UNIT 4 THE SYNTAX OF INFLECTIONAL ELEMENTS: TENSE & AGREEMENT

Structure

4.0 OBJECTIVES

The objectives of this unit are that at the end of this unit you should be able to

- recognize verbal inflection (INFL) as a significant syntactic constituent,
- understand the transformation of Affix-Hopping and its subsequent development,
- understand how verbal inflection participates in syntactic government,
- understand the role of Tense and finiteness in the syntax of clauses,
- understand the phenomenon of Agreement and its syntactic relationship to Case.

4.1 INTRODUCTION

4.1.1 The inflectional element INFL: verbal morphology, clausal syntax,

In Unit 3, we have seen how Cases and thematic roles are assigned by the verb along with its inflectional component. In this unit, we shall be concerned with the inflectional component of the verb. In the paper on English morphology; the notion of inflectional morphology was introduced. Verbal inflection carries information about the inflectional categories of tense, sometimes aspect and **mood,** and person, **number,** and (in some languages, though not in English) **gender.** All of these inflectional categories have a wider role to play in the syntax of the clause in which the verb occurs with its inflection, and therefore a special kind of syntactic element INFL (from "inflection") is recognized for the composite inflectional component of the verb.

As it turns out, the element INFL satisfies the tests for syntactic constituency that we have learned about in Unit 1. Thus, it can replace a distinct syntactic constituent such as a modal auxiliary like may or must, as shown by the examples (1a) and (1b):

(1) a. Ahmed goes to school every day.
b. Ahmed must go to school every day.

Here, the present-tense third-person singular-number inflectional element *-(e)s* with the verb go in (1a) is the inflectional element INFL. The same element can occur in different distributional positions (e.g., with an auxiliary verb such as ***do*** or be), as (2a) and (2b) demonstrate:

(2) a. Does Ahmed go to school every day?
b. Is Ahmed going to school these days?
(= *be*+*-(e)s*)

Since INFL is not necessarily a full word, when it occurs as a suffix in English it needs a verb -- either a main verb or an auxiliary -- to attach to. Therefore, in the absence of auxiliary be or have, the verb do is brought in to "support" the INFL element. The insertion of auxiliary do to support the INFL element is an insertion transformation called Do-Support. (No phrase structure rule has the power to insert or delete or move any syntactic constituents -- for these operations we have to formulate specific transformational rules.)

4.1.2 The transformation of Affix-Hopping

Let us for a moment remember the deep-structure order of INFL and the verb to which it attaches in a clause. As we saw in the **Conclusion** of Unit 2, the head of the clause is I, i.e., INFL, and the VP occurs as its complement to the right of it. Therefore, INFL precedes the V head of the VP, i.e., occurs to the left of V. When the INFL element COMBINES with the V into an inflected verb-form such as *walks* or goes, however, we find INFL actually SUFFIXED to the verb root, i.e., as a morphological element combining with V, INFL occurs to the RIGHT of V. How to reconcile these two apparently contradictory observations in our theory of English grammar?

This is done by proposing that a minor transformational rule called **Affix-Hopping** operates on a morphological INFL element to make it "hop" over a verb -- whether a main verb or an auxiliary verb -- that occurs to its right (either in deep structure itself or by being inserted by a transformation such as Do-Support), so that it ends up morphologically suffixed to the verb-root.

4.2 TENSE

4.2.1 Tense and finiteness

Tense refers to the inflectional manifestation of the time of an action, event or state expressed by a clause, where the time is gauged as preceding, coinciding with, or following the time of reference of the clause. The syntax and semantics of tense is a complex and fascinating area for further study and research; here we shall embark on just an introductory exploration of the syntactic role of tense in English sentences. Consider the following sentences:

(3) a. Ram walked five kilometres yesterday.
b. Ram walks five kilometres every day.
c. Ram will walk five kilometres tomorrow.

Although the subject and the main verb-root are the same in all the three sentences (3a-c), the inflected form of the verb changes according to whether the action expressed by the sentence is in the past, the present, or the future. The forms walked, walks, and will walk are the (third-person singular) Present-tense, Past-tense, and Future-tense forms, respectively, of the verb-root walk in English. While the (simple) Present and Past tenses are morphologically expressed in the suffixes *-s* and *-ed*, respectively, the Future tense is expressed syntactically in English, by the (historically modal) future auxiliaries will and shall preceding the main verb.

4.2.2 Tense as Case-assigner

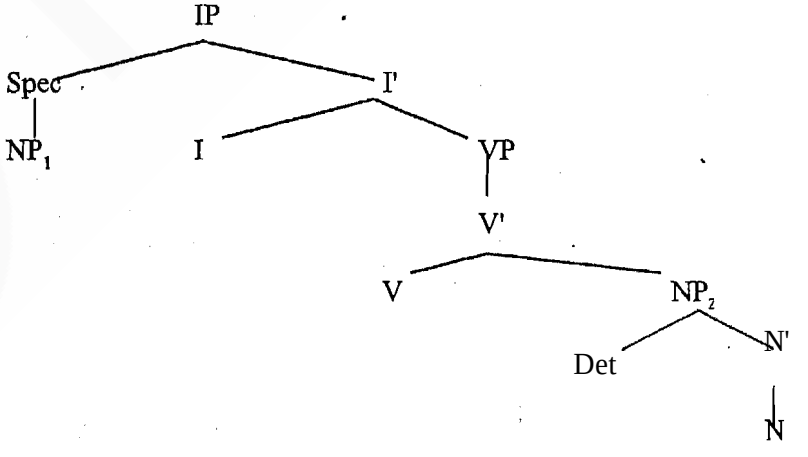
Tense plays an important role in deciding the function of INFL as governor and Case-assigner to the subject. Tensed INFL can assign Nominative Case to the subject of its clause, whereas infinitival INFL cannot. The need for Exceptional Case-Marking (see Unit 3) arises within the structure of English syntax because of this, in order that the subject of an infinitival complement clause need not go Caseless.

To understand the role of Tense as Case-assigner, we need to have an understanding of tensed INFL as the **governor** of the subject. In Unit 1, we briefly mentioned that the notion of **government** is based on the notion of c-command: a governor must (at least) c-command the syntactic constituent that it governs. We now revise this observation and introduce the relationship of **m-command,** because it turns out that the notion of government is based on a relationship of m-command, a broader notion than c-command. The relationship of m-command is defined as follows:

(4) **m-command:** **A** node **X** *m-commands* another node Y if and only if the lowest maximal projection dominating X also dominates Y, and neither X dominates Y nor vice-versa.

To understand what this means, let us consider the following phrase structure:

(5)



In this phrase structure tree, the only maximal projection (i.e., phrasal category of the general type XP or X") dominating I is IP; this is also a maximal projection that dominates NP_1, the subject in the Spec(ifier) of IP. Therefore, I m-commands NP_1, even though it does not c-command NP_1. Furthermore, I is the closest head m-commanding NP_1. Therefore, I is a likely governor of NP_1. Note that there is another head element, V, which is also dominated by IP. However, V does not m-command NP_1, since the lowest maximal projection dominating V, viz., VP, does not dominate NP_1. Moreover, V is not the head closest to NP_1. On two counts, therefore, V cannot be the governor of the subject NP_1. However, V is the governor of another syntactic constituent, viz., its direct object NP_2. To see why, note that V m-commands NP_2 -- the lowest maximal projection dominating V is VP, which also dominates NP_2.

Because of the function of Tense as Case-assigner, it is impossible for the subject of a finite complement clause to receive Accusative Case through Exceptional Case-Marking (see Unit 3), unlike in the case of the subject of an infinitival complement clause.

4.2.3 Aspect and Tense

Aspect is another verbal inflectional category that often occurs closely allied with Tense. Unlike Tense, however, Aspect refers not directly to the time of an event but rather to the status of completion or progression of an event at the time referred to by the Tense on the verb. English has three distinct aspects for each of the three tenses. These are (i) the **simple** or **indefinite** aspect, (ii) the **perfect** aspect, and (iii) the **progressive** or **continuous** or **imperfect** aspect. These are illustrated by the three sentences below:

(6) a. Ram reads a book every day.
b. Ram has read this book.
c. Ram is reading that book at the moment.

The tense for all these sentences is the Present tense -- even for (6b), which expresses the fact that Ram's reading of this book is complete relative to the present *moment* of time. The verb-form reads in (6a) is a simple present (or present indefinite) verb-form; the combination of auxiliary verb has and main verb read in (6b) is in the present perfect; and the combination of auxiliary verb is and main verb *reading* in (6c) is in the present continuous Tense-Aspect combination.

As a functional category, Aspect does not share the feature of finiteness that Tense possesses, and hence verb-forms such as the perfect (i.e., "past") participle and the progressive participle (in *-ing*), which possess the perfect and the progressive Aspect, respectively, count as non-finite forms. An Aspect-bearing INFL element, therefore, is not ordinarily empowered to assign Nominative Case.

4.3 AGREEMENT

4.3.1 Patterns of agreement

Languages display a rich and interesting diversity in the patterns of agreement that they adopt. English has only subject-verb agreement (and antecedent-anaphora agreement, which we shall see in Unit 5); there are languages in which the verb agrees not only with the subject but also with a direct object or an indirect object, and sometimes even with a possessor. Furthermore, some languages display distinct patterns of agreement depending on whether the verb is transitive or intransitive: typically, in this pattern of agreement the transitive verb shows the same agreement marking with a direct object as the intransitive verb would show with the subject; additionally, the transitive verb may also mark agreement with its subject. This pattern of agreement is called **ergativity,** or the **ergative-absolutive** pattern of agreement.

4.3.2 The agreement element AGR

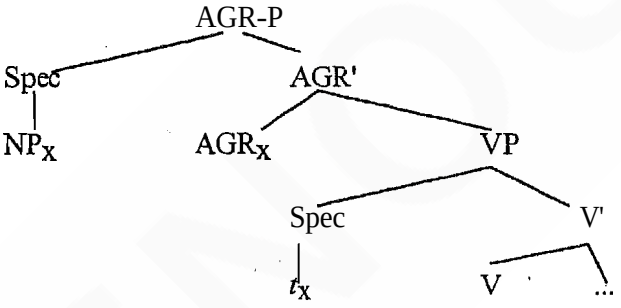
A finite inflected verb may be morphologically marked for agreement with the subject, particularly for the Present-tense third-person singular. Moreover, in a number of languages a pronominal subject can be dropped altogether if its person and number (and sometimes gender) features can, for all numbers and persons, be inferred from the morphological agreement marking on the inflected verb. This has led to the

postulation of an element AGR, which can be morphologically expressed as agreement marking, as a component of the verbal inflection element INFL.

4.3.3 AGR as Case-assigner

Like Tense, AGR also possesses the ability to assign Case -- the difference is that, in the case of AGR, Case is assigned through the coindexing of AGR with the relevant NP. In English, AGR also happens to occur as part of the INFL element of FINITE clauses alone -- non-finite verb-forms such as participles and infinitives do not display any morphological agreement with their subject. However, since AGR is a category of Universal Grammar, and since there are languages in which even non-finite verb-forms and predicate adjectives often carry agreement with the subject of the clause, the need has increasingly been felt to separate out AGR as a distinct functional head with its own maximal projection, AGR-P. The subject of such a verb-form can be assigned Nominative Case through coindexation with the AGR head element, as follows:

(8)

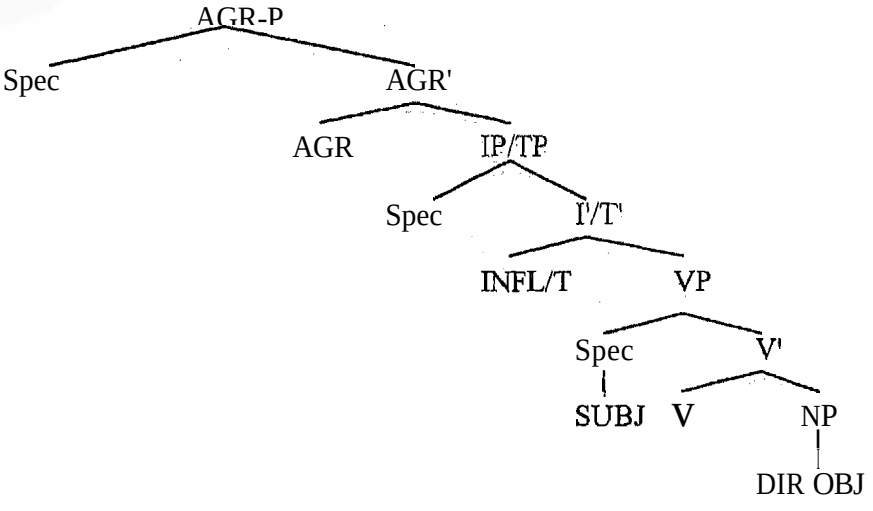


After the subject has moved upward from the Spec of VP into the Spec of AGR-P, it gets Case through coindexation with AGR. Thereafter, the AGR element and the verb V can undergo Affix-Hopping to combine into a single inflected morphological word.

4.4 CONCLUSION

As more and more evidence on Tense and agreement has come to light through research on a wide variety of languages, it has been felt necessary to split the INFL head into at least two distinct functional head elements T (for Tense) and AGR (for agreement), with their own maximal projections TP and AGR-P, respectively. The following kind of cross-linguistic tree representation has therefore been proposed by Chomsky (1991) and others:

(9)



Given this kind of tree representation, a finite inflected verb is assumed to acquire agreement and Tense through upward head-to-head movement: the verb first moves up to the T (or INFL) head where it acquires Tense, and then the V-T combination again moves upward to the AGR head where it acquires morphological agreement. Whether the movement is covert or overt movement, however, depends on the specific language. In English, there is some evidence that verb movement is covert -- i.e., takes place at a level of interpretation of the inflected verb -- rather than being overt, i.e., actually undergoing physical movement upward.

4.5 LET US SUM UP

1. Verbal inflection (INFL) is a crucial syntactic element that carries the tense and agreement features of a finite verb.
2. The tense component of a finite INFL carries information on the time of an action relative to the time of utterance (or writing) of the sentence or clause.
3. Aspect is different, in that it carries information on the status of completion or progression of the action or state expressed by the verb in the sentence or clause.
4. The agreement component AGR of a finite INFL encodes person and number agreement of the (finite) verb with the subject.
5. Usually T (i.e., Tense) and AGR (i.e., Agreement), but not Aspect, can function as Case-assigners.
6. Non-finite (i.e., participial or infinitival) INFL cannot therefore assign Case.
7. AGR assigns Case to the subject through the special device of coindexation with it.

4.6 KEYWORDS

AGR: The syntactic constituent corresponding to agreement marking in verbal inflection INFL.

Agreement: In English, the concord that is found in the inflectional marking of a (usually finite) verb with certain grammatical features such as number and person carried by the subject of that verb. Example: I *am* happy, Thou *art* happy, She *is* happy, but They are happy.

Aspect: The status of completion or progression of the action, process, or state expressed by a verb -- e.g., the difference between the present perfect Ram has eaten and the present progressive Ram is eating.

Auxiliary (verb): A "helping" verb that occurs in certain syntactic contexts alongside the main verb, usually to support the verbal inflection for tense and agreement -- e.g., the auxiliary has in Ram *has* left is in the present-tense third-person singular form'.

INFL: The syntactic symbol corresponding to verbal inflection, especially tense and agreement inflection; the functional head of a clause (IP).

Inflection:	One of the two major kinds of morphological marking found on words (the other being derivation); in English syntax, it refers specifically to verbal inflection.
Modal (auxiliary):	**A** special kind of verb that expresses necessity, ability, possibility, or doubt, and occurs alongside the main verb in **a** clause, as in ***(I** doubt **whether)** Sita can come today.*
T(ense):	The marking of a verb for the time of the action, process or state expressed by the verb relative to some specific time of reference, usually the time of utterance of the sentence or clause.

4.7 BIBLIOGRAPHY

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4.8 QUESTIONS & EXERCISES

1. Provide some syntactic arguments why INFL should be considered a syntactically significant element (and not merely a morphologically significant one).

2. We have seen that finite INFL carries both tense and agreement. Is it possible for any finite verb-form to change according to tense alone if its agreement features are kept constant (e.g., third-person singular)?. If so, give examples. If not, say why. Conversely, is it possible for any finite verb-form to change according to its agreement features if the tense is kept constant (e.g., Present tense)? If so, give examples. If not, say why.

3. Do you think English verbal inflection justifies the breaking up of INFL into two separate syntactic head types T and AGR, with their own maximal projections? Give one or more arguments in support of your answer.

NOTES ON "**QUESTIONS & EXERCISES**"

1. Substitution: "**Are** you leaving?" -- "Yes, I ***am."***
   Conjoining: John can, and *will*, finish all the work today.

Distribution: John likes fishing. John does not like fishing. *Does* John like fishing? Yes, John does like fishing.

2. Yes: walked, walks, will walk; comes, came, will come.
Yes: am, (art,) is, are, are, are; go, (*goest*,) goes, go, go, go.

3. Argument against: Only finite INFL has both tense and agreement in English; non-finite INFL does not.
Arguments in favour: Morphologically T and AGR are separable elements; moreover, AGR assigns Case through coindexation, whereas T does not.