

A Syntactic Analysis of Instrumental Prepositional Phrases*

Montserrat Pascual Pou

Universitat Autònoma de Barcelona. Departament de Filologia Catalana
08193 Bellaterra (Barcelona). Spain
mpascual@seneca.uab.es

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Abstract

This paper deals with those Catalan and Spanish Prepositional Phrases (PP), introduced by the prepositions *amb* (Catalan) - *con* (Spanish), that designate the instrument used to carry out the action expressed by the verb. I analyse them as a small clause that has a dyadic predicate: the preposition. I propose that the Instrumental PP forms an independent derivation that must merge with a verbal syntactic derivation in order to get licensed. Finally, I suggest that the minimalist analysis I propose for Instrumental PP can be extended to some Comitative PP.

Key words: Instrumental PP, Comitative PP.

Resum. *Una anàlisi sintàctica dels Sintagmes Preposicionals Instrumentals*

Aquest article tracta d'aquells Sintagmes Preposicionals (SP) del català i de l'espanyol, encapçalats per les preposicions *amb* (català) - *con* (espanyol), que designen l'instrument que es fa servir per dur a terme l'acció expressada pel verb. Els analitzo com una oració reduïda que conté un predicat diàdic: la preposició. Proposo que el SP Instrumental forma una derivació independent que s'ha de fusionar amb una derivació sintàctica verbal per tal de quedar legitimat. Finalment, suggereixo que l'anàlisi minimalista que proposo per als SP Instrumentals es pot estendre a determinats SP Comitatus.

Paraules clau: SP Instrumental, SP Comitatiu.

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1. Introduction

In this paper I am going to focus my attention on those Prepositional Phrases (PP), headed by the prepositions *amb* (Catalan) - *con* (Spanish), that designate the instrument used to carry out the action expressed by the verb¹. These Instrumental PP have traditionally been classified as *circumstantial complements* in Romance grammars and as *oblique* or *adverbial ones* in Germanic grammars. Most grammars establish that these *adjuncts* or *circumstantial complements* are not required by the verb (see, for example, Quirk et al. (1988:730)). As they are optional complements, if they do not appear, the sentence is still grammatical, as can be seen in (1).

1. In fact, in Romance languages such as Catalan and Spanish, the instrument used to carry out the action encoded by the verb can be expressed in a variety of ways. Apart from being introduced by the prepositions that are the subject-matter of this paper and being realized as a DP in the subject position, the instrument can be introduced by the prepositions *per* (Catalan) - *por* (Spanish) (see (ia)), it can appear as the direct object of a verb such as that of (ib), it can be expressed by an adjective as illustrated in (ic), it can be expressed by the verb itself (see (id)) and it can be introduced by the negative preposition *sense* (Catalan) - *sin* (Spanish) (see (ie)).

(i) a. En la guerra fue herido *por una granada*. (Spanish)
in the war was wounded by a grenade
 'In the war, s/he was wounded by a grenade.'

(Taken from Porto Dapena (1993)).

b. La Gemma *fa servir* el meu ordinador *per escriure*. (Catalan)
the Gemma does use the my computer to write
 'Gemma uses my computer to write.'

c. Faran una revisió *microscòpica*. (Catalan)
make-fut a revision microscopic
 'They will make a microscopic revision.'

d. En Dalton *va serrar* els barrots de la garjola. (Catalan)
the Dalton Past-aux saw the bars of the prison
 'Dalton sawed the bars of the prison.'

e. María lava los vestidos *sin detergente*. (Spanish)
María washes the dresses without soap
 'María washes the dresses without soap.'

I am going to leave all these cases aside and I will focus my attention on the Instrumental PP introduced by the prepositions *amb* (Catalan) - *con* (Spanish).

- (1) a. En Carles va boicotejar la representació *amb els seus*
the Carles Past-aux boycott the play with the his
*crits*_{INSTRUMENTAL} (Catalan)
screams
 ‘Carles boycotted the play with his screams.’
- b. En Carles va boicotejar la representació.

However, as noted by different authors (see, for example, Bosque (1989:136)), circumstantial complements are not as free as they have been said to be. This explains why we cannot have an Instrumental PP in a sentence like the one in (2).

- (2) *Paul loves music *with his glasses*_{INSTRUMENTAL}²

Moreover, similarly to what happens to arguments, an Instrumental PP can agree with the verb in some languages (see (3)), it can cliticise like an argument (see (4)) and it can be incorporated into the verb (see (5)).

- (3) A-zhah’a s-a- la -ye -seyt. (Abjasian)
the hammer 1sg- 3sg -with -3sghuman-hit
 ‘I hit him with a hammer.’

(Taken from Moreno Cabrera (1991:439)).

- (4) Amb aquesta clau, en Xavi *hi* obre la porta cada dia. (Catalan)
with this key, the Xavi cl opens the door every day
 ‘With this key, Xavi opens the door every day.’

- (5) a. Fisi a- na- *dul-* a chingwe *ndi* mpeni.
 (Chichewa, Bantu)
hyena SP- PAST- CUT- ASP rope with knife
 ‘The hyena cut the rope with a knife.’

- b. Fisi a- na- *dul- ir-* a mpeni chingwe.
hyena SP- PAST- cut -with -ASP knife rope
 ‘The hyena cut the rope with a knife.’

(Taken from Baker (1988:238)).

Basing on the facts illustrated above, I will claim that the Instrumental PP is an optional complement that, when present, is narrowly related to the verb because it takes part in the predication. Therefore, in section 4, I will propose that the Instrumental PP should be analysed as a predicative structure that only gets licensed if it merges with a verbal predicative structure in the phase dominated by *v*. Before

2. This sentence is grammatical if it means *only when Paul wears glasses, he loves music*. In this case, the PP *with his glasses* is not interpreted as the instrument that Paul uses to carry out the action expressed by the verb. I am going to leave this interpretation aside.

doing so, I will review Marantz's (1984) distinction between two types of Instrumental PP and, in section 3, I will highlight the difficulty of defining what a causative verb is. After presenting a syntactic analysis in minimalist terms of the Instrumental PP, I will suggest that this analysis can be extended to certain Comitative PP.

2. Intermediary vs. Facilitating Instruments

When looking at examples like those in (6) and (7), one realizes that not all Instrumental PP behave alike.³

- (6) a. En Xavi obre la porta *amb la clau rovellada*. (Catalan)
the Xavi opens the door with the key rusty
 'Xavi opens the door with the rusty key.'
- b. *La clau rovellada* obre la porta.
the key rusty opens the door
 'The rusty key opens the door.'
- (7) a. L'avi menja la sopa *amb la cullera de fusta*.
 (Catalan)
the grandfather eats the soup with the spoon of wood
 'The grandfather eats the soup with the wooden spoon.'
- b. **La cullera de fusta* menja la sopa.⁴
the spoon of wood eats the soup
 'The wooden spoon eats the soup.'

Both in (6a) and (7a), there is an Instrumental PP introduced by the same preposition, *amb*. However, only the instrument designated in (6a) can appear as a DP in the subject position of the sentence (see the contrast between (6b) and (7b))⁵.

Referring to examples similar to those in (6) and (7), Marantz (1984:246) states that what is normally referred to as Instrumental lumps together different sorts of complements. In (6), *la clau rovellada* ('the rusty key') is an *Intermediary Instrumental* (also called *Intermediary Agent* or simply *Instrumental Phrase*) in

3. Although the examples are from Catalan, the argument is extensible to Spanish as well as to other Romance languages and English.
4. This sentence is grammatical if it refers to an imaginary world where spoons are alive and can act volitionally on other entities. In such interpretation, *la cullera de fusta* would be analysed as an Agent, similarly to *l'avi* ('the grandfather') in (7a).
5. It is important to note that in (6a) the verb expresses an activity in Vendler's (1967) terms. When the Instrumental appears in the subject position, the aktionsart of the verb changes and it turns to express a state. Thus, a sentence like (6b) expresses a property of the entity that appears in the subject position. When the sentence with the Instrumental subject expresses a state, the verb has got an imperfective tense.

the act of opening the door: Xavi acts on the rusty key and it is the rusty key that really opens the door.

On the other hand, although in (7) the wooden spoon is also an instrument in the act of eating, it is not an Intermediary one. Marantz (1984) calls this latter sort of Instrumental *Facilitating Instrument* (also called *Means Phrase* in Pascual (1999)). In other words, the grandfather acts on the spoon, but it is not the spoon the entity that eats the soup.

Marantz (1984) states that one of the basic differences between these two types of Instrumentals is that the former can appear as a PP and as a subject (see (6)), while the latter can only appear as a PP, never as a subject (see (7)).⁶

It should be noted, however, that an Instrumental PP is not Intermediary or Facilitating beforehand. For instance, in (7a) *la cullera de fusta* ('the wooden spoon') is interpreted as a Facilitating Instrument, whereas in sentences like the ones in (8), it is interpreted as an Intermediary Instrument:

- (8) a. En Vicenç va trencar el vidre *amb una cullera de fusta*. (Catalan)
the Vicenç Past-aux break the glass with a spoon of wood
 'Vicenç broke the glass with a wooden spoon.'
- b. Una cullera de fusta va trencar el vidre.
 'A wooden spoon broke the glass.'

Therefore, an Instrumental PP will be interpreted as Intermediary or as Facilitating depending on the semantic nature of the verb that licenses it. Basing on this fact and on the fact that Chomsky (1995, 1998) analyses all transitive verbs alike, I claim that it is not worth to maintain Marantz's (1984) distinction between two types of Instrumental PP in syntax. Thus, I propose that an Instrumental PP depending on a causative verb with a direct object as the one in (9a), an Instrumental PP depending on a causative verb with no explicit direct object (see (9b)), an Instrumental PP depending on an agentive verb followed by a direct object as

6. In fact, Fillmore (1968:22) already points out that a NP bearing Instrumental case can appear as the subject of a sentence. For instance, he states that a verb like *to kill* can have an Agentive or an Instrumental subject and he proposes the following feature frame for this verb:

(i) +[___ D (I) A] (D stands for Dative case, I stands for Instrumental case and A stands for Agentive case).

(i) states that there must be either an Instrumental, an Agentive or both, and as Fillmore (1968:33) points out, the preferred subject choice is the following:

(ii) If there is an A, it becomes the subject; otherwise, if there is an I, it becomes the subject; otherwise, the subject is O.

Fillmore (1968:28) also realizes that a verb like *to murder* accepts a NP with an Instrumental case, though it cannot appear as the subject. Therefore, *to murder* has got the following frame:

(iii) + [___ D (I) A]

depicted in (9c), an Instrumental PP depending on an agentive verb without an explicit direct object as the one in (9d) and an Instrumental PP depending on an unergative verb like the one in (9e), should deserve the same syntactic analysis.

- (9) a. En Xavi obre la porta *amb la clau rovellada*. (=6a) (Catalan)
 b. En Xavi obre *amb la clau rovellada*.
 ‘Xavi opens with the rusty key.’
 c. L’avi menja la sopa *amb la cullera de fusta*. (=7a)
 d. L’avi menja *amb la cullera de fusta / amb els dits*.
 ‘The grandfather eats with the wooden spoon / with the fingers.’
 e. El meu avi camina *amb un bastó*.
the my grandfather walks with a stick
 ‘My grandfather walks with a stick.’

3. Causative verbs

From last section, a question remains without an answer: What verbs can license both an Instrumental PP and an Instrumental subject? In other words, what is the difference between a verb like *trencar* (‘to break’), which licenses an Intermediary Instrumental PP and an Instrumental subject, and a verb like *menjar* (‘to eat’), which can only license a Facilitating Instrumental PP?

Various authors (Gruber (1965:281), Gràcia (1989a:69-71, 1989b:154), Rigau (in press:§15.3.2.1), among others) have pointed out that an Intermediary Instrumental PP only gets licensed if it depends on a causative verb⁷. By extension, only causative verbs like *trencar* (‘to break’) can have an Instrumental DP in the subject position, whereas agentive verbs like *menjar* (‘to eat’) cannot⁸. However, none of these works presents a steady definition of causative verb.

7. It seems as if another condition has to be fulfilled so that an Intermediary Instrumental PP can get licensed: the subject of the sentence must have the semantic feature [+Agentive]. This would explain why a sentence like (i) is ungrammatical, though it is syntactically perfect.

- (i) *La clau daurada obre la porta *amb una agulla*.
the key golden opens the door with a pin
 ‘The golden key opens the door with a pin.’

However, (ii) seems a counterexample to the statement that an Intermediary Instrumental PP needs an Agentive subject to be licensed.

- (ii) *The car* broke the window *with its fender*. (Taken from Fillmore (1968:23)).

As suggested by Fillmore (1968:22-23), the clue of (ii)’s grammaticality is the word *its*, since the most embedded Instrumental (*with its fender*) expresses an inalienable possession of the Instrumental subject. I will leave this issue aside. For a conceptual approach, see Pascual (1999).

8. I am not going to deal with Instrumental DP subjects in this paper. For a derivational approach to Instrumental subjects, see Gràcia (1989a, 1989b). For a non-derivational approach, see Pascual (1999).

Semantically speaking, it has widely been said that causative verbs involve two events (see, among others, Dowty (1979) and Levin & Rappaport Hovav (1996a)). The first event is regarded as the causing event and it includes the causer, which can be interpreted as an agent, an instrument or a natural force. This argument causes the second event, which expresses a change of state or a change of location of the entity that appears as the direct object of the verb.

In a localist approach such as Jackendoff's (1990), for instance, predicates are decomposed into different conceptual categories. A verb like *to break* or *to hit* contain a causative relation in their conceptual structure. However, a verb like *to eat* also includes a cause function (see (10)), which makes it really difficult to differentiate between a verb that licenses both an Instrumental subject and an Instrumental PP from a verb that only licenses an Instrumental PP.

- (10) [CAUSE ([_{Thing}]_A^α, [GO ([_{Thing}]_{<A>}, [TO [IN [MOUTH-OF [α]]]])]]]
 (Taken from Jackendoff (1990:253)).

From a syntactic point of view, different constructions have been presented as tests to determine whether a verb is causative or not. However, these tests are not exempt from problems. First, it has widely been said that causative verbs enter the causative alternation, also known as anticausative, inchoative or ergative variant (see (11)).

- (11) a. En Xavi obre la porta *amb la clau rovellada*. (Catalan) (=6a)
 'Xavi opens the door with the rusty key.'
 b. La porta s' obre.
the door cl opens
 'The door opens.'

However, there are verbs such as *desmaiar-se* ('to faint') that only have an ergative version (see (12)). Therefore, it is not an intrinsic characteristic of causative verbs to have an ergative version.

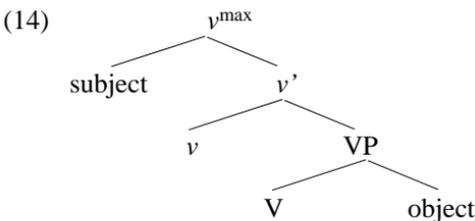
- (12) a. La Gemma s' ha desmaiat. (Catalan)
the Gemma cl has fainted
 'Gemma has fainted.'
 b. *{En Pere / la calor} ha desmaiat la Gemma.
the Pere the heat has fainted the Gemma
 '{Pere / the heat} has fainted Gemma.'

Another characteristic that has often been attributed to causative verbs is that they may have an Instrumental DP in the subject position (see (6b)). However, some verbs that can license an Instrumental PP and an Instrumental DP in the subject position do not have an ergative version (see (13c)):

- (13) a. Els pirates van creuar el Mediterrani amb la galera.
(Catalan)
the pirates Past-aux cross the Mediterrani with the galley
'The pirates crossed the Mediterrani with the galley.'
- b. La galera va creuar el Mediterrani.
the galley Past-aux cross the Mediterrani
'The galley crossed the Mediterrani.'
- c. *El Mediterrani es creua (ell sol).
the Mediterrani cl crosses it alone
'The Mediterrani crosses (himself).'

Tenny (1994), Morimoto (1998) or Jiménez & Marín (1999) among others, defend that the verb of (11) ('to open') is a verb of change of state and the verb of (13) ('to cross') is a path verb. Jiménez & Marín (1999), for instance, argue that only the former is a causative verb. Nevertheless, as illustrated above, the verb of (13) shares some syntactic properties with the verb of (11). Does this mean that one sort of verbs is more causative than the other? Although I will leave this question unanswered, this seems to be the case⁹. In other words, there are verbs that have a transitive variant with an Instrumental PP, an ergative version or a variant with an Instrumental subject. However, there are other verbs that can only appear in some of these constructions.

Although the contrast between (11) and (13) show that different sorts of verbs must be established, I am not going to differentiate between a verb of change of state and a path verb. What is more, since I want to suggest a syntactic analysis of the Instrumental PP in minimalist terms, I am not going to differentiate causative verbs from other transitive verbs in syntax, since Chomsky (1995, 1998) assumes that all transitive verbs have the syntactic structure of (14).



So far, I have described the syntactic behaviour of Instrumental PP, I have highlighted the problems one encounters when trying to define the notion of causative verb and I have presented the treatment that causative verbs receive in the mini-

9. It is at least curious to note that those Instrumentals that can appear as a PP and as a DP subject with verbs that do not have an anticausative version always designate vehicles. I leave this issue for further research.

malist framework. In the next section, I am going to present the syntactic analysis that I propose for the constructions that are the subject-matter of this paper.

4. The syntactic analysis

Following what Chomsky (1998) suggests in a footnote¹⁰, I assume that adjuncts are derived in parallel to the rest of the sentence. That is, a sentence like (6a), which I repeat below,

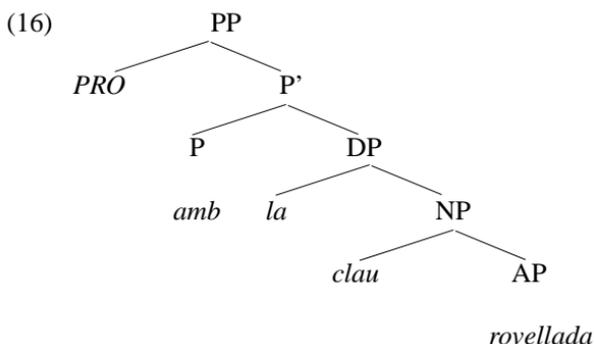
- (6) a. En Xavi obre la porta *amb la clau rovellada*. (Catalan)
the Xavi opens the door with the key rusty
 ‘Xavi opens the door with the rusty key.’

contains two derivations: the derivation of the Instrumental PP and the derivation of the rest of the sentence.

To obtain the Instrumental PP of (6a) (*amb la clau rovellada*), we take as a point of departure the numeration of (15):

- (15) $N = \{(PRO, 1), (amb, 1), (la, 1), (clau, 1), (rovellada, 1)\}$

Select will introduce the lexical items into the derivation and Merge will combine them into the syntactic object of (16).



Following Hale & Keyser (1993, 1997), I assume that the preposition *amb* (Catalan) - *con* (Spanish) is a dyadic predicate, which expresses a relation of central coincidence between two entities. As can be seen in (16), I claim that these

10. Chomsky (1998:24, fn.55): «Among other questions, what is the status of small clauses, or relative clauses and other adjuncts? Possibly the latter are derived “in parallel”, in the manner of multidimensional analyses of coordination or parentheticals, with their own LAs <Lexical Arrays> and the ultimate status of the adjunct determined in the larger structure in which it is inserted (as for other multidimensional structures)».

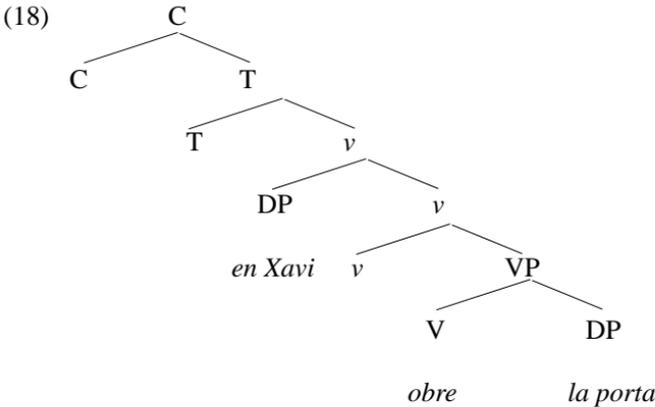
entities correspond to the empty category PRO, which appears as its specifier, and a DP, which appears as the internal argument.

The structure of (16) is a small clause: there is a predicate with its arguments and there is no temporal category that can license the predication. Therefore, similarly to small clauses, the syntactic object of (16) must adjoin to a verbal syntactic object in order to be licensed. Otherwise, it will crash.

Another derivation is obtained from the following numeration:

- (17) $N = \{(en, 1), (Xavi, 1), (obre, 1), (la, 1), (porta, 1), (SO_{16}, 1), (v, 1), (T, 1), (C, 1)\}$

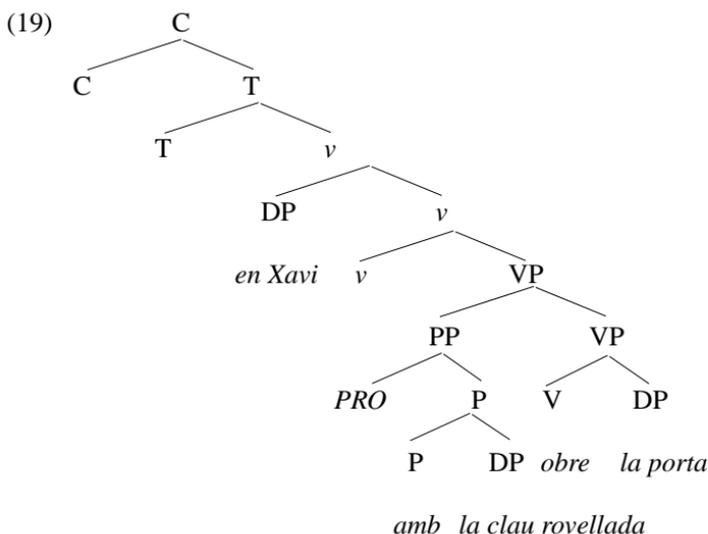
As can be seen in (17), the syntactic object represented in (16) (SO_{16}) is selected in this numeration. Had it not been selected, we would obtain the syntactic object of (18):



However, since the SO_{16} has been selected, we have to determine which phase the Instrumental PP belongs to. I propose that SO_{16} should merge in the phase dominated by the category v , that is, in the thematic phase where all θ -relations are satisfied by Pure Merge at the root. In fact, in section 1, I illustrated that Instrumental PP are quite closed to the verb since they can agree with it in some languages (see (3)), they can be represented by a resumptive pronoun (see (4)) and they can incorporate into the verb (see (5)). In contrast, adjuncts such as conditional sentences never show this syntactic behaviour.

I propose that the Instrumental PP should adjoin to the VP (see 19) in order to check an interpretable semantic feature F in Chomsky's (1998) terms¹¹.

11. I reject the possibility that the Instrumental PP merged to check a [-Interpretable] feature because the Instrumental PP may not appear in the sentence. If so, the [-Interpretable] feature would remain unchecked and undeleted and the derivation would crash. However, a sentence like (1b) (*En Carles va boicotejar la representació* 'Carles boycotted the play') shows that the sentence is perfectly grammatical without an Instrumental PP.



If the Instrumental PP did not appear in the sentence, the predicate would not be able to satisfy all its thematic requirements and the derivation should crash. However, I postulate that this semantic requirement is optional. Therefore, I propose that verbs that can license an Instrumental PP should contain an optional event argument in their thematic grid¹². In fact, Baker (1988:239) suggests the fact that an Instrumental is not obligatory does not block the possibility of being θ -marked by the verb. According to my hypothesis, a verb like *obrir* ('to open') would have the following semantic requirements:

(20) OBRIR ('to open'): {AG, Theme, (<e>)}¹³

In (19), the DP *en Xavi* controls the empty category PRO. Thus, the DP *en Xavi*, which is interpreted as an Agent, is indirectly related to the Instrumental DP. This analysis has the advantage that it reflects the action or causal chain. According to various authors (Croft (1991) and Langacker (1991), among others), a sentence

12. In fact, my proposal is not so different from what Chomsky (1998) suggests for verbs like *send*, since he proposes that those verbs have an optional selectional feature for the indirect object.

13. This proposal encounters an obvious problem: how many optional semantic arguments do we have to postulate for a sentence like (i)?

(i) En Joan *amb en Pere*_{COMITATIVE} busquen bolets *amb un bastó*_{INSTRUMENTAL}
 the Joan with the Pere look-for mushrooms with a stick
 al Montseny_{LOCATIVE} cada diumenge_{TEMPORAL}
 in the Montseny every Sunday
 'Joan looks for mushrooms with Pere with a stick in the Montseny every Sunday.'

To offer an adequate explanation for (i), a complete study of different adjuncts and their combination should be carried out. I leave this issue for further research.

like (6a) (*En Xavi obre la porta amb la clau rovellada* ‘Xavi opens the door with the rusty key’) encodes three participants: an Agent, an Instrument and a Patient. Between these three participants, there is an asymmetric transmission of force. That is, the Agent transmits its force to the Instrument, which, in turn, transmits it to the Patient. The directionality of the action chain is determined by the directionality of the transmission of force. In fact, the syntactic structure sketched out in (19) reflects the action chain since it relates the Agent with the Instrument.

According to Chomsky (1998), V raises overtly to *v* and, from there, it looks for a Goal to check its [-Interpretable] ϕ -features and its case feature. Apparently, there are two candidates to act as a Goal: the DP complement of the preposition (*la clau rovellada* ‘the rusty key’) and the DP direct object (*la porta* ‘the door’). Chomsky (1998: fn.88) suggests that Inherent case is distinct from Structural case and that Inherent case is invisible to matching because it inactivates the ϕ -set. According to this, the verb could only check its ϕ -features with the direct object. However, contrary to what Chomsky (1998) says, I suggest that Inherent case is not to be distinguished from Structural case at least in the derivation of the Instrumental PP. As we have seen, the SO_{16} is a parallel derivation where all the selectional requirements of the prepositional predicate must be satisfied. I suggest that the P checks the [-Interpretable] case feature, which is Inherent, of the DP *la clau rovellada* (‘the rusty key’). Following Chomsky (1986, 1995), I assume that PRO enters the numeration with f-features and a null case feature that does not have to be checked. Therefore, when the SO_{16} merges as an adjunct to the VP, the DP *la clau rovellada* does not have any case feature that can make the ϕ -features of this DP visible. Thus, these ϕ -features are not visible to the verb, which can only check the ϕ -features of the DP direct object (*la porta* ‘the door’)¹⁴.

5. An extension: some Comitative PP

Some Comitative PP, also introduced by the preposition *amb* (Catalan) - *con* (Spanish), show a similar syntactic behaviour to the Instrumental PP, as it is illustrated below. First of all, the Comitative PP of (21) has also been classified as an adjunct or circumstantial complement since its presence in the sentence is not obligatory (see (21b)).

14. Another possibility would be to check the ϕ -features of the direct object first and, later, merge the SO_{16} . However, according to Chomsky (1998), the semantic features of a predicate are the first thing that must be checked, since they are the ones that drive the merge operation.

My analysis would give the linear order of (i) as the unmarked one:

(i) *En Xavi obre amb la clau rovellada la porta.* (Catalan)
 ‘Xavi opens with the rusty key the door.’

To get the linear order of (6a) (*En Xavi obre la porta amb la clau rovellada* ‘Xavi opens the door with the rusty key’), the direct object *la porta* should move for some discursive reason and it should adjoin to the extra specifier position of *v*.

- (21) a. La Teresa prepara la reunió amb les becàries_{COMITATIVE}
 (Catalan)
the Teresa prepares the meeting with the scholarship holders
 ‘Teresa prepares the meeting with the scholarship holders.’
- b. La Teresa prepara la reunió.
 ‘Teresa prepares the meeting.’

Secondly, similarly to what happens with Instrumental PP, Comitative PP like the one in (21a) can be represented by a resumptive pronoun in some Romance languages:

- (22) Amb les becàries, la Teresa *hi* prepara la reunió.
with the scholarship holders the Teresa cl prepares the meeting
 ‘With the scholarship holders, Teresa prepares the meeting.’

Finally, the DP complement of the preposition *amb* of the Comitative PP can appear coordinated with the DP subject of the sentence (see (23)). In fact, some Instrumental DP can appear in the subject position of the sentence but cannot be coordinated with the DP subject (see (24))¹⁵.

- (23) La Teresa i les becàries preparen la reunió. (Catalan)
 ‘Teresa and the scholarship holders prepare the meeting.’
- (24) a. *La clau rovellada* obre la porta. (= (6b))
the key rusty opens the door
 ‘The rusty key opens the door.’
- b. *En Xavi i *la clau rovellada* obren la porta.
 ‘Xavi and the rusty key open the door.’

Basing on these facts, I suggest that Comitative PP of (21a) (*La Teresa prepara la reunió amb les becàries* ‘Teresa prepares the meeting with the scholarship holders’) should be analysed in the same terms as Instrumental PP. That is, the preposition *amb* should head a prepositional predicative structure that has the empty category PRO as its external argument and the DP *les becàries* as its internal argument. As I suggested for the Instrumental PP, this prepositional predicative structure will only get licensed if it merges with another syntactic object; that is, another derivation. Once merged, the DP *la Teresa* will control the empty category PRO¹⁶.

15. A further study of the differences between a Comitative and an Instrumental DP in the subject position of a sentence should be carried out. I will leave this issue for further research.
16. As an anonymous reviewer pointed out to me, if the analysis I propose turns out to be correct, it must be explained why we interpret some PP as Comitative and some as Instrumental. I leave this question unanswered and, for the moment, I assume that it is due to the different semantic interpretation of the DP complement of the preposition *amb*.

As it has been commented in the literature (see, for example, Badia i Margarit (1995) for Catalan and RAE (1991) for Spanish), a Comitative PP can appear next to the DP subject and the verb may show singular or plural number (see (25)).

- (25) a. El president *amb els dos vocals*
the president with the two members-of-the-council
 prepara_{SINGULAR NUMBER} el report. (Catalan)
preparaes the report
 'The president prepares the report with two members of the council.'
- b. El president *amb els dos vocals* preparen_{PLURAL NUMBER} el report.
 'The president prepares the report with two members of the council.'
 (Taken from Badia i Margarit (1995:219)).

The Comitative PP of (25) do not behave alike, since only in one of the constructions of (25) the Comitative PP can be represented with the resumptive clitic *hi*, as the examples below illustrate¹⁷:

- (26) a. El president *hi* prepara_{SINGULAR NUMBER} el report. (Catalan)
the president cl preparaes the report
 'The president prepares the report with them.'
- b. *El president *hi* preparen_{PLURAL NUMBER} el report.
 'The president prepares the report with them.'

Basing on this contrast, I suggest that, when the Comitative PP appears next to the DP subject and the verb shows singular number, the Comitative PP deserves the same syntactic analysis as an Instrumental PP and as the Comitative PP of (21a) (*La Teresa prepara la reunió amb les becàries* 'Teresa prepares the meeting with the scholarship holders'). The only difference is that the Comitative PP of (25a) has moved next to the subject for some discursive reason. In contrast, I suggest that the Comitative PP that appears next to the DP subject with a verb in plural deserves a different syntactic analysis, since it is tightly related to the DP subject.

6. Conclusions

In this paper, I have shown that Instrumental PP cannot be freely added to any sentence. In contrast, they present a syntactic behaviour that resembles arguments since they can be represented by a resumptive pronoun, they can agree with the

17. McNally (1993) offers other kinds of evidence from Russian to support the idea that, in a sentence parallel to that in (25b), the DP and the PP form a constituent. For instance, McNally states that, if the DP and the Comitative PP form a constituent, we will not be able to separate them. As (i) shows, that is the case:

(i) *El president preparen_{PLURAL NUMBER} el report amb els dos vocals. (Catalan)
 'The president prepare the report with two members of the council.'

verb and they can incorporate into the verb. Moreover, Instrumental PP only alternate with Instrumental subjects if they depend on a causative verb.

After stressing the fact that the notion causative verb is not a well-defined notion, I have presented a syntactic analysis in minimalist terms of Instrumental PP. In fact, I have taken pains to show that this PP is a prepositional predicative structure that gets licensed if and only if it merges with another derivation that contains tense features.

Finally, I have suggested that the analysis of Instrumental PP can be extended to other PP that have traditionally been considered adjuncts or obliques.

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