

Chapter 6. Inflectional Phrases

1 Introduction

An inflectional phrase (IP) is a syntactic level that assigns the inflection information (e.g., agreement, tense, (grammatical) aspect, and mood, etc.) to a verb phrase. Agreement (also called concord) is a grammatical relationship where one element's form changes to match features of another element in the sentence. Tense is a grammatical category that locates an event in time relative to the moment of speaking. (Grammatical) aspect is a grammatical category that anchors an event in time relative to a reference time. Mood is a grammatical category that expresses the speaker's attitude toward a proposition, or how the speaker presents the event in terms of reality, possibility, necessity, command or desirability.

In this chapter, we examine tense (PAST, PRESENT, and FUTURE), aspect (PERFECTIVE, PROGRESSIVE, and HABITUAL), perfect, and (inflectional) mood (INDICATIVE, IMPERATIVE, SUBJUNCTIVE, and CONDITIONAL), along with their conjugation patterns in Catalan. We begin by introducing these concepts using English as a point of reference, and subsequently turn to Catalan.

2 Introducing tense, aspect, perfect and mood: English as an example

We introduce tense, aspect, perfect, and mood using English as an example. Among these concepts, tense, aspect and perfect are more closely related to each other than to mood. On the one hand, tense, aspect and perfect are defined with respect to three temporal points/intervals:

- Event time (E): when the event actually occurs,
- Speech time (S): when the sentence is uttered, and
- Reference time (R): the temporal perspective from which the event is viewed.

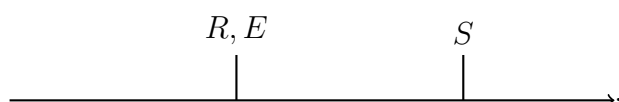
In English, verbal inflections encode the PAST tense and the PRESENT tense (more precisely, the NON-PAST tense), while the FUTURE reading is indicated periphrastically. Aspectual distinctions, including PERFECTIVE, PROGRESSIVE, and HABITUAL, are generally read off from (semi-)periphrastic constructions or remain unmarked. Moreover, PERFECT is expressed through *have done* constructions.

On the other hand, mood expresses the speaker's attitude. Different from Catalan, moods including INDICATIVE, IMPERATIVE, SUBJUNCTIVE, and CONDITIONAL in English are not all grammaticalized or partially grammaticalized into verb inflections, but null marked or with the help of modal verbs.

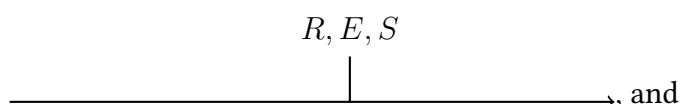
2.1 Tense

Tense locates the reference time (R), which equals to the event time (E), relative to the speech time (S), including (R and E can be punctual or durative, and S means *now*):

- PAST: R and E precede S ($R, E < S$):



- PRESENT: R and E coincide with S ($R, E = S$):



- FUTURE: R and E follow S ($S < R, E$):



English distinguishes PAST and NON-PAST (including PRESENT and FUTURE) in verb inflections. In general, the suffix *-ed* marks the PAST tense and NON-PAST is zero-marked (except for agreement with a 3SG subject), as in (1).

- (1) a. Guang cooked the meat yesterday. (PAST)
 b. Yifan exercises a lot. (NON-PAST for present)
 c. Jian comes back home in one hour. (NON-PAST for future)

The future reading in English can be periphrastically indicated by the modal verb *will*, which, however, is not a strict marker of FUTURE tense because it can also convey modal meanings such as generalization, rather than future time reference, as in (2).

- (2) Love will be love. (generic reading)

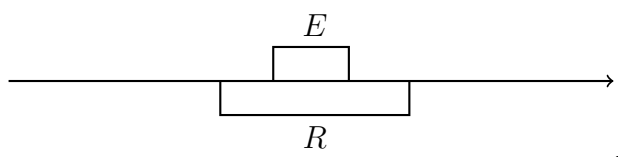
Moreover, the NON-PAST tense can also give rise to the generic reading with bare plural subjects or the ability/property reading of the subject, as in (3).

- (3) a. Dogs bark. (generic reading)
 b. Guang cooks. (ability reading)
 c. This book reads easily. (property reading)

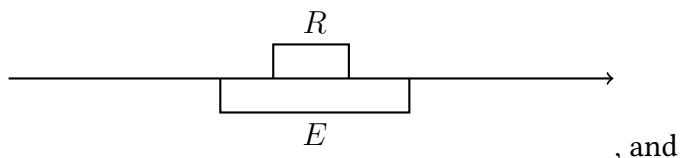
2.2 Aspect

Aspect (or viewpoint aspect) locates the event time (E) relative to the reference time (R), including (both E and R can be punctual or durative):

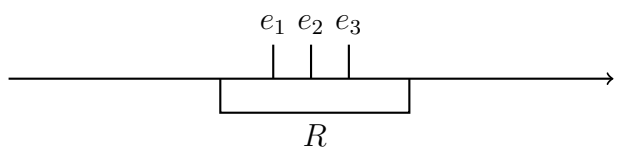
- PERFECTIVE: E is contained by R ($E \subseteq R$):



- PROGRESSIVE: R is contained by E ($R \subseteq E$):



- HABITUAL: Repeated Es, such as e_1, e_2, e_3 , are contained by R ($e_1, e_2, e_3 \subseteq R$):



The PERFECTIVE aspect views an event as bounded, such that it terminates within the reference time interval. In contrast, the PROGRESSIVE and HABITUAL are subtypes of IMPERFECTIVE, which views the event(s) as unbounded: PROGRESSIVE denotes an event ongoing at

the reference time, and HABITUAL denotes events that occur regularly relative to the reference time.

In English, first, PERFECTIVE is not morphologically marked and is typically inferred from the PAST tense or the modal verb *will*, as in (4).

- (4) a. Guang cooked the meat (yesterday). (PERFECTIVE with PAST)
 b. Guang will cook the meat (tomorrow). (PERFECTIVE with *will*)

Second, PROGRESSIVE is expressed by *be + V-ing* constructions, although these constructions are not required to indicate PROGRESSIVE, as in (5).

- (5) a. Yifan was wandering in the park at 3 p.m. yesterday. (PROGRESSIVE with PAST)
 b. Yifan is wandering in the park now. (PROGRESSIVE with NON-PAST)
 c. Yifan will be wandering in the park at 3 p.m. tomorrow. (PROGRESSIVE with *will*)
 d. Jian is coming back home in one hour. (future reading with punctual verbs)

Third, HABITUAL is encoded periphrastically by *used to* for the PAST, but can also be read off without it, as in (6).

- (6) a. Jian used to come back home at 3 a.m. (HABITUAL with *used to*)
 b. (Before,) Jian came back home at 3 a.m. every morning. (HABITUAL with PAST)
 c. Jian reads an English text every night. (HABITUAL with NON-PAST)
 d. Jian will drink a cola every week. (HABITUAL with *will*)

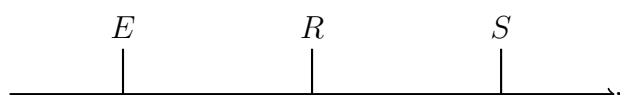
The difference between (6a) and (6b) is that, the PAST form of *used* in (6a) enforces a PERFECTIVE reading of the habitual state, presenting it as a bounded event in the past that no longer holds (i.e., Jian no longer comes home at 3 a.m.). By contrast, in (6b) without *before*, the habitual situation may still be ongoing, allowing for the possibility that Jian continues to come home at that time.

All in all, while PROGRESSIVE is expressed by *be + V-ing* constructions and PAST HABITUAL is marked by *used to*, by contrast, PERFECTIVE and other HABITUAL readings are largely derived from contexts. In neutral contexts, PAST and NON-PAST with *will* tend to yield a PERFECTIVE reading, whereas in the presence of habitual temporal expressions, a HABITUAL reading arises. These are applicable to eventive/dynamic predicates including ACTIVITY, ACCOMPLISHMENT and ACHIEVEMENT.

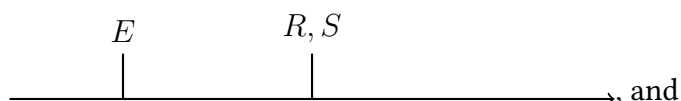
2.3 Perfect

PERFECT is similar to the PERFECTIVE aspect in that it presents an event (E) as bounded and completed, which terminates before the reference time (R). However, unlike the PERFECTIVE, PERFECT can also be interpreted as a state that persists and has relevance for the situation at the reference time (R).

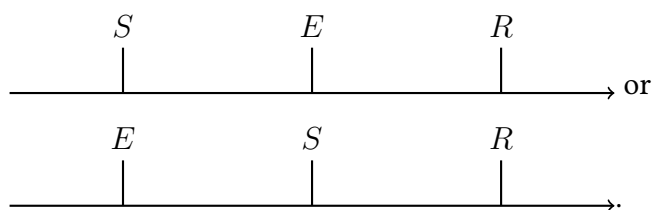
- PAST PERFECT: E precedes R and R precedes S ($E < R < S$):



- PRESENT PERFECT: E precedes R and R coincides with S ($E < R = S$):



- FUTURE PERFECT: R follows both E and S ($E < R$ and $S < R$):

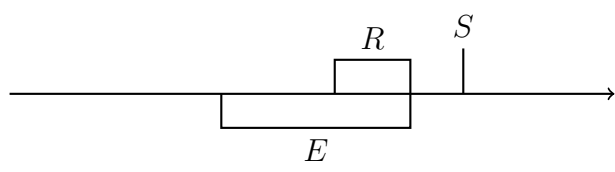


In English, PERFECT is expressed by *have + V-ed*. While English does not morphologically distinguish between PRESENT and FUTURE, PERFECT with the NON-PAST tense is usually interpreted as PRESENT PERFECT, whereas PERFECT with *will* is interpreted as FUTURE PERFECT, as in (7).

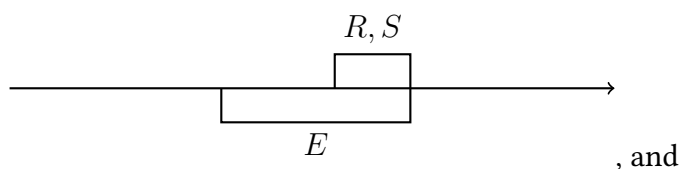
- (7) a. Guang had cooked the meat when Jian came back home. (PAST PERFECT)
 b. Yifan has eaten an apple today. (PRESENT PERFECT)
 c. Guang and Yifan will have finished the game when the class starts tomorrow. (FUTURE PERFECT)
 d. By the age of 30, Jian will have visited over 20 countries. (FUTURE PERFECT)

Moreover, English also has PERFECT PROGRESSIVE constructions, expressed by *have + been + V-ing*.

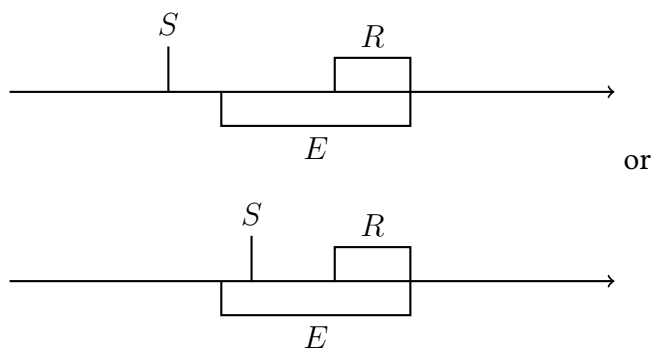
- PAST PERFECT PROGRESSIVE: E contains and overlaps R at the right edge and R precedes S ($E \supset R < S$):



- PRESENT PERFECT PROGRESSIVE: E contains and overlaps R at the right edge and R coincides with S ($E \supset R = S$):



- FUTURE PERFECT PROGRESSIVE: E contains and overlaps R at the right edge and R follows S ($E \supset R$ and $S < R$):



- (8) a. He had been working for two hours when they arrived. (PAST PERFECT PROGRESSIVE)
 b. She has been working for eight hours today. (PRESENT PERFECT PROGRESSIVE)
 c. They will have been working for two hours by 5 p.m.

- (FUTURE PERFECT PROGRESSIVE)
- d. They will have been working here for ten years by 2030.
- (FUTURE PERFECT PROGRESSIVE)

2.4 STATE predicates

Things are different for STATE predicates. The PERFECTIVE, PROGRESSIVE and HABITUAL readings typically describe events rather than states. As a result, the interpretation of STATE predicates is more closely tied to tense (but sometimes also aspect).

The NON-PAST tense indicates that the state holds in a non-past time, which does not reflect the situation in the past, as in (9).

- (9) a. He likes the job/concert. (*liking* state anchored in present and future)
 b. He will like the job/concert. (*liking* state anchored in future)

On the other hand, complexity arises for PAST tense. First, when the object has a stable or inherent property, PAST behaves similarly to NON-PAST in anchoring the state in the past, which is assumed to persist up to the present, though not necessarily, as in (10).

- (10) a. He liked the job, and continues to like it. (*liking* state holding)
 b. He liked the job, but not any more. (*liking* state canceled)
 c. The job was good, and it still is. (*good* state holding)
 d. The job was good, but not any more. (*good* state canceled)

Second, when the object is a one-time event, it forces the PAST tense to have a PERFECTIVE reading, presenting the event as an established fact whose result continues to hold at present, as in (11).

- (11) a. He liked the concert, and continues to like it. (*liking* state holding)
 b. *He liked the concert, but not any more. (**liking* state canceled)
 c. The concert was good, and it still is. (*good* state holding)
 d. *The concert was good, but not any more. (**good* state canceled)

Moreover, when *used to* is employed, as mentioned in section 2.2, the state is necessarily interpreted as terminated and no longer holding at present, as in (12).

- (12) a. *He used to like the job, and continues to like it. (**liking* state holding)
 b. He used to like the job, but not any more. (*liking* state canceled)
 c. *He used to like the concert, and continues to like it. (**liking* state holding)
 d. He used to like the concert, but not any more. (*liking* state canceled)

PERFECT can also apply to STATE predicates. In PAST PERFECT, the state is typically interpreted as no longer holding at the reference time, whereas in PRESENT PERFECT, it is understood as still holding at the speech time (also reference time). In FUTURE PERFECT, the state is interpreted as relevant to a reference time in the future.

- (13) a. He had liked the job/concert. (*liking* state canceled)
 b. He has liked the job/concert. (*liking* state holding)
 c. He will have liked the job/concert. (*liking* state anchored in future)

2.5 Mood

Mood is a grammatical category that expresses the speaker's attitude toward a proposition, or the way an event is presented in terms of reality, possibility, necessity, command or desirability. Commonly recognized moods include the INDICATIVE, INTERROGATIVE, IMPERATIVE,

SUBJUNCTIVE, CONDITIONAL, INJUNCTIVE, OPTATIVE, and IRREALIS/POTENTIAL. English has INDICATIVE, SUBJUNCTIVE, CONDITIONAL, and IMPERATIVE moods.

2.5.1 INDICATIVE

The INDICATIVE mood is a kind of the REALIS mood, which is used principally to indicate that something is a statement of fact; in other words, to express what the speaker considers to be a known state of affairs. Modern English does not have other REALIS moods, and the INDICATIVE mood is the default one:

- (14) a. The spine-tailed swift flies faster than any other bird in the world.
 b. The Missouri and Mississippi Rivers rose to record heights in 1993.
 c. Mid-westerners will remember the flooding for many years to come.

Some forms of the INDICATIVE can be used with *do*, *does*, or *did* (i.e., *do*-support in English), either for emphasis (15), or to form questions (16), negatives (17) or negative inversions (18).

- (15) a. They do like the classes given by the new teacher.
 b. The human brain does process language in remarkably complex ways.
 c. That old building did survive the earthquake against all expectations.
- (16) a. Do bilingual speakers process syntax differently from monolinguals?
 b. Does this method produce more reliable results in experiments?
 c. Did the experiment confirm the original hypothesis?
- (17) a. I do not drink any coffee at all.
 b. This region does not receive much rainfall in the summer months.
 c. That species did not adapt well to the changing environment.
- (18) a. Only here do I feel at home.
 b. Rarely do students understand this concept immediately.
 c. Seldom does he make mistakes in his analysis.
 d. Never does he wake up early in the morning.
 e. At no time did they consider abandoning the project.
 f. Not only did the experiment fail, but it also raised new questions.

2.5.2 SUBJUNCTIVE

SUBJUNCTIVE forms of verbs are typically used to express various states of unreality, such as wish, emotion, possibility, judgment, opinion, obligation, or action that has not yet occurred. The subjunctive is one of the IRREALIS moods, which refer to what is not necessarily real. It is often contrasted with the INDICATIVE, a REALIS mood which principally indicates that something is a statement of fact.

In Modern English, the SUBJUNCTIVE is realized as a finite but tenseless clause where the main verb occurs in the bare form. Since the bare form is also used in a variety of other constructions, the English SUBJUNCTIVE is reflected by a clause type rather than a distinct inflection.

SUBJUNCTIVE clauses most commonly appear as clausal complements of non-veridical operators. The most common use of the English SUBJUNCTIVE is the *mandative* or *jussive* SUBJUNCTIVE, which is optionally used in the clausal complements of some predicates whose meanings involve obligation, command or desirability, as in (19). Note that no *do*-support is needed for the SUBJUNCTIVE in the negative versions (19b), (19d), and (19f).

- (19) a. We **demand** that it be done tomorrow.
 b. My **recommendation** is that they not be here.
 c. I **insisted** that he leave us alone.
 d. I **suggested** that he not receive any more funding.
 e. It is **crucial** that he be here by noon.
 f. It will be **vital** that he not arrive late.

The trigger contexts for the SUBJUNCTIVE in Modern English is not limited to obligation predicates, but also include other non-veridical ones, such as *lest*, which generally expresses a potential adverse event, and *in order that* in certain cases.

- (20) a. I am running faster **lest** they catch me / **in order that** they not catch me.
 b. I was worried **lest** they catch me / that they might catch me.

Similar triggers can be found in (21).

- (21) a. Your purpose, then, plainly stated, is that you will destroy the Government, **unless** you be allowed to construe and enforce the Constitution as you please, on all points in dispute between you and us. (Abraham Lincoln, *Cooper Union speech*, 1860)
 b. **Whoever** he be, he shall not go unpunished.

There are also some relatively fixed SUBJUNCTIVE constructions from Old English, which generally include a subject-predicate inversion, as in (22).

- (22) a. He may be right, but **be that as it may** [even so], we must continue.
 b. **Be it ever so** [even if it is] humble, there's no place like home.
 c. **Suffice it to say** [it is enough to say], everyone was shocked.
 d. **Far be it from me** [I would not presume] to criticize your decision.
 e. We'll finish this project, **come what may** [whatever happens].
 f. **Be it** [no matter it is] intentional **or** accidental, the teacher was angry.

There is also the subject-auxiliary inversion in other cases, as in (23).

- (23) a. **Should you** [if you] feel hungry, there is food in the fridge.
 b. **Be he called on** [no matter he is called on] by God or by men, he must answer.

In Modern English, there is another type of SUBJUNCTIVE called the COUNTERFACTUAL SUBJUNCTIVE, which will be discussed together with CONDITIONAL in the next section.

2.5.3 (Hypothetical/counterfactual) CONDITIONAL

CONDITIONAL refers to a construction used to express a relationship between two propositions: a condition and its consequence. It can be real/factual, or hypothetical/counterfactual, as in (24).

- (24) a. If water reaches 100°C, it boils.
 b. If I were you, I would not drink the boiling water.

In this part, we focus on the hypothetical/counterfactual CONDITIONAL (also a subtype of IRREALIS), in which the antecedent (protasis) uses the COUNTERFACTUAL SUBJUNCTIVE mood, and the consequent (apodosis) uses the CONDITIONAL mood.

The NON-PAST COUNTERFACTUAL SUBJUNCTIVE is realized as *were* for the copula and as the PAST form or the *were to V* form for other verbs, and the corresponding CONDITIONAL is periphrastically expressed with *would + V*, as shown in (25).

- (25) a. If it were raining in Barcelona, there would be nobody on the street.
b. If you treated/were to treat me sincerely, I would do the same to you.

On the other hand, the PAST COUNTERFACTUAL SUBJUNCTIVE is realized as *had + V-ed*, while the CONDITIONAL is expressed as *would have + V-ed*, as exemplified in (26).

- (26) a. If you had slept well last night, you would not have got up so late this morning.
b. If you had respected me, I would have sensed it.

Moreover, the subject-auxiliary inversion can be applied as in (27), and the subject-verb inversion only appears with *were* as in (28).

- (27) a. Were it raining in Barcelona, there would be nobody on the street.
b. Had you respected me, I would have sensed it.

- (28) a. Were I you, I would follow whatever the teacher says.
b. Were you to treat me sincerely, I would do the same to you.

Importantly, the protasis is not required to be explicitly expressed by the *if*-clause. Instead, it can be introduced by other counterfactual information or from context, as in (29).

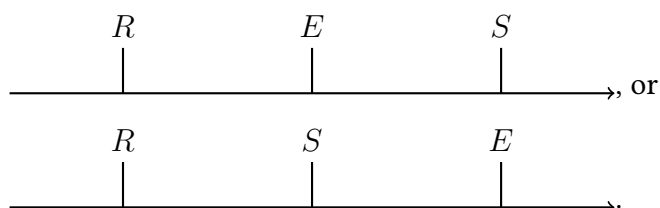
- (29) a. One would not be able to make it without long dedication.
b. A rose by any other name would smell as sweet.
c. I would never say that (under any circumstance).
d. I would help you (if anything severe happened).

It is also possible that the COUNTERFACTUAL SUBJUNCTIVE is used in the sub-clause of certain verbs, as in (30).

- (30) a. I wish that he did not know it.
b. I wish that he were not here.
c. I wished that he had not known it.
d. I wished that he had not been here.

Another important use of *would + V* or the CONDITIONAL mood is to encode a future event viewed from a past reference point, where the reference time (R) precedes both the event time (E) and speech time (S):

- CONDITIONAL: R precedes both E and S ($R < E$ and $R < S$):



- (31) a. A week ago, the landlord told me that he would come yesterday.
b. He promised me that he would learn better English in the following years.

2.5.4 IMPERATIVE

The IMPERATIVE mood is used to demand or require that an action be performed. It is sometimes called *directive*, as it includes a feature that encodes directive force, and another feature that encodes modality of unrealized interpretation.

It is usually found only in the PRESENT (or NON-PAST) tense with the second person. The IMPERATIVE form is the same as the INFINITIVE form as in (32).

- (32) a. (You) be careful.
b. (You) fake it until you make it.
c. (You) don't touch that.

However, the subject is not necessarily in second person, and can be explicitly expressed by other words, as in (33).

- (33) a. Everybody listen carefully.
b. Someone call an ambulance.