un ELEMENTO WH- è un qualsiasi elemento interrogativo (aggettivo o pronome): sappiamo infatti che la maggior parte degli interrogativi in Inglese iniziano per wh-, anche se non tutti, ad esempio “how” no.

Gli ELEMENTI WH- sono:

- WHERE interrogativo di **luogo**

Es.: Where have you been this summer?

- WHEN interrogativo di **tempo**

Es.: When did you go to Rome?

- WHAT interrogativo di **qualità**

a) WHAT da solo o WHAT+SOSTANTIVO può essere usato sia con riferimento non personale col significato di “che genere di...”

Es.: What is that book? o What book is that?;

sia con riferimento personale con professioni, religioni, modi di vivere, ...

Es.: What is Mr Brown? Is he a doctor?

b) WHAT+TIME nell’ espressione per chiedere l’ora

Es.: What time is it? o What is the time?

c) WHAT+ SORT OF/ KIND OF/ TYPE OF

Es.: What sort of car have you got?

d) WHAT+ COLOUR

Es.: What colour is your dress?

- **WHICH** o **WHICH+ altro** interrogativo di **qualità**

Ha riferimento sia animato che inanimato. Mentre **WHAT** è una parola di identificazione generale, **WHICH** si riferisce ad una scelta precisa. Quindi quando diciamo “What films have you seen?” intendiamo “Che genere di film hai visto?”; mentre quando diciamo “Which films have you seen?” intendiamo “Quali film hai visto?” ad esempio tra tutti quelli del 1998, cioè richiediamo la scelta da un insieme definito esplicitamente o dal contesto.

- **WHO** pronome interrogativo di **persona**

Es.: Who is your best friend?

**WHOM** è la forma accusativa di **WHO**; **WHOM** è considerato dai parlanti piuttosto formale, perciò viene usato indifferentemente anche **WHO** in posizione di Oggetto Diretto; è obbligatorio invece quando il pronome si trova in posizione di Oggetto di Preposizione.

Es.: With whom did you talk yesterday?

- **WHOSE** interrogativo **genitivo di persona** (=di chi...?)

Es.: Whose is that book? o Whose book is that?

- **HOW** interrogativo di

a) **modo o maniera**

Es.: How are you?

How does he travel? He travels by train.

b) **qualità** → **HOW+ AGGETTIVI E AVVERBI**

Ex.: How much is it?



How far is it?

- WHY interrogativo di **causa**

Ex.: Why are you here?

Il suo corrispondente nelle frasi dichiarative è *because* (*perché* esplicativo).

Un OPERATORE  $\emptyset$  è un elemento non foneticamente realizzato (cioè che non si pronuncia) con la sola funzione di dirci che tipo di frase è quella che lo segue. Anche se non si pronuncia, produce degli effetti visibili.

Una TRACCIA è un elemento non foneticamente realizzato che rimane nella posizione di partenza dell' elemento corrispondente che ha subito un movimento. Chiameremo

X la traccia di SOGGETTO;

Y la traccia di COMPLEMENTO o AVVERBIO;

t la traccia di VERBO o di una PARTE DI VERBO.

## 2. Second class




Tuesday, 23<sup>rd</sup> November 1999

Nella POSIZIONE 2 possiamo trovare :

- i COMPLEMENTATORI
- gli AUSILIARI

I COMPLEMENTATORI sono quegli elementi del discorso che hanno la funzione di introdurre le frasi subordinate, ad esempio THAT e IF. Nella frase subordinata esplicita quindi la POSIZIONE 2 è riempita dal complementatore.

Es.:

  He said   that you were here.

Gli AUSILIARI sono la parte di verbo che porta le funzioni TEMPO e ACCORDO. Dobbiamo infatti considerare il VERBO come costituito dalla FORMA BASE + TEMPO e ACCORDO.

Es.: Partiamo= part- + indicativo presente + 1<sup>a</sup> persona plurale

Drinks= drink + presente + 3<sup>a</sup> persona singolare

Talked= talk + passato + tutte le persone; a quale persona si riferisca la forma verbale in inglese ci viene detto dal soggetto obbligatorio.

Gli ausiliari sono quei verbi che possiedono le cosiddette NICE PROPERTIES:

A) sono spostati in posizione iniziale (POSIZIONE 2 ) per formare le domande;

B) costruiscono la forma negativa aggiungendo *not* a destra;

C) possono apparire nelle “domande coda”;

D) funzionano come eco del predicato

es.: Mark washed his car and so did John.

E) sono luogo di accento grammaticale. L'accento sull'ausiliare indica l'insistenza sulla verità dell'intera frase.

Sono AUSILIARI quindi:

- BE ed HAVE;
- DO che può svolgere la funzione di supporto verbale semanticamente vuoto (cioè non porta nessun significato

lessicale, ma solo le funzioni TEMPO e ACCORDO) con il compito di costruire la forma negativa e interrogativa in assenza di altri ausiliari;

- i MODALI che sono la realizzazione grammaticale degli atteggiamenti e delle opinioni del parlante verso la verità (dalla possibilità alla necessità) della frase e del controllo umano sugli eventi (dall'obbligo al permesso).

Si dividono in due gruppi:

- 1) CAN          MAY          SHALL          WILL  
                COULD      MIGHT      SHOULD      WOULD

Questo gruppo è caratterizzato dal fatto che i verbi da cui è costituito hanno la forma per il presente e quella per il passato, anche se non è proprio così, in quanto il significato del “modale al passato” non è esattamente corrispondente a quello del “modale al presente volto al passato”.

- 2) MUST   NEED   OUGHT TO   DARE

Il secondo gruppo invece contiene verbi che non hanno forme parallele per il passato.

I modali hanno tre caratteristiche che li distinguono dagli altri ausiliari:

- a. la terza persona singolare del presente indicativo non prende il suffisso –s

es.    \*cans

- b. non sono possibili forme non finite

es.    \*to can      \*musting

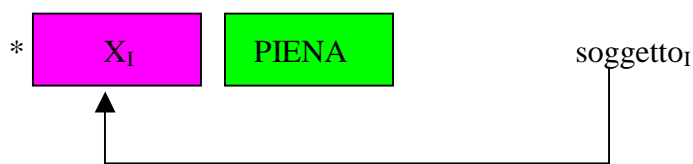
c. non è permessa la cooccorrenza con altri modali (in inglese standard)

es. si può dire “ I can have...”, ma non “ I can must...”

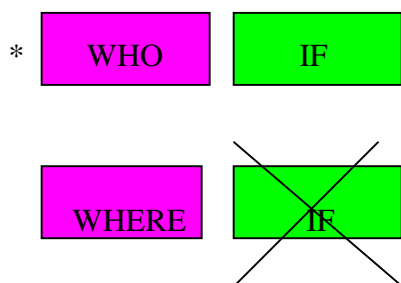
- QUASI MODALI. Anche se non hanno tutte le caratteristiche formali dei modali hanno alcune relazioni semantiche con essi e forniscono loro le forme suppletive o alternative nei casi in cui i modali (alcuni modali) sono difettivi. I più importanti sono HAVE TO e BE ABLE TO che suppliscono le forme non finite e i tempi mancanti e permettono la cooccorrenza di modali nei verbi difettivi MUST e CAN rispettivamente.

Con ciò abbiamo terminato per quanto riguarda il contenuto delle due posizioni vuote. A questo punto ci possiamo chiedere se ogni elemento contenuto nella POSIZIONE 1 può “andare d’accordo” con ogni elemento contenuto nella POSIZIONE 2, vale a dire se sono possibili tutte le combinazioni di elementi. La risposta varia da lingua a lingua. In Inglese Standard ci sono due restrizioni fondamentali in questo senso che devono essere applicate solo alla frase in cui è inserito (cioè da cui parte) l’elemento wh- e le posizioni all’inizio di essa.

- 1) Non troviamo mai un elemento wh-soggetto nella POSIZIONE 1 se la POSIZIONE 2 è riempita con qualsiasi elemento; questo significa che il soggetto non può mai muoversi se trova come ostacolo una POSIZIONE 2 piena.



2) Non possiamo mai avere questa combinazione: WH-ELEMENT nella POSIZIONE 1/ COMPLEMENTATORE nella POSIZIONE 2. Se si presenta questa situazione si applica la “CANCELLAZIONE SUPERFICIALE DEL COMPLEMENTATORE”: il complementatore viene “cancellato” cioè non viene né scritto, né pronunciato, ma rimane simbolicamente nella sua posizione per indicare che quella che segue è una subordinata. Come conseguenza ovvia, nessun altro elemento potrà essere spostato in una POSIZIONE 2 che precede una subordinata; quindi l’ ausiliare di una subordinata non si muove.



*Esempio per dimostrare che la cancellazione superficiale del complementatore contiguo ad un elemento wh- è un tratto dell’Inglese Standard e di altre lingue, ma non di tutte le lingue, ovvero non è una caratteristica universale.*

Diamo un’ ulteriore occhiata alla restrizione 2). Abbiamo visto che l’Inglese Standard non permette la contiguità tra elemento wh- e complementatore e che quando questo caso si verifica dobbiamo operare

la cancellazione superficiale del complementatore; superficiale in quanto non lo scriviamo e non lo pronunciamo, ma esso rimane in POSIZIONE 2 come indicatore di subordinata. Abbiamo detto anche che alcune lingue (come l'Inglese) escludono la presenza degli introduttori, mentre altre la ammettono. Per verificare la verità di questi enunciati proviamo a trovare:

- 1) almeno un'altra lingua in cui avvenga la cancellazione superficiale del complementatore; e
- 2) almeno una lingua in cui essa non avvenga e in cui sia normale la contiguità tra elemento wh- e complementatore.

Per quanto riguarda il caso 1) possiamo osservare quello che succede in Italiano.

Sono possibili in italiano standard le frasi seguenti?

- a. \* “So chi che è venuto a trovarti ”
- b. \* “Abbiamo visto con chi che hai parlato”

No, le frasi risultano agrammaticali, perciò concludiamo che anche l'Italiano si comporta come l'Inglese e prevede la cancellazione superficiale del complementatore. Le forme grammaticali corrispondenti sono:

- c. “So chi è venuto a trovarti”
- d. “Abbiamo visto con chi hai parlato”

Tuttavia le espressioni a. e b. vengono usate in Italiano trascurato e lo stesso accade in Inglese con le loro corrispondenti. Il fatto che in Italiano e Inglese trascurato si utilizzino espressioni agrammaticali con

il complementatore realizzato foneticamente accanto ad un elemento wh- è un indizio ulteriore della sua presenza nella struttura profonda.

In italiano, possiamo riconoscere l'influsso delle varietà dialettali.

Per quanto riguarda il caso 2) prendiamo come esempio il dialetto veneto (vicentino).

Sono possibili in dialetto le frasi seguenti?

e. "So chi che xe vegnù a trovarte"

f. "Ghemo visto con chi che te ghe parlà"

Sì, perciò il dialetto veneto è una lingua che non applica la cancellazione superficiale del complementatore; è molto probabile che per influsso di questa lingua questa possibilità entri nell'italiano parlato regionale.

Tenendo sempre ben presenti le due restrizioni dell'Inglese passiamo ora alla classificazione delle frasi interrogative. Ne conosciamo 2 classi:

**1) *CONTENT QUESTIONS o DOMANDE WH-:*** sono domande "aperte" nel senso che la risposta non ha limiti entro la sfera di significato dell'elemento wh-. Divideremo le domande wh- in sei sottoclassi:

- A. dirette sul complemento
- B. indirette sul complemento
- C. con il movimento lungo di wh- sul complemento
- D. dirette sul soggetto
- E. indirette sul soggetto
- F. con il movimento lungo di wh- sul soggetto

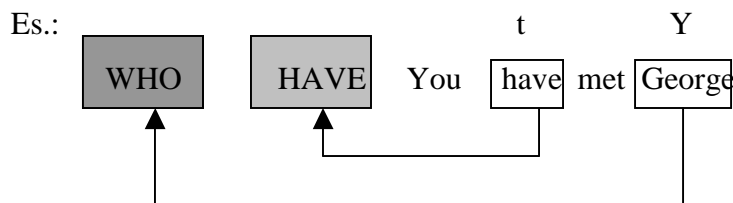
**2)POLAR QUESTIONS o DOMANDE TOTALI:** sono domande “chiuse” nel senso che permettono solo le risposte SI’ o NO. Le POLAR QUESTIONS si dividono in tre sottoclassi:

- G. dirette
- H. indirette
- I. con il movimento di operatore  $\emptyset$

## **-1- CONTENT QUESTIONS**

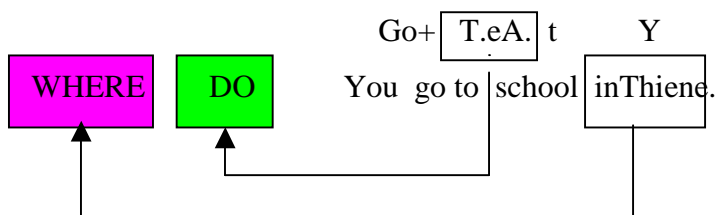
### **A. Dirette sul complemento**

Sono il tipo più semplice di domande contenuto: con esse si chiede direttamente quello che si vuole sapere. Si tratta di proposizioni principali in cui la POSIZIONE 1 viene riempita da un elemento wh- attraverso uno spostamento dalla posizione iniziale di COMPLEMENTO della dichiarativa dove rimane una traccia Y. Nella POSIZIONE 2 si sposta l’ ausiliare che porta i tratti Tempo e Accordo; se questo non c’è viene introdotto DO con la stessa funzione.



Who have you met?

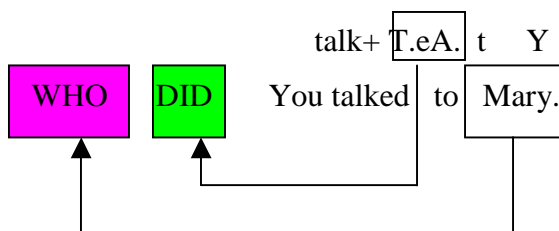




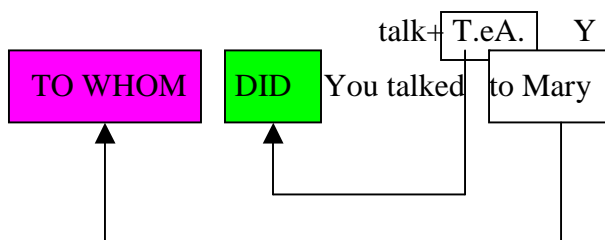
Where do you go to school?

Quando la parola o il sintagma corrispondente all'elemento wh- è preceduta da una preposizione, di solito l'Inglese non sposta la preposizione, ma solo il suo oggetto. Lo spostamento della preposizione insieme al suo oggetto all'inizio della frase è comunque sempre possibile e la frase che ne risulta grammaticale.

Es.:



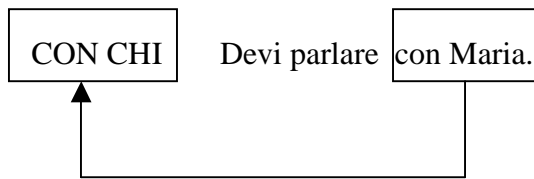
Who did you talk to?



To whom did you talk?

Al contrario l'Italiano sposta sempre all'inizio anche la preposizione.

Es.:

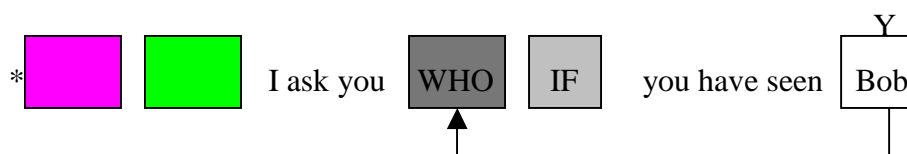


Riprendiamo ora le due restrizioni dell'inglese standard e vediamo se creano problemi. La numero 1) non ci interessa perché non abbiamo uno spostamento del soggetto. Nemmeno la numero 2) ci interessa perché le interrogative dirette sono proposizioni principali, pertanto non abbiamo mai un complementatore in POSIZIONE 2; la combinazione ELEMENTO WH-/ AUSILIARE è una combinazione possibile (anzi, obbligatoria).

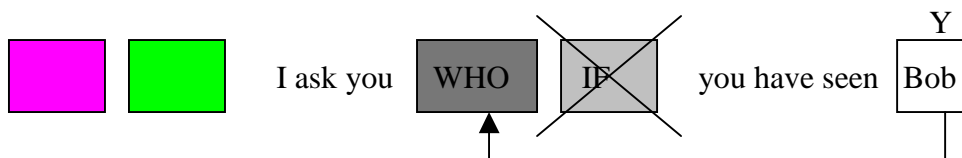
#### **B. Indirette sul complemento**

Sono interrogative dipendenti rette in genere da un verbo di domanda. Come nelle interrogative dirette il complemento si sposta dalla sua posizione iniziale alla POSIZIONE 1 della subordinata lasciando una traccia Y, ma l'ausiliare non si muove perché la POSIZIONE 2 della subordinata è già occupata da un complementatore.

Es.:



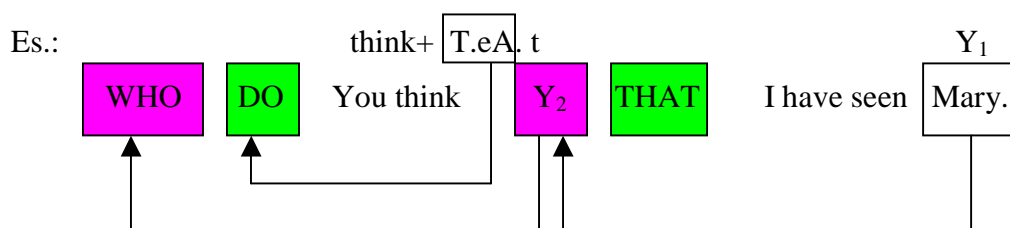
Ma è corretto in Inglese dire:\* “I ask you who if you have seen”? No, la frase risulta agrammaticale. Riprendiamo di nuovo le due restrizioni. Ancora una volta la numero 1) non ci interessa perché non abbiamo uno spostamento di soggetto; ma la numero 2) ci dice proprio che un elemento wh- e un complementatore non possono stare vicini quindi applichiamo la cancellazione superficiale del complementatore:



I ask you who you have seen.

### C. Con il movimento lungo di wh- sul complemento

Se l'elemento interrogativo wh- nasce da una frase dipendente, ma il suo ambito prende anche la frase reggente l'elemento wh- si sposta nella POSIZIONE 1 della frase principale in due tappe: prima si sposta dalla posizione di complemento della subordinata alla POSIZIONE 1 della subordinata, poi dalla POSIZIONE 1 della subordinata alla POSIZIONE 1 della frase principale. La condizione per l'applicazione del movimento lungo si presenta quando nella principale troviamo un "verbo ponte" che può avere come complemento una subordinata introdotta da *that*. I più comuni verbi ponte sono: *think, suggest, believe, say, decide*. Di conseguenza la POSIZIONE 2 della subordinata è riempita dal complementatore *that*, mentre la POSIZIONE 2 della principale conterrà l'ausiliare della principale.



Who do you think (that) I have seen?

Per quanto riguarda le restrizioni, la numero 1) ancora una volta non ci interessa perchè non c'è spostamento del soggetto. Nemmeno la numero 2) ci interessa poiché la combinazione TRACCIA DI COMPLEMENTO/ COMPLEMENTATORE all'inizio della subordinata è una combinazione

possibile; all'inizio della principale è possibile qualsiasi combinazione essendo essa esterna all'ambito in cui ha origine l'elemento wh-.

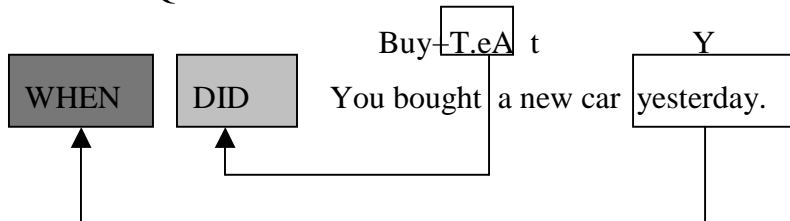
Il complementatore *that* non va cancellato ed è indifferente se scriverlo e pronunciarlo oppure no.

### Homework

*Individua il tipo di interrogativa, l'elemento che si muove e applica lo schema adeguato:*

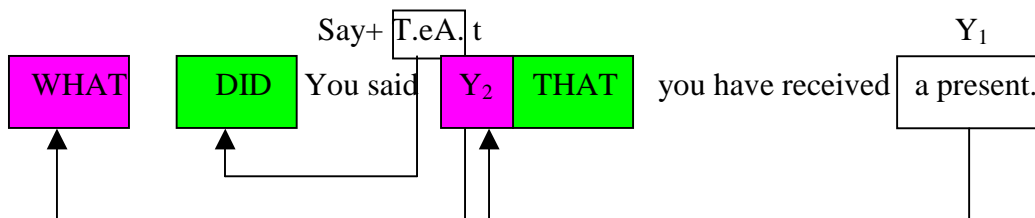
- 1) You bought a new [car yesterday]. [WHEN]
- 2) You said that you have received [a present]. [WHAT]
- 3) I ask you if you want [an apple]. [WHAT]

#### 1) CONTENT QUESTION/ DIRETTA/ SUL COMPLEMENTO



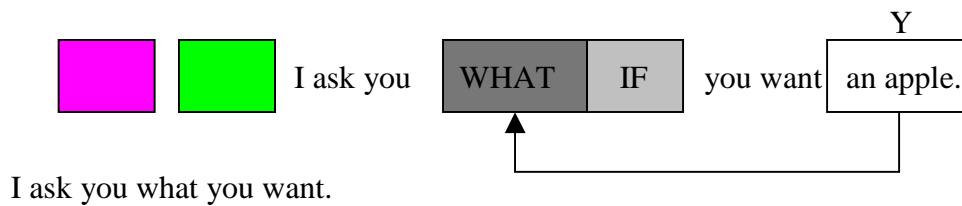
When did you buy a new car?

#### 2) CONTENT QUESTION/ CON IL MOVIMENTO LUNGO DI WH-/ SUL COMPLEMENTO.



What did you say (that) you have received?

### 3) CONTENT QUESTION/ INDIRETTA/ SUL COMPLEMENTO

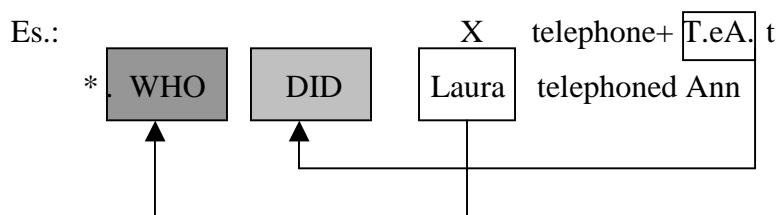


### 3. Third class

Saturday, 27<sup>th</sup> November 1999

#### D. Dirette sul soggetto

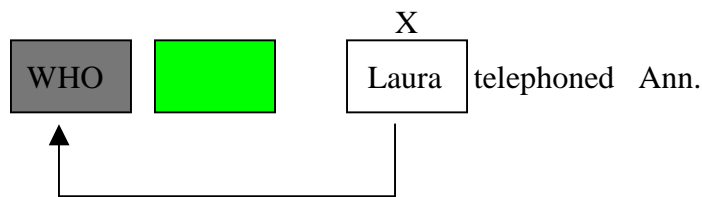
Sono dello stesso tipo di quelle dirette sul complemento, ma in questo caso l'elemento wh- deriva da uno spostamento del soggetto.



\*Who did telephone Ann?

Controlliamo le restrizioni. La 1) ci dice che il soggetto non può spostarsi attraverso una POSIZIONE 2 riempita con qualsiasi elemento. Da questo requisito segue che al verbo viene impedito di muoversi perché altrimenti ostacolerebbe il passaggio del soggetto. Il fatto che la combinazione ELEMENTO WH-/ AUSILIARE non crei problemi non ha importanza.

La forma esatta allora è:



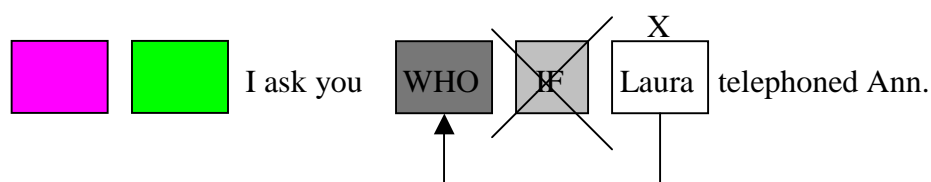
Who telephoned Ann?

La nuova combinazione ELEMENTO WH-/ POSIZIONE  $\emptyset$  non va contro la restrizione 2).

### E. Indirette sul soggetto

Anche queste interrogative sono simili a quelle sul complemento, ma con la differenza che c'è uno spostamento del soggetto che provoca lo stesso fenomeno di impedimento del movimento dell'ausiliare che abbiamo visto nelle interrogative dirette sul soggetto. L'ausiliare in questo caso non può muoversi anche perché la POSIZIONE 2 della subordinata è riempita dal complementatore il quale però va cancellato sia perché ostacolerebbe il movimento del soggetto (restrizione 1) sia perché la combinazione ELEMENTO WH-/ COMPLEMENTATORE non è possibile (restrizione 2).

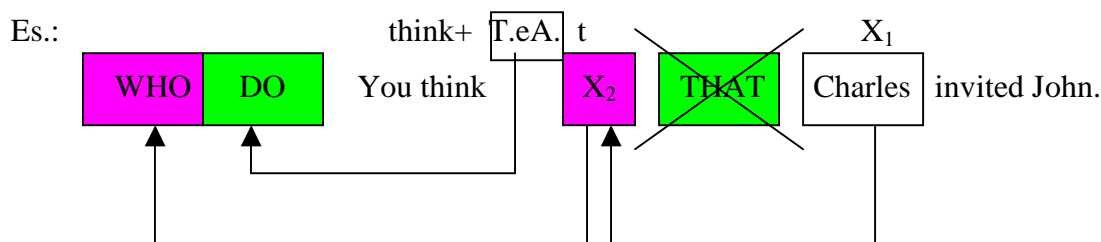
Es.:



I ask you who telephoned Ann.

### F. Con il movimento lungo di wh- sul soggetto

Anche queste interrogative sono simili a quelle sul complemento, ma qui avviene uno spostamento del soggetto.



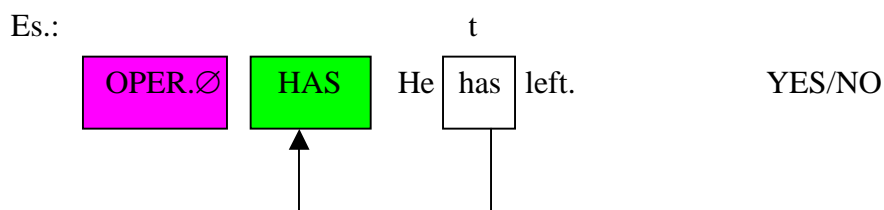
Who do you think invited John?

Il complementatore *that* sparisce per la restrizione 1). La combinazione ELEMENTO WH- SOGGETTO/AUSILIARE, che non sarebbe possibile all'inizio della subordinata, non dà problemi all'inizio della principale in quanto ci troviamo all'esterno della frase da cui parte l'elemento wh- e quindi le restrizioni non sono più valide.

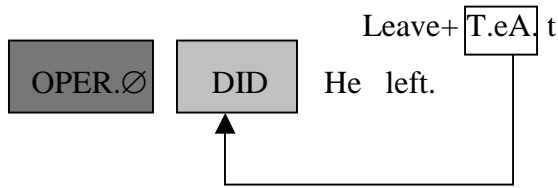
## -2- POLAR QUESTIONS

### G. Dirette

Sono domande che riguardano l'intero evento espresso dalla frase e richiedono una risposta di tipo sì/no. Non hanno differenze rilevanti rispetto alle interrogative wh- dirette eccetto ovviamente la mancanza dell'elemento wh-. In esse troviamo nella POSIZIONE 1 un operatore  $\emptyset$  che ci dice di che tipo di frase si tratta: in questo caso la frase è interrogativa quindi ci sarà un cambiamento rispetto alla frase "normale", la dichiarativa. Infatti l'operatore attira l'ausiliare nella POSIZIONE 2.



Has he left?



Did he leave?

La restrizione 1) non ci interessa perchè non si muove un soggetto; nemmeno la restrizione 2) ci interessa perché OPERATORE Ø/AUSILIARE è una combinazione possibile.

## H. Indirette

Sono frasi subordinate rette da un verbo di domanda. Come nelle altre domande totali c'è un OPERATORE Ø in POSIZIONE 1; come nelle altre subordinate l'ausiliare non può muoversi perché la POSIZIONE 2 è già occupata dal complementatore.

Es.:



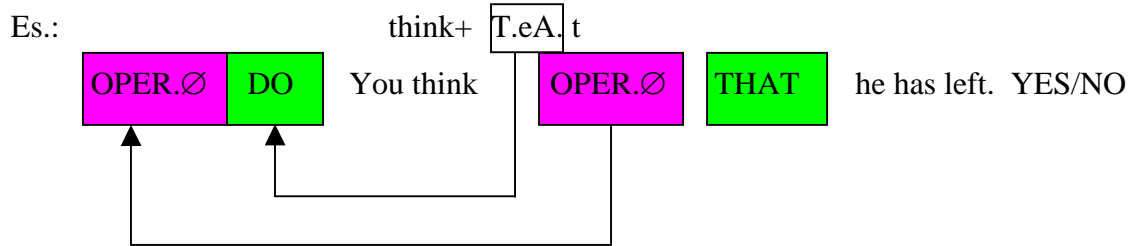
I ask you if he left.

## I. Con il movimento di operatore Ø

Come le interrogative contenute con il movimento lungo di wh- sono frasi subordinate rette da un verbo ponte. Per le caratteristiche dei verbi ponte l'ambito dell'interrogativa si estende anche alla reggente provocando lo spostamento dell'operatore Ø dalla POSIZIONE 1 della subordinata alla POSIZIONE 1 della principale e il movimento



dell'ausiliare della principale verso la POSIZIONE 2. La POSIZIONE 2 della subordinata contiene il complementatore.



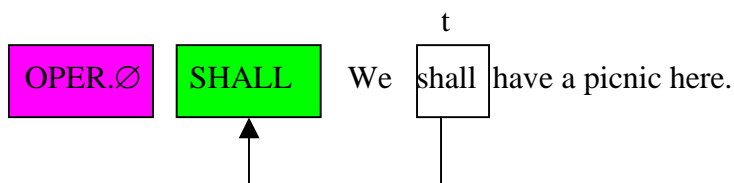
Do you think (that) he has left?

Non c'è spostamento di soggetto perciò la restrizione 1) è sicuramente rispettata; lo stesso vale per la restrizione 2) dato che, come abbiamo già visto, la combinazione OPERATORE Ø/COMPLEMENTATORE non crea problemi e la combinazione OPERATORE Ø/AUSILIARE non ci interessa perché è esterna alla frase da cui parte l'elemento wh-.

## Homework

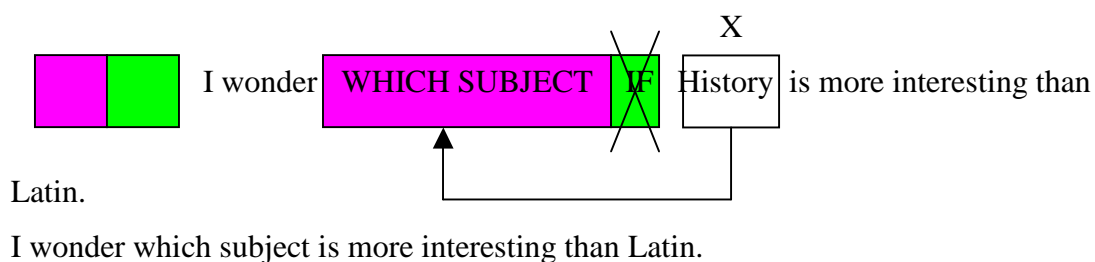
*Individua il tipo di interrogativa, l'elemento che si muove e applica lo schema adeguato:*

- 1) We shall have a picnic here. YES/NO
- 2) I wonder if [History] is more interesting than Latin. [WHICH SUBJECT]
- 3) She believes that you have gone [to France]. [WHERE]
- 1) POLAR QUESTION DIRETTA

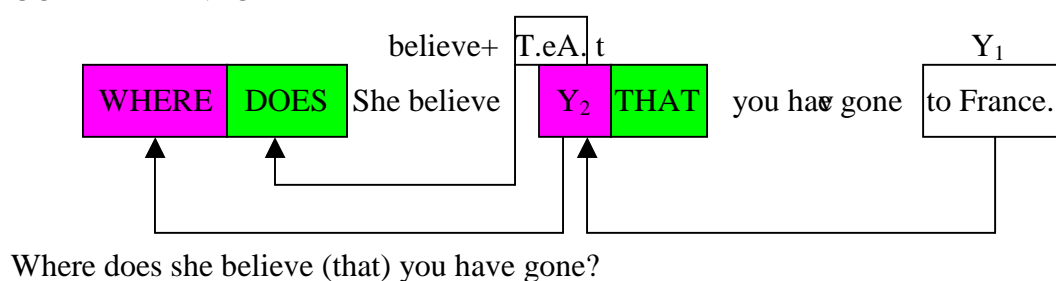


Shall we have a picnic here?

## 2) CONTENT QUESTION INDIRECTA SUL SOGGETTO



## 3) CONTENT QUESTION CON IL MOVIMENTO LUNGO DI WH- SUL COMPLEMENTO



## 4. Fourth class

Monday, 29<sup>th</sup> November 1999

At the beginning I handed out a summarizing scheme to avoid mistakes due to distractions, inattention, oversight, carelessness in the notes of the students. The scheme contained all the types of questions; a brief definition of direct clause, indirect clause and long movement, and the most frequent bridge verbs.

*Chiarimenti sul concetto di elemento foneticamente nullo e dimostrazione che le tracce sono presenti e svolgono funzioni importanti anche se non si vedono.*

Gli elementi foneticamente nulli marcano delle posizioni strutturali, cioè, benchè non siano pronunciati, partecipano a tutti i processi sintattici nello stesso grado degli elementi foneticamente realizzati contribuendo a determinare la forma e l'interpretazione della frase. Che tipo di prove empiriche ci sono in questo senso?

Per definizione un elemento foneticamente nullo non riceve contenuto fonetico, in altre parole non contiene un elemento lessicale, tuttavia la sua presenza può essere rivelata indirettamente per il fatto che blocca dei processi che dovrebbero o potrebbero essere applicati se veramente non ci fosse.

*ESEMPIO: FENOMENO DELLA CONTRAZIONE DI “WANT+TO” IN “WANNA” NELL’INGLESE COLLOQUIALE.*

Il verbo *want* può reggere, come l'Italiano *volere*, una frase infinitiva in cui il soggetto è lo stesso della principale:

- a. They want to help Mary.

Essi vogliono aiutare Mary.

In questo caso i due elementi *want* e *to* sono contigui e l'Inglese colloquiale permette la contrazione “WANT+TO→WANNA”.

Ma *want* può avere anche un altro tipo di complemento infinitivale con un soggetto foneticamente realizzato e diverso da quello della principale:

- b. They want somebody to help Mary.

Essi vogliono che qualcuno aiuti Mary.

Qui la contiguità non c'è più perché un elemento foneticamente realizzato si frappone tra *want* e *to* e quindi la contrazione risulta impossibile.

Ma osserviamo l'interrogativa che deriva da (b.) con l'indicazione del punto da cui è partito l'elemento interrogativo:

d. Who do they want Y to help Mary?

Ora i due elementi sono di nuovo contigui perché non interviene tra loro nessun elemento foneticamente realizzato. Nonostante ciò la contrazione è bloccata e la frase:

e. \*Who do they wanna help Mary?

risulta agrammaticale. Possiamo allora concludere che la traccia Y, sebbene invisibile, è comunque presente tra *want* e *to* e di conseguenza blocca il processo fonosintattico di contrazione di “want+to” in “wanna”.

Then I went on with the individual and collective correction of the homework and with exercises in class. I called the students at the blackboard in turn.

We worked on the following sentences:

1) You think that [Simon] went to the party with me.

CONTENT QUESTION CON IL MOVIMENTO LUNGO DI WH- SUL  
SOGGETTO

Who do you think went to the party with me?

2) They asked me if I knew you. YES/NO

POLAR QUESTION INDIRETTA

They asked me if I knew you.

- 3) I ask you if [someone] called me last week. [WHO]

CONTENT QUESTION INDIRETTA SUL SOGGETTO

I ask you who called me last week.

- 4) You decided that I meet you [at three o'clock]. [WHEN]

CONTENT QUESTION CON IL MOVIMENTO LUNGO DI WH- SUL  
COMPLEMENTO

When did you decide (that) I meet you?

- 5) I ask you if you met [Bob] yesterday. [WHO]

CONTENT QUESTION INDIRETTA SUL COMPLEMENTO

I ask you who you met yesterday.

- 6) I wonder if you are thinking about [the test]. [WHAT]

CONTENT QUESTION INDIRETTA SUL COMPLEMENTO

I wonder what you are thinking about.

- 7) I ask you if you have a computer. YES/NO

POLAR QUESTION CON IL MOVIMENTO DI OPERATORE Ø

I ask you if you have a computer.

- 8) [Volleyball] is your favourite sport. [WHICH]

CONTENT QUESTION DIRETTA SUL SOGGETTO

Which is your favourite sport?

## **5. Fifth class**

**Monday, 6<sup>th</sup> December 1999**

Collective and individual correction of the homework.

Exercises at the blackboard.

## **6. Sixth class**

**Tuesday, 7<sup>th</sup> December 1999**

## TEST

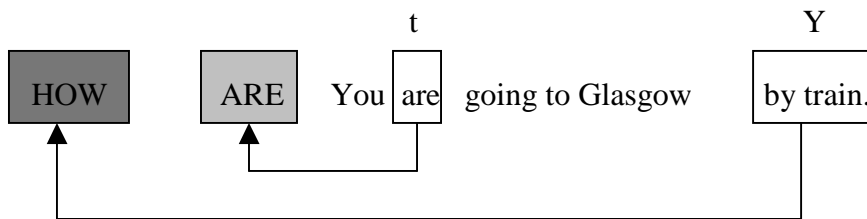
*Individua il tipo di domanda, l'elemento che si muove e applica lo schema.*

- 1) You are going to Glasgow [by train]. [HOW]

Tipo di domanda: content question diretta

Cosa si muove: complemento

Applica lo schema:



Domanda risultante: How are you going to Glasgow?

- 2) I ask you if Mary leaves. YES/NO

Tipo di domanda: polar diretta

Cosa si muove: /

Applica lo schema:



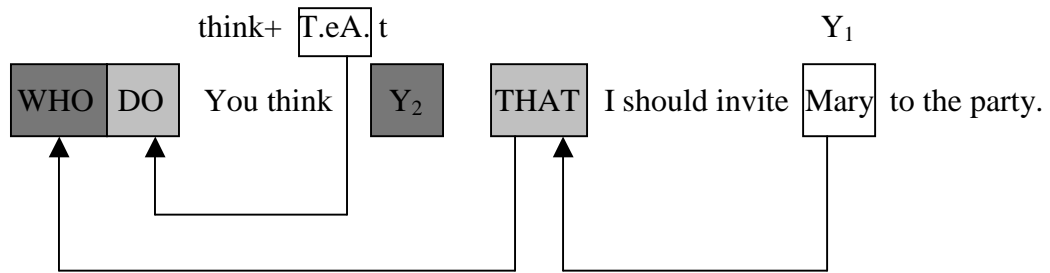
Domanda risultante: I ask you if Mary leaves.

- 3) You think that I should invite [Mary] to the party. [WHO]

Tipo di domanda: content con il mov. lungo

Cosa si muove: complemento

Applica lo schema:



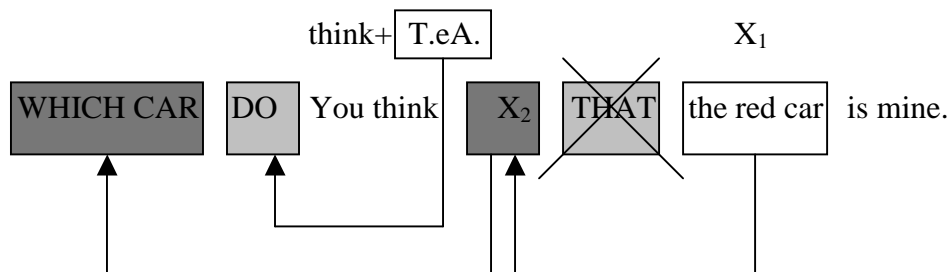
Domanda risultante: Who do you think (that) I should invite to the party?

- 4) You think that [the red car] is mine. [WHICH]

Tipo di domanda: content con il mov. lungo

Cosa si muove: soggetto

Applica lo schema:



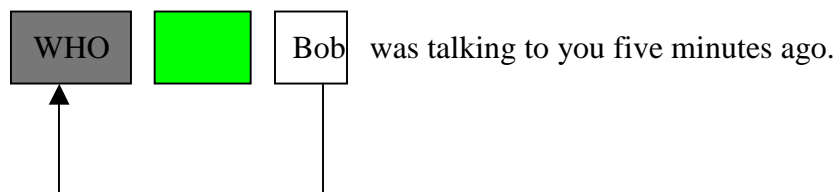
Domanda risultante: Which car do you think is mine?

- 5) [Bob] was talking to you five minutes ago? [WHO]

Tipo di domanda: content diretta

Cosa si muove: soggetto

Applica lo schema: X



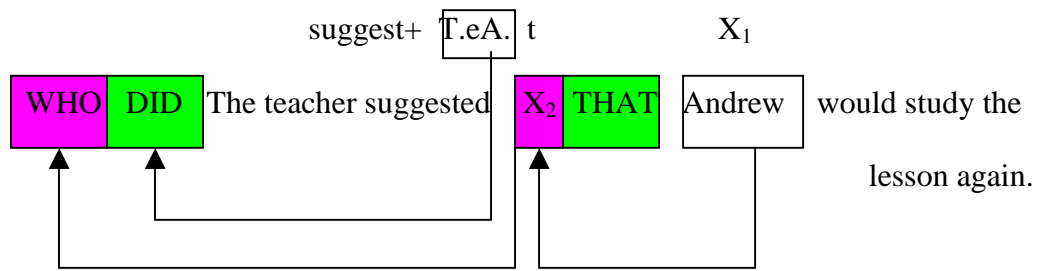
Domanda risultante: Who was talking to you five minutes ago?

- 6) The teacher suggested that Andrew would study the lesson again.

Tipo di domanda: content col mov. lungo

Cosa si muove: soggetto

Applica lo schema:



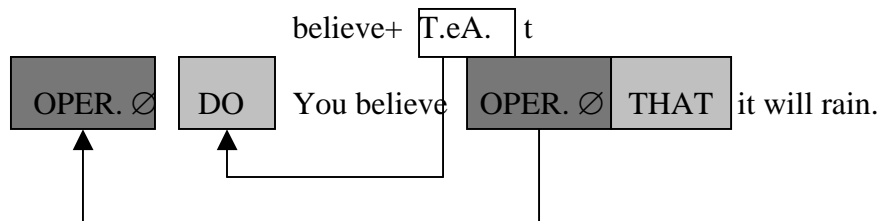
Domanda risultante: Who did the teacher suggest would study the lesson again?

- 7) You believe that it will rain.

Tipo di domanda: polar con il mov. lungo

Cosa si muove: OPER.  $\emptyset$

Applica lo schema:

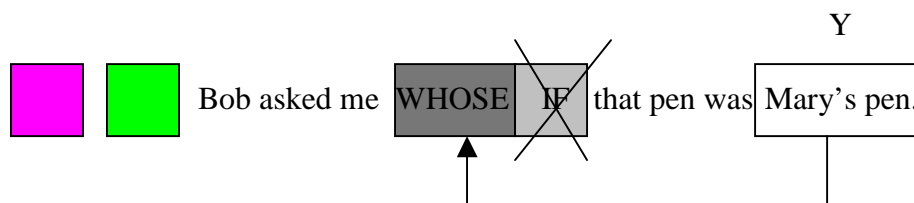


Domanda risultante: Do you believe (that) it will rain?

- 8) Bob asked me if that pen was [Mary's pen]. [WHOSE]

Tipo di domanda: content indiretta

Cosa si muove: complemento



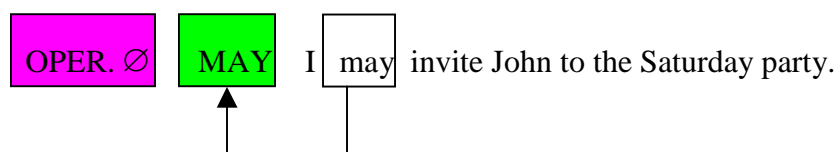
Domanda risultante: Bob asked me whose that pen was.

- 9) I may invite John to the party on Saturday YES/NO

Tipo di domanda: polar diretta

Cosa si muove: /

Applica lo schema:



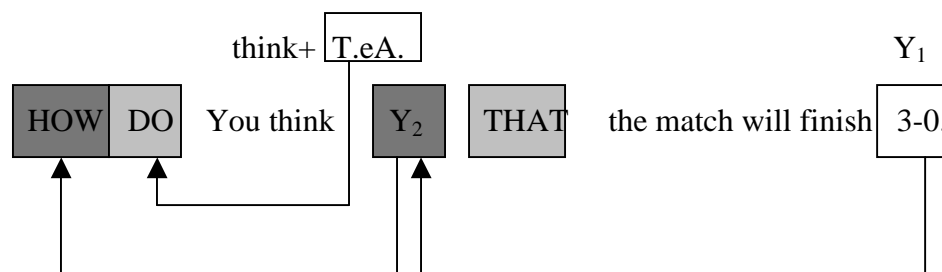
Domanda risultante: May I invite John to the party on Saturday?



- 10) You think that the match will finish [3-0] [HOW]

Tipo di domanda: content con il mov. lungo Cosa si muove: complemento

Applica lo schema:

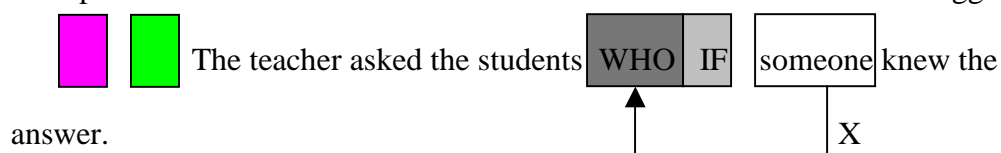


How do you think (that) the match will finish?

- 11) The teacher asked the students if someone knew the answer.

Tipo di domanda: content indiretta

Cosa si muove: soggetto



The teacher asked the student who knew the answer.

*Traduci:*

- 12) Bob mi chiese dove era la mia automobile

(Bob asked me where my car was).

- 13) Con chi hai parlato ieri?

(Who did you speak with yesterday?)

- 14) Dove pensi che io abbia messo la mia automobile?

(Where do you think (that) I put your car?)

- 15) Mary mi chiede chi ha lavato la sua automobile.

(Mary asks me who washed her car.)

- 16) Chi pensi che sia venuto al cinema con me ieri sera?

(Who do you think came to the cinema with me yesterday evening?)

## **IV. TEST ANALYSIS**

### **1. Introduction**

The different sample of sentences, the different type of test, the different levels of the students and many other reasons do not allow me to establish an objective correspondence between the tests of the second form (2<sup>nd</sup> B) and those of the third (3<sup>rd</sup> B) and the fourth (4<sup>th</sup> C) form.

Thus, first of all, I will concentrate my attention on the analysis of the tests of the third and fourth form. I will group together the wrong interrogative clauses in subcategories and I will search for the peculiar mistakes of each subcategory, trying to understand if they could be considered as the real proof of the resetting of the parameters of the Universal Grammar or, on the contrary, if they could be explained through different mechanisms. Furthermore, even if no scientific statistic will be made, I would be able to realize what kind of difficulties the students found in the translation and which level of learning they had reached in these types of structures until then.

Then, I will compare the results obtained with the traditional method and those obtained through my experiment, in order to observe if the method based on Generative Grammar was useful in the solution of the relevant doubts about which the explanation of the traditional grammar is not trenchant enough. Some of these heavy problems are still present at a level of learning in which the structure of the interrogative clauses is thought to have been acquired well.

## 2. 3<sup>rd</sup> B and 4<sup>th</sup> C test analysis – Traditional method

In 3<sup>rd</sup> B, I could collect twenty tests, while in 4<sup>th</sup> C eighteen tests. I will count the mistakes in terms of wrong sentences (w. s.), but it is evident that a sentence can contain more than one mistake. As we have seen before, the sentences of the test were twenty-seven, three for each subcategory arranged at random (for the test, see pages 82-84).

### Content questions

#### A. DIRECT QUESTIONS ON THE COMPLEMENT

##### 1) Con chi hai parlato ieri ?

Who did you speak with yesterday ?

3<sup>rd</sup> B: 6/20 w.s.                      4<sup>th</sup> C: 5/18 w.s.

##### 5) Di che cosa stavi parlando quando ti ho visto?

What were you talking about when I saw you?

3<sup>rd</sup> B: 3/20 w.s.                      4<sup>th</sup> C: 6/18 w.s.

##### 20) Come andrai a Glasgow?

How are you going to Glasgow?

3<sup>rd</sup> B: 1/20 w.s.                      4<sup>th</sup> C: 1/18 w.s.

TOTAL MISTAKES:    3<sup>rd</sup> B: 10/60 w.s.                      4<sup>th</sup> C: 12/54 w.s.

There are not many problems about the structure of the English direct question on the complement. The students have little doubts concerning the position of the wh-element at the beginning of the sentence, the subject/auxiliary inversion and the introduction of the do-support when an auxiliary is not present. Structural mistakes are sporadic and probably

are the result of an individual gap in the learning strategies of single students. I could only find two or three of this type of mistakes, which I am going to comment upon:

- a. \*Which you have you speak yesterday? (1)

I cannot say if the presence of the double subject in (a.) represents a real structural mistake, that is an heavy indecision on the collocation of the subject before or after the auxiliary, or if it is simply a matter of inattention.

- b. \*What about you were talking when I saw you? (9)

- c. \*How to Glasgow? (1)

(b.) shows a clear structural mistake about the application of the inversion I suspect that the student has been attracted by the phrase “what about” (see also sentence h.); (c.) shows at least an indecision.

- d. Who spoke with you yesterday? (1)

In (d.), the sentence is correct from the grammatical point of view, but it is not the sentence required. The meaning is completely different: the roles of the nominal elements are reversed and the *wh*-element appears in subject position. Again, I cannot say if the student was not aware of her wrong semantic interpretation, or if she found some structural difficulties in the translation.

Some more problems arise about the right collocation of the preposition and about the use of *who/whom* in position of Oblique Object. The two possibilities of PIED-PIPING and PREPOSITION-STRANDING are used indifferently. The most frequent mistakes are:

- e.\*With who did you speak yesterday? (about 7 students)

f.\*                    had you talked yesterday? (1)

g.\*Did you talk yeserday with?

h.\*What about were you talking when I saw you? (about 9 student)

i.\*How are you going to Glasgow by?

In (e.), *who* does not appear in the right Case; (f.) shows an evident indecision about the right collocation of the *wh*-element with respect to the preposition; in (g.) the relation between the verb and the preposition it governs is broken by the insertion of the adverb; (h.) contains an heavy mistake again on the collocation of the elements. In my opinion, this type of mistake is not accidental, but rather it seems to stand in the middle between a real structural mistake and the application in a wrong context of some idiomatic expressions such as “What about going to the cinema tonight?” (see above, sentence b.).(i.) is an over- application of the PREPOSITION-STRANDING.

In conclusion, the students of a third and fourth form reveal a good knowledge of the strategies needed to build direct questions on the complement, except for the case in which the *wh*-element origins in position of Prepositional Object. When this situation occurs, the percentage of mistakes increases considerably (18 mistakes in 76 sentences).

## B.     INDIRECT QUESTIONS ON THE COMPLEMENT

**10)**    Ti chiedo chi hai visto stamattina.

I ask you who you saw this morning.

3<sup>rd</sup> B: 5/20 w.s.

4<sup>th</sup> C: 8/18 w.s.

**14)**    Bob mi chiese di chi era la penna.

Bob asked me whose the pen was.

3<sup>rd</sup> B: 14/20 w.s.

4<sup>th</sup> C: 8/18 w.s.

25) Ti chiedo perchè sei così stanco.

I ask you why you are so tired.

3<sup>rd</sup> B: 1/20 w.s.

4<sup>th</sup> C: 3/18 w.s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 20/60 w.s.

4<sup>th</sup> C: 19/54 w.s.

In indirect questions on the complement, the amount of structural mistakes becomes more relevant. If the DOUBLY FILLED COMP FILTER is always respected, we cannot make the same assertion about the non-inversion of the subject and the auxiliary.

As we already know, neither an overt auxiliary moves nor a do-support is introduced at the beginning of subordinate clauses because the position of head of CP is already filled with the complementizer.

The main tendency of the students of both classes is to apply the rule of the subject/auxiliary inversion indistinctly. The relevant structural mistake is always the same with a vast range of possibilities:

- a. \*I ask you who/m do/did you see/seen this morning. (7)
- b. \*I ask you who have you seen this morning. (5)
- c. \*I ask you who saw this morning. (1)
- d. \*Bob asked me whose was/is the pen. (20)
- e. \*Bob asked me which was the pen. (1)
- f. Bob wondered who possessed the pen. (1)
- g. \*I ask you why are you so tired. (4)

Sentence (14) was translated in the wrong way by twenty-two students, that is more than a half. At first sight, I was convinced that the unusual

nature of the wh-element *whose* (= di chi: in Italian the GENITIVE CASE can be expressed only by a preposition preceding the wh-element) and the different word order between English and Italian in this specific case had influenced heavily the percentage of mistake. My opinion was confirmed by the low number of mistakes in sentence (25), where the word order remains the same in the two languages and the wh-element is *why*.

On the other hand, sentence (10) proves the contrary: the word order is still the same in the two languages and the wh-element is *who*, but the amount of wrong sentences remains relevant (13/38).

Thus, I have to conclude that, even if other types of elements influence the formation of wrong sentences, this structure was not acquired well at the basis and it keeps on raising many doubts even at a level, the fourth form, when its acquisition is considered to have already taken place.

#### C. LONG MOVEMENT OF WH-ELEMENT ON THE COMPLEMENT

##### 4) Chi pensi che io abbia visto ieri?

Who do you think (that) I saw yesterday?

3<sup>rd</sup> B: 2/20 w.s.

4<sup>th</sup> C: 4/18 w.s.

##### 7) Come credi che finirà la partita?

How do you think (that) the match will finish?

3<sup>rd</sup> B: 8/20 w.s.

4<sup>th</sup> C: 7/18 w.s.

##### 18) Dove hai detto che era la tua penna?

Where did you say (that) your pen was?

3<sup>rd</sup> B: 6/20 w.s.

4<sup>th</sup> C: 7/18 w.s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 16/60 w.s.      4<sup>th</sup> C: 18/54 w.s.

While in indirect questions there was only one category of mistakes, in sentences affected by the long movement of a wh-element starting from the position of complement, we can observe five types of structural mistakes. It is evident that a wrong sentence can contain one or more of them.

1) The student does not apply the inversion of subject and auxiliary at the beginning of the main clause

a. \*Where you said (that) was your pen? (6)

b. \*Where you said your pen was? (1)

Usually, the inversion appears at the beginning of the subordinate clause (a.); I could find only one example in which there was no inversion at all (b.).

2) The inversion occurs both at the beginning of the main clause and at the beginning of the subordinate clause

c. \*Who do you think that have you seen yesterday? (1)

d. \*Whom do you think did I see yesterday? (1)

e.\*How do you think will the match finish? (4)

f.\*How do you think will finish the match? (5)

g. \*Where have you said that is your pen? (4)

(c.), (d.), (e.) and (g.) make evident the double inversion, while (f.) shows an unusual type of mistake. This kind of construction never occurs in English questions: probably it is due to fact that the five students translated literally from Italian, where the postposition of the subject is normal, into English, where it is forbidden.



3) The *wh*-element appears only at the beginning of the subordinate clause, or it is repeated twice, once at the beginning of each sentence, i.e. it is overtly realized in the landing site of the first step of its movement

h. \*How do you think whom the match will finish? (1)

i. \*Do you think whom I saw yesterday? (1)

We can find only two wrong sentences of this type. Thus, on the one hand, we can say that there are very little problems in recognizing the right site of the *wh*-element at the beginning of the main sentence, on the other hand, we can suppose that the learners can feel, maybe unconsciously, that there is an empty site at the beginning of the *that*-clause which can receive a *wh*-element.

4) A second subject is inserted in the subordinate clause

l. \*Where did you say it was your pen? (2)

The expletive *it* seems to be used in order to allow the postposition of the subject, but the attempt to translate the structure according to Italian style leads to an ungrammatical sentence.

5) The students cannot translate or use a periphrasis

m. five students do not translate

n. \*What about the match? (1)

The variety and the number of mistakes provide evidence that the students have not a homogeneous background, and that this structure is not so clear in different points. Furthermore, we cannot observe improvement in its acquisition between the third and the fourth form.

D. DIRECT QUESTIONS ON THE SUBJECT

8) Chi è venuto al cinema con te ieri sera?

Who went to the cinema with you last night?

3<sup>rd</sup> B: 4/20 w.s.

4<sup>th</sup> C: 5/18 w.s.

**13)** Chi ha telefonato ad Anna?

Who telephoned Ann?

3<sup>rd</sup> B: 2/20 w.s.

4<sup>th</sup> C: 7/18 w.s.

**21)** Chi stava parlando con te cinque minuti fa?

Who was talking to you five minutes ago?

3<sup>rd</sup> B: 3/20 w.s.

4<sup>th</sup> C: 2/18 w.s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 9/60 w.s.

4<sup>th</sup> C: 14/54w.s.

In direct questions on the complement, the only relevant structural problem is the wrong subject/auxiliary inversion or the wrong insertion of the do-support in sentences with no overt auxiliary. The number of mistakes is not so high, but it demonstrates that the structure is not completely acquired. As we can see, there is even a worsening between the third and the fourth form.

- a. \*Who did come/go to the cinema with you last night? (5)
- b. \*With who did you come to the cinema yesterday evening? (1)
- c. Who did you go to the cinema with yesterday evening? (1)
- d. \*Who was the person that came to the cinema with you yesterday evening? (2)
- e. \*Who did telephone to Ann? (5)
- f. \*Who did he telephoned to Ann? (2)
- g. Who was the person that telephoned Ann? (2)
- h. Who/m were you speaking with five minutes ago? (2)
- i. Who was the person that was speaking with you five minutes ago? (1)

l. \*What is the person that he is speaking with you five minutes ago? (1)

m. \*Have who you speak to five minutes ago? (1)

We can see from the examples above that the mistakes go from the simple inversion (g., e.); to the introduction of a double subject (f., l.); to an incomprehensible sentence (m.); to the use of periphrasis. These periphrasis (b., c., d., g., h., i.) are correct sentences sometimes, but even when they are grammatical sentences, they show evident will to avoid a problematic structure. The aim is usually reached by the students through a transformation of the sentence in another sentence which is similar in meaning to the one they have to translate, but in which the whole element comes to be the Oblique Object instead of the Subject (b., c., h.). A second possibility of periphrasis is obtained through the introduction of a relative clause. In this way, the obstacle is eliminated and the resulting sentences are simpler and can be easily translated.

#### E. INDIRECT QUESTIONS ON THE SUBJECT

3) Ti chiedo chi ha telefonato ad Anna.

I ask you who telephoned Ann.

3<sup>rd</sup> B: 1/20 w. s.

4<sup>th</sup> C: 1/18 w. s.

17) L'insegnante chiese ai ragazzi chi conosceva la risposta.

The teacher asked the students who knew the answer.

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: 1/18 w. s.

22) Mary mi chiede chi ha lavato la sua automobile.

Mary asks me who washed her car.

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: 2/18 w. s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 1/60 w. s.

4<sup>th</sup> C: 4/54 w. s.

Indirect questions on the subject arise no structural problems. As for direct questions on the complement, the few mistakes I found seem to be due to individual occasional faults.

- a. \*I ask you who did phone to Ann. (1)
- b. \*I ask you that telephoned Ann. (1)
- c. \*The teacher asked to the students who did know the answer. (1)
- d. \*Mary asks me who did wash her car. (1)
- e. Mary asks me whom washed her car. (1)

(a.), (c.), and (d.) are subordinate clauses with a bad application of the inversion rule. In (b.), there is a bad interpretation of the type of clause: the indirect question has been considered as a relative clause. The use of *whom* in (e.) is unusual: probably it is an accidental mistake.

#### F. LONG MOVEMENT OF WH-ELEMENT ON THE SUBJECT

##### 9) Chi pensi che abbia invitato John?

Who do you think invited John?

3<sup>rd</sup> B: 7/20 w. s.

4<sup>th</sup> C: 4/18 w. s.

##### 11) A chi l'insegnante suggerì che studiasse la lezione di nuovo?

Who did the teacher suggest would study the lesson again?

3<sup>rd</sup> B: 19/20 w. s.

4<sup>th</sup> C: 18/18 w. s.

##### 24) Che automobile pensi che sia mia?

Which car do you think is mine?

3<sup>rd</sup> B: 13/20 w. s.

4<sup>th</sup> C: 7/18 w. s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 39/60 w. s.

4<sup>th</sup> C: 29/54 w. s.

This is the type of questions which presents far the highest number of wrong sentences, probably for the complexity of the principles and of the filters involved. I had some difficulties in classifying the mistakes in single typologies because many sentences contained two or more of them. As one would expect, I could find the same mistakes which appeared in the long movement of a wh-element on the subject and, in addition, the mistakes concerning the subject movement.

Here are all the different possibilities I found in the tests:

- a. \*Who do you think to have invited John? (1)
- b. \*Who do you think John? (1)
- c. \*Who do you think whom invited John? (1)
- d. \*Who do you think have you invitated John? (1)
- e. \*Who do you think did invite John? (1)
- f. \*Who do you think that invited John? (5)
- g. \*Who do you think that John has invited? (1)
- h. no translation (5)
- i. \*Who did the teacher suggest to study the lesson again? (9)
- j. \*To who did the teacher suggest to study the lesson again? (2)
- k. \*Whom the teacher suggested to study the lesson again to? (4)
- l. \*Who(m) the teacher suggest (to) that he (must) study the lesson again? (6)
- m. \*To whom did the teacher say that will study the lesson again? (1)
- n. \*The teacher suggested to whom to study the lesson again? (1)
- o. \*To who the teacher suggest to study the lesson again? (1)
- p. \*Who the teacher suggested to that will study the lesson again? (1)
- q. \*Did the teacher suggest to that must study the lesson again? (1)

- r. \*Who the teacher suggested to study the lesson again? (3)
- s. \*Who did the teacher suggest that he (should) study the lesson again? (3)
- t. \*What car do you think it is mine? (8)
- u. \*Which car do you think that it is mine? (5)
- v. \*Which car do you think that is/should be mine? (5)
- w. \*What car do you think my car is? (1)
- x. \*Which car do you think mine? (1)

First of all, I noted that many students tried to avoid their problems in the translation either by omitting the difficult sentence (h. and b.) or by changing the finite *that*-clause into a wrong non-finite subordinate with a *to*- infinitive (a., i., j., k., n., o., r.). Probably, they were hesitant about the lexical entry of *suggest*, but, in this case, they could have asked me for it, as they could have asked me the translation of every single word. Before starting the test, I told the class that I was not interested in a perfect lexical translation, but rather in the structures of the interrogative sentences, so it would have made no difference if they could not translate some words. In this sense, I tried to use a restricted group of words.

On the other hand, I recommended more than once that they would translate as literally as possible, and made clear that they had not to transform the finite clauses in the test in non-finite subordinates. If they did it anyway, it could only mean that they thought it was the only possible construction or showed a strong will to avoid the translation of the finite *that*-clause.

The other frequent mistakes can be summarized as follows:

- wrong subject/auxiliary inversion at the beginning of the main clause, or at the beginning of the subordinate clause, or both (d., e., n., o., p., q., r., w.).
- the complementizer *that* is inserted in the position of head of COMP of the subordinate clause, or, better, it is not deleted from its basic position. In my opinion, the overt realization of *che* in the Italian sentence and in the English sentences affected by the long movement of a wh-element on the complement strongly influenced the occurrence of this type of mistake, which is really frequent (f., g., l., m., p., q., s., u., v.).
- insertion of the wh-element, or of a personal pronoun, or of a noun (double subject) at the beginning of the secondary clause. The overt realization of the subject of the subordinate clauses demonstrates once again that the students feel that there is a gap in that position, which is in fact the landing site of the first step of the long movement, i.e. the position of the trace (c.,f., g., l.,m., n., p., q., s., t., u., v., w.). The wrong insertion of *whom* instead of *who* is usually due to the wrong interpretation of the wh-element as the Prepositional Object of *to*. The large amount of mistakes (almost half of the students made at least one mistake) give clear evidence of the bad knowledge of this structure at an advanced level of instruction, a level in which the teacher suppose that the basis of English grammar are well acquired.

### **Polar questions**

In general, the structures of the three subcategories of polar questions are well learnt at this level of instruction. The few difficulties

which could delay a good use of them seem to have been got through. Probably, the absence of the wh-element helps a lot in simplifying the problems of translation.

#### G. DIRECT QUESTIONS

12) Mary è andata dal dentista questa settimana?

Has Mary gone to the dentist this week?

3<sup>rd</sup> B: 2/20 w. s.

4<sup>th</sup> C: 2/18 w. s.

15) Posso invitare John alla festa di sabato?

May I invite John at the Saturday party?

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: no mistakes

26) Tuo fratello sa guidare l'automobile?

Can your brother drive a car?

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: 2/18w. s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 2/60 w.s.

4<sup>th</sup> C: 4/54 w. s.

- a. \*Does your brother known to drive/driving the car? (2)
- b. \*Your brother, do he drove a car? (1)
- c. \*Mary has gone to the dentist this week? (2)
- d. \*Mary is going to the dentist this week? (1)
- e. no translation (1)

Only three students did not move the auxiliary at the beginning (c. and d.) and one did not translate at all. In (a.) there is a bad translation of the verb *sapere*; (b.) is a possible, but unusual construction which would be grammatical if the verb had its right form.

#### H. INDIRECT QUESTIONS

6) Ti chiedo se Mary sta partendo.



I ask you if Mary is leaving.

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: 1/18 w. s.

- 19)** Mi chiedo se le piace il regalo che le ho fatto.

I wonder if she likes the present I gave her.

3<sup>rd</sup> B: 1/20 w. s.

4<sup>th</sup> C: no mistakes

- 23)** Mia madre mi chiese se avevo fatto i lavori domestici.

My mother asked me if I had done the housework.

3<sup>rd</sup> B: no mistakes

4<sup>th</sup> C: 2/18 w. s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 1/60 w. s.

4<sup>th</sup> C: 3/54 w. s.

- a. \*I ask you if is Mary going to leave. (2)
- b. \*My mother say me if have I made housework. (1)
- c. \*My mother asked me if had I done the housework. (1)

Again, only few structural mistakes of the same type can be found in these sentences: the over-application of the inversion of the subject and the auxiliary at the beginning of the subordinate clause (a., b., and c.). If I could think that in direct question the non-inversion should be due to a literal translation of the Italian word order, I cannot say the same in this case.

## I. MOVEMENT OF THE EMPTY OPERATOR

- 2)** Pensi che passerai l'esame?

Do you think (that) you will pass the exam?

3<sup>rd</sup> B: 1/20 w. s.

4<sup>th</sup> C: 1/18 w. s.

- 16)** Hai detto alla mamma che andrai in Spagna?

Did you say to your mother (that) you are going to Spain?

3<sup>rd</sup> B: 3/20 w. s.

4<sup>th</sup> C: 2/18 w. s.

27) Credi che pioverà?

Do you think (that) it will rain?

3<sup>rd</sup> B: 2/20 w. s.

4<sup>th</sup> C: 3/18 w. s.

TOTAL MISTAKES: 3<sup>rd</sup> B: 6/60 w. s.

4<sup>th</sup> C: 6/54 w. s.

- a. \*Do you think that rain? (2)
- b. \*Do you believe will? (3)
- c. \*Do you think that will you pass the exam? (2)
- d. \*You say to your mother that you will go to Spain? (1)
- e. \*Did you say to your mother that will you go to Spain? (4)

Six students apply the inversion at the beginning of the subordinate clause (c. and e.); one of them does not apply the inversion at the beginning of the main clause (d.); three do not insert the subject in the secondary clause (b.); two do not insert neither the subject nor the auxiliary in the subordinate clause (a.).

### 3. 2<sup>nd</sup> B test analysis – Theory-based method

The test was performed by nineteen students and was composed by sixteen sentences (see pages 109-112).

The first surprising result was that eight tests contained no structural mistakes at all and that at least two of these tests belonged to students which usually got bad marks in English.

As for the other classes, there were no problems about polar questions.

Direct polar questions presents no mistakes.

In indirect polar questions, I could find only two wrong sentences (2/19 w. s.):

- a. I ask you who leaves. (1)
- b. \*I ask you does Mary leaves. (1)

(a.) shows a wrong interpretation of the class of questions, content instead of polar, with the consequent introduction of the wh-element: this is not a proper structural fault. In (b.), the student gave a correct interpretation of the type of question, applied the scheme in the right way, but transcribed a wrong sentence with the subject/auxiliary inversion and the introduction of the do-support. I cannot say whether it was due to inattention or not.

Again, a wrong interpretation of the type of sentence affects the only mistake found in the polar questions with the movement of the empty operator (1/19 w. s.).

- a. \*You believe that it will rain. (1)

The student did not recognize the bridge verb and considered the sentence an indirect polar question. Thus, she left empty the positions at the beginning of the main clause, and that is why the inversion did not occur.

The same considerations can be made about **CONTENT QUESTIONS ON THE COMPLEMENT**.

**DIRECT** (3/38 w. s.): I could find no mistakes in the direct questions with the application of the scheme and only three tests in which the direct sentence on the complement present in the second part was not directly translated. Furthermore, this last sentence (sentence 13)

contained a verb followed by a preposition. I do not know if the three students which did not translate were not able to do it or if they did not have enough time. 3<sup>rd</sup> B made six mistakes in this same sentence and 4<sup>th</sup> B five.

INDIRECT (8/38 w. s.): indirect questions on the complement presents some more problems. Three mistakes were found in the first part of the test:

- a. \*Whose did Bob ask me if that pen was.(1)
- b. \*Bob asked me whose was the pen. (1)
- c. \*Bob asked me whose if that pen was. (1)

In (a.) the empty positions were put only at the beginning of the main clause so the wh-element and the inversion were applied there; in (b.) there is the typical wrong inversion at the beginning of the subordinate clause; in (c.)the student did not delete the complementizer in POSITION 2. In the direct translation about five students made the wrong inversion.

LONG MOVEMENT (1/57 w. s.): There were no mistakes in the three sentences affected by the long movement of an object wh-element. Only one student did not translate directly the sentence of this type in the second part of the test.

For what concerns the WH-QUESTIONS ON THE SUBJECT, it seems that the problems of the movement of the auxiliary in POSITION 2 in DIRECT INTERROGATIVE SENTENCES (9/19) have not been resolved yet. Seven students moved the auxiliary in POSITION 2 and two students moved the subject in POSITION 2. The resulting sentence was correct in

this case, but the application of the process was wrong, which indicates confusion.

INDIRECT QUESTIONS ON THE SUBJECT (6/38 w. s.) gave better results:

- a. \*Who did the teacher asks the students knew the answer? (2)

Two students bad interpreted the type of question and applied the long movement to the indirect question, while one student did not applied the scheme at all. In the second part of the test, three students did not translate, probably for lack of time.

The LONG MOVEMENT OF A SUBJECT WH-ELEMENT (10/57 w. s.) presents few mistakes,too:

- a. \*The teacher suggested who would study the lesson again? (2)

Two students applied the scheme of the indirect questions, only one did not delete the complementizer *that* and another one did not translate. Four students did not translated the correspondent question in the second part and two did not delete the complementizer.

## CONCLUSION

As I have already said before, I cannot establish an objective comparison between the two types of tests, but I can try to draw some final considerations. Giving a look to the results of the two tests, it is immediately evident that there is no worsening in none of the interrogative clauses in question. Where the traditional method arose no problems, the same situation has been verified also with the new method. Polar questions proved to have been acquired well in each case, and the same statement can be made about direct questions on the complement and indirect questions on the subject. A light reduction in the number of mistakes can be observed in direct questions on the complement with pied-piping or preposition-stranding, while indirect questions on the complement, and long movement both of a complement and of a subject show remarkable improvement.

The only subcategory of interrogative clauses in which many doubts still remain is the direct question on the subject.

The experiment took place in a class where at least some of the interrogative structures I used had never been faced before. I would like to emphasize that the starting level of the students was not homogeneous, that they only had had short training before the test, that they saw some structures for the first time and so on. Nevertheless they were interested and demonstrated diligent participation, good attention and will to learn.

The classes were lead in a way which allowed me to have continuous interaction with the learners and exploitation of the grammatical instruments they already possessed . They were afraid neither to answer the questions I asked, nor to reveal their doubts and make me repeat the difficult passages.

It seems that the method gave good results within a short period: about half of the students got very good results, which is far more than is normally obtained by traditional teaching.

Unfortunately, I will not easily have the possibility to repeat the test after a year or two, but, even if I could have it, the interferences of the traditional method would have been too strong.

One of the most relevant disadvantages I could find was that I had to introduce this type of exposition within a system in which the pedagogical attention to language form is rooted in a conception of language whose formalism is directly manifested in discrete entities such as the familiar bound morphemes, parts of speech, verb tense, and so forth. Underlying this approach is usually the tacit assumption that successful language learning is equivalent in a large part to the cumulative mastery of sequentially introduced such units. As in this respect Rutherford (1988) observes, ‘largely absent from the thinking that goes into language are the notions (1) that there are unobservable properties of language system that are crucial to its implementation, and (2) that pedagogical attention to language system need not of necessity lead automatically to classroom attention’.

At first sight, my method could seem a cumulative amount of grammatical rules, too, but the essential difference, in my opinion, stands on the fact that relatively few principles, once understood, can be applied to a vast range of structures. To do only a brief example, the simple rule that only one element at a time can fill each of the two initial positions, which was introduced to explain interrogatives also accounts for the complementary presence of the conjunction *if* or the verb (subject/verb inversion) in hypothetical subordinate clauses.

- (1) a. If he had come in time, we would have left earlier.
- b. Had he come in time, we would have left earlier
- c. \*If had he come in time, we would have left earlier.

In POSITION 1 of the subordinate of the examples above (in Rizzi, 1983) there is a modal operator which causes the inversion, but the inversion can occur only if POSITION 2 is not filled with an overt complementizer. If the two elements which can be possibly contained in POSITION 2 (the complementizer and the auxiliary) are present at the same time, the resulting sentence will be ungrammatical (1c.).

Furthermore, the high number of structural mistakes in comparison with other types of mistakes demonstrates the initial hypothesis that the major problems concerning second language learning affect the resetting of the parameters from  $L_1$  to  $L_2$ . In particular pied-piping or preposition-stranding, the subject/auxiliary inversion or non inversion, the introduction of the do-support, the deletion of *that* in the long movement on the subject are the relevant nodes of the interrogative structure learning. The traditional method seems not to be able to solve many of



the problems derived from the differences in the choice of the parameters between Italian and English. On the contrary, it seems to arise some new doubts: the over inversion in subordinate clauses probably is due to an over application by analogy of the same rule of direct questions on the complement and long movement. The inversion rule in direct questions is automatically extended to all the types of interrogative clauses; i. e. it is just interpreted as a mark of questions and that is why we can find so many mistakes in direct questions on the subject. In my opinion, the previous knowledge of this rule remained in the students during the experiment and caused a remarkable number of mistakes in the application of the scheme in direct questions on the subject. But I am aware that other reasons can have been at work. The gap left in POSITION 2 in direct sentences on the subject is felt as something unusual. If I were the teacher, I would go into this question better and try to find an alternative resolution to the problem, such as the introduction of a virtual symbol in POSITION 2 or an automatic deletion of the position in this exceptional case, in order to avoid the movement of the auxiliary.

The method proved to have worked well, in particular it has demonstrated that a careful reflection on the language can give better results than an automatic application of grammatical rules, in the form of sequences of words, learned by heart. On the other hand, it is only the first step of a process, a sketch which would have to be improved in its weak points both by a prolonged work of analysis in class and by its

introduction in a wider project of renewal in the way of teaching grammar.



## Bibliography

Akmajian Adrian, Richard A. Demers, Ann K. Farmers, Robert M. Harnish. *Linguistics. An Introduction to Language and Communication*. Cambridge, Mass.: The MIT Press, 1984

Arcaini Enrico, Bernard Py, Rema Rossini Favretti. *Analyse contrastive et apprentissage des langues: la syntaxe de l'interrogation en espagnol, français, italien et anglais*. Bologna: Patron, 1979

Beccaria, Gian Luigi ed. *Dizionario di linguistica e di filologia, metrica, retorica*. Torino: Einaudi, 1994

Benincà, Paola. *Appunti del corso 1997-1998. Sintassi*. Lecture notes. University of Padova, 1997-1998

Chomsky, Noam. *Aspects of the Theory of Syntax*. Cambridge, Mass.: The MIT Press, 1965

Chomsky, Noam. *Barriers*. Cambridge Mass.: The MIT Press, 1986

Chomsky, Noam. *Lectures on Government and Binding*. Dordrecht: Foris, 1981

Ciliberti, Anna. *Grammatica, pedagogia, discorso*. Firenze: La Nuova Italia, 1991

Cook, Vivian J. *Chomsky's Universal Grammar. An introduction*. Oxford: Basil Blackwell, 1988

Ellis, Rod. *Understanding Second Language Acquisition*. Oxford: Oxford University Press, 1985

Falinski, Jozef. *An English Grammar*. Firenze: Valmartina, 1990

Flynn, Suzanne and Wayne O'Neil (eds.) *Linguistic Theory in Second Language Acquisition*. Dordrecht: Kluwer Academic Publishers, 1988

Flynn, Suzanne "Government-binding: parameter-setting in second language acquisition", in Huebner, Thom and Charles A. Ferguson (eds.) *Crosscurrents in Second Language Acquisition*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 1991 143-167

Freidin, Robert. *Foundations of Generative Syntax*. Cambridge Mass.: The MIT Press, 1992

Gass Susan M. and Larry Selinker (eds.) *Language Transfer in Language Learning*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 1993

Gass Susan M. and Jacqueline Schachter. *Linguistic Perspectives on Second Language Acquisition*. Cambridge: Cambridge University Press, 1989

Gass Susan, Antonella Sorace, Larry Selinker. *Second Language Learning Data Analysis*. Mahwah: Lawrence Erlbaum Associates, 1999

Gentile, Giuseppe. *Language Acquisition and Universal Grammar. A Survey of Recent Research*. Unpublished Graduate Diss. Padova, 1995

Giunchi, Paola (ed.) *Grammatica esplicita e grammatica implicita*. Bologna: Zanichelli, 1990

Graffi, Giorgio *Sintassi*. Bologna: Il Mulino, 1994

Graffi Giorgio and Luigi Rizzi. *La sintassi generativo trasformativale*. Bologna: Il Mulino, 1979

Greenbaum, Sidney and Randolph Quirk. *A student's grammar of the English language*. Londra: Longman, 1990

Gregg, Kevin R. "Second language acquisition theory: the case for a generative perspective", in Gass, Susan M. and Jacquelyn Schachter (eds.) *Linguistic Perspectives on Second Language Acquisition* Cambridge: Cambridge University Press, 1989. 15-40

Haegeman, Liliane. *Introduction to Government and Binding Theory*.

Oxford (UK)/Cambridge (USA): Basil Blackwell, 1991

Hudson, Richard. *Teaching Grammar. A Guide for the National Curriculum*. Oxford (UK)/Cambridge (USA): Basil Blackwell, 1992

Huebner, Thom and Charles A. Ferguson (eds.) *Crosscurrents in Second Language Acquisition and Linguistic Theories*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 1991

Johnson, Keith and Helen Johnson (eds.) *Encyclopedic Dictionary of Applied Linguistics*. Oxford/Malden: Basil Blackwell, 1998

Klein, Elaine C. *Toward Second Language Acquisition. A study of Null-Prep*. Dordrecht: Kluwer Academic Publishers, 1993

Lepschy, Giulio C. *La linguistica del Novecento*. Bologna: Il Mulino, 1992

Lo Duca, Maria G. *Esperimenti grammaticali. Riflessioni e proposte sull'insegnamento della grammatica dell'italiano*. Firenze: La Nuova Italia, 1997

Mitchell Rosamond and Florence Myles. *Second Language Learning Theories*. London/New York: Arnold, 1998

Radford, Andrew. *Syntactic Theory and the Structure of English. A minimalist approach*. Cambridge: Cambridge University Press, 1997

Rizzi, Luigi *Spiegazione e teoria grammaticale*. Padova: Unipress, 1990

Rutherford, William E. *Second Language Grammar: Learning and Teaching*. New York: Longman, 1987

Rutherford William and Michael Sharwood Smith (eds.) *Grammar and Second Language Teaching*. Boston: Heinle & Heinle Publishers, 1988

Rutherford, William and Michael Sharwood Smith. "Consciousness Raising and Universal Grammar", in Rutherford, William and Michael Sharwood Smith (eds.) *Grammar and Second Language Acquisition*. Boston: Heinle & Heinle Publishers. 107-116

Ruwet, Nicolas, *Introduction à la grammaire générative*. Paris : Librairie Plon, 1967. Italian translation : *Introduzione alla grammatica generativa*. Simone Baldi Clara and Raffaele Baldi (eds.). Firenze: La Nuova Italia, 1979

Quirk, Randolph and Sidney Greenbaum. *A University Grammar of English*. London: Longman, 1980



Schachter, Jacquelyn. "Testing a proposed universal", in Gass, Susan M. and Jacquelyn Schachter (eds.) *Linguistic Perspectives on Second Language Acquisition*. Cambridge: Cambridge University Press, 1989 73-88

Sharwood Smith, Michael *Second Language Learning: Theoretical Foundations*. New York: Longman, 1994

Spolsky, Bernard *Conditions for Second Language Learning*. Oxford: Oxford University Press, 1989

Stern, H. H. *Issues and Options in Language Learning*. Oxford: Oxford University Press, 1992

Vince, Michael. *Advanced Language Practise*, Bath: Bath Press, 1994

White, Lydia. *Universal Grammar and Second Language Acquisition*. Amsterdam/Philadelphia: John Benjamins Publishing Company, 1990

## **RIASSUNTO**

Il mio lavoro si inserisce in uno dei filoni di pensiero all'interno dei numerosi studi sull'apprendimento della seconda lingua in età adulta (dopo la pubertà), e in particolare prende il via dalle ricerche che sono state fatte in questo ambito da coloro che seguono la tesi proposta dalla Grammatica Generativa.

Questa teoria consiste nell'individuare una serie di principi universali del linguaggio comuni a tutte le lingue del mondo, alcuni dei quali consistono di due o più parametri che permettono tutta la gamma di variazioni tra le lingue naturali. Secondo la teoria generativa, ogni individuo possiede fin dalla nascita una dotazione genetica composta da questi principi e fa scattare i parametri quando viene a contatto con parlanti di una lingua specifica.

La questione che qui ci interessa è se questa dotazione innata è ancora disponibile e quanto nel caso di un apprendimento adulto di una seconda lingua.

Tre sono le ipotesi che attualmente sono sotto indagine:

- 1) i principi della Grammatica Universale sono completamente disponibili
- 2) i principi della Grammatica Universale sono ancora disponibili, ma avviene una risistemazione dei parametri dove il loro valore è diverso nelle due lingue
- 3) sono disponibili solo quei valori dei parametri che appartengono alla prima lingua.

Nessuna delle tre ipotesi è migliore o definitiva, ma quella che personalmente mi è sembrata la più convincente è la posizione intermedia 2).

Partendo da questo presupposto e dando per scontata la validità di questa ipotesi, ho cercato di trovare un modo facile per semplificare una teoria piuttosto complicata in modo da renderla fruibile a ragazzi delle prime classi delle scuole medie secondarie.

Il mio esperimento si focalizza sulla spiegazione grammaticale esplicita delle frasi interrogative inglesi in classe, quindi in un contesto istituzionale, non naturale.

Ai nostri giorni, l'importanza di una spiegazione esplicita di regolarità generali della lingua per ottenere una capacità comunicativa che vada al di là dell'espressione dei bisogni primari è riconosciuta dalla maggior parte degli studiosi.

Seguendo queste direttive, nella prima parte ho dato una panoramica dei principi che sottostanno alla formazione delle frasi interrogative. Quindi ho analizzato uno per uno i tipi di frasi interrogative (9 tipi in tutto: quelli richiesti dai programmi scolastici) dando per ciascun tipo lo schema ad albero standard e lo schema facilitato da esso ricavato. La semplificazione è stata resa possibile dall'utilizzo di posizioni vuote sotto forma di rettangoli colorati che sono stati inseriti all'inizio di ciascuna frase, principale e secondaria, nei posti corrispondenti a quelli che nell'albero funzionano da luoghi di arrivo di elementi. Il meccanismo che ho proposto consiste infatti nel partire da frasi affermative attive e nell'ottenere da esse le corrispondenti interrogative

attraverso il movimento di elementi dalla loro posizione originaria a quella finale.

La seconda parte della mia ricerca consiste nell'esposizione del lavoro svolto in classe. Grazie alla disponibilità e alla collaborazione di un'insegnante d'inglese ho potuto testare la validità del metodo in una seconda liceo scientifico. Inoltre ho avuto la possibilità di proporre, parallelamente al mio esperimento, un compito di controllo sull'apprendimento di queste strutture in una terza e in una quarta dello stessa scuola, classi in cui esse sono date per acquisite.

La spiegazione e gli esercizi sono stati concentrati in cinque lezioni più una sesta completamente dedicata al compito di verifica durante un periodo di 2/3 settimane tra la fine di novembre e l'inizio di dicembre 1999. Gli studenti si sono dimostrati subito disponibili e attenti, grazie anche al fatto che la loro insegnante ha presentato l'esperienza in modo serio avvertendo gli alunni che il voto del test sarebbe stato considerato parte integrante della valutazione del primo quadrimestre.

Nonostante ciò, bisogna tener conto che la maggior parte delle strutture interrogative che ho esposto non erano mai state affrontate prima, che il livello di partenza degli studenti non era omogeneo, ma soprattutto che il nuovo tipo di spiegazione è stato introdotto all'interno di un sistema completamente diverso, basato più sull'apprendimento mnemonico che su una riflessione ragionata sugli elementi della lingua.

A prima vista anche il mio metodo può sembrare un cumulo di regole grammaticali, ma la differenza essenziale col metodo tradizionale, secondo me, sta nel vantaggio, oltre che istantaneo, a lungo termine: una

quantità relativamente ristretta di principi, una volta capiti, può essere applicata ad una vasta gamma di strutture. Ad esempio, le stesse regole di base delle interrogative possono essere utilizzate per spiegare le relative o l'inversione nelle ipotetiche senza *if*.

Anche i vantaggi a breve termine si sono rivelati rilevanti: non c'è stato nessun peggioramento del rendimento.

Il compito in classe di terza e di quarta consisteva nella traduzione diretta di ventisette frasi dall'italiano all'inglese. poiché ero interessata ai soli errori strutturali, gli studenti avevano il permesso di chiedermi tutte le parole che non conoscevano. Essi non hanno avuto difficoltà a portare a termine il lavoro in un'ora. Anche in questo caso l'insegnante aveva puntualizzato che il voto del compito sarebbe stato considerato valido.

Il compito della seconda era strutturato in due parti: la prima parte conteneva undici frasi affermative attive in inglese con l'indicazione dell'elemento da spostare. Si richiedeva agli studenti di individuare il tipo di frase coinvolta, la categoria dell'elemento da spostare e quindi di applicare lo schema adeguato. La seconda parte consisteva in cinque frasi da tradurre direttamente senza restrizioni sul tipo di metodo da utilizzare.

I due compiti erano diversi, pertanto non si può stabilire un confronto oggettivo tra di essi. Il mio obbiettivo era di rendermi conto di quali fossero gli errori strutturali rilevanti che rivelavano le lacune lasciate dal metodo tradizionale e quindi di osservare se quelle indecisioni potevano essere risolte dal mio metodo.

Come ho detto in precedenza non si sono verificati peggioramenti nella formazione di nessuna delle strutture sotto indagine, anzi ci sono stati dei lievi o vistosi miglioramenti in alcuni tipi di frasi. Solo per un tipo di frasi in particolare (dirette sul soggetto), entrambi i metodi così come sono presentati sembrano fallire e necessitano perciò di una revisione.

In conclusione, il metodo che ho proposto ha dato buoni risultati; esso quindi potrebbe essere utilizzato come metodo alternativo.

Ovviamente il mio esperimento è solo un primo passo verso il rinnovamento del sistema e come tale andrebbe sicuramente studiato meglio e perfezionato attraverso la ricerca e l'esperienza in classe.

Ma, soprattutto, per funzionare ancora meglio andrebbe inserito in un contesto più omogeneo in cui la spiegazione in classe seguisse fin dall'inizio questo sistema di riflessione grammaticale.