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THE 'INSTRUMENTAL PHRASE':
IS IT AN ADJUNCT, AN ARGUMENT OR A PREDICATE?

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Als meus pares, que sempre m'han fet
costat en tot i per tot.

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CONTENTS

ABBREVIATIONS

ABL	Ablative Case
ACC	Accusative Case
ADV	Adverb
ADVP	Adverbial Phrase
AFF	In Jackendoff's Conceptual Structures, it means AFFECT.
AGRP	Agreement Phrase
AGR$_O$P	Object Agreement Phrase
AGR$_S$P	Subject Agreement Phrase
AP	Adjective Phrase
C	Complementizer
C$_{HL}$	Computational System
CP	Complementizer Phrase
CS	In Jackendoff's conceptual structures, it means CAUSE.
DAT	Dative Case
DP	Determiner Phrase
DS	Deep Structure
FEM	Feminine
FUT	Future
GENP	Gender Phrase
GER	Gerundive
I	First Person
II	Second Person
III	Third Person
INSTR	Instrumental Case
IP	Inflection Phrase
LCS	Lexical Conceptual Structure
LRS	Lexical Relational Structure
MASC	Masculine
NOM	Nominative Case
NUMP	Number Phrase

O	Direct Object
OP	Operator
P	Point of time
PREP	Preposition
PAS	Predicate-Argument Structure
PAST-AUX	Past Auxiliary
PL	Plural
PP	Prepositional Phrase
PR	Pronoun
REFL	Reflexive pronoun
REL	Relative sentence
RSS	Relational Semantic Structure
S	Subject
SG	Singular
SUBJ	Subjunctive
v	Light verb
#	Despite being grammatical, the sentence does not have the intended meaning

INTRODUCTION

_____

The aim of this work is to give a syntactic analysis of what I refer to as 'Instrumental Phrase', a PP that designates the tool used to carry out the action expressed by the verb. As can be noted in the title, I use quite a paradoxical label to designate the circumstantial adjunct that is the object of my study. It is *paradoxical* because the label *Instrumental* is semantic, while the label *phrase* is syntactic. I use it following Gruber's (1965) and Ono's (1992) works in order to refer to the PP that designates an Instrument. When I want to differentiate between the PP and the DP subject that designate a physical object used as a tool, I use the expressions *Instrumental PP* and *Instrumental subject* respectively. When referring to both of them, I will use the label *Instrumentals* or *Instruments*. Moreover, as the only difference that exists between Instrumental, Comitative and Means adjuncts is semantic (they all are PPs), I will use a mixed label to refer to each of them ('Instrumental Phrase', 'Comitative Phrase' and 'Means Phrase').

In this work, I am going to present three possible hypotheses about the 'Instrumental Phrase', two of which are syntactic and one conceptual. Since I conceived this work as a research exercise where I had to show that I was able to find a problem in linguistics, to describe its main characteristics, to weigh the previous works that had tackled it and to suggest a possible analysis, I will contrast a first syntactic analysis, which treats the 'Instrumental Phrase' as a PP that adjoins to the DP Agent, with a second syntactic analysis that treats the 'Instrumental Phrase' as the predicate of a small clause that adjoins to the VP. Although the former hypothesis is more attractive and more innovative, I am going to pursue the second one because it gives a more elegant solution to the traditional tests of constituency. Regarding the conceptual analysis, which is based on Jackendoff's (1987), (1990) works, I will deal with it in the Appendix-1 for two main reasons. First, because it is located in a framework that differs substantially from the Chomskyan one. Second, because, although it has an enormous descriptive power, it encounters some problems that cannot be dispensed with easily. It is mainly due to these two facts that I have preferred to pursue a syntactic analysis.

The present work is organised as follows.

In the first chapter, I briefly describe the characteristics that have been assigned to adjuncts. Afterwards, following Matthews's (1981), Speas's (1990) and Rigau's (in press) works, I defend the classification of the verb complements into three groups: arguments, circumstantial adjuncts and sentential adjuncts. After stating that the 'Instrumental Phrase' is a circumstantial adjunct, I describe which prepositions can introduce an 'Instrumental Phrase'. Immediately afterwards, I refer to Marantz's (1984) classification of 'Instrumental Phrases' as *Intermediary Instruments* and *Facilitating Instruments,* and I clarify that I will deal with what Marantz calls Intermediary Instrument.

Chapter Two, which is devoted to presenting a syntactic analysis of 'Instrumental Phrases' and Instrumental subjects in the Minimalist framework, is articulated around four main sections.

In the first one, following several authors (Gruber (1965), Nilsen (1973), Gràcia (1989a), (1989b) and Rigau (in press)), I propose that the verbs that license an Instrumental should be causative verbs. This assumption leads me to review Gràcia's (1989a), (1989b) analysis of 'Instrumental Phrases'. Afterwards, I examine how a causative verb should be analysed in Chomsky's (1995), (1998) Minimalist framework. I conclude by saying that causative verbs are not distinguished from other transitive verbs in syntax because they all share exactly the same syntactic structure.

In the second section, I present two syntactic hypotheses about the 'Instrumental Phrase'. The first one, which I later reject, is inspired in Kayne's (1994). Following his ideas, I suggest that the 'Instrumental Phrase' could be analysed as a PP that adjoined to the DP that appears in the specifier position of the light verb *v.* I argue that the 'Instrumental Phrase' cannot be confused with a nominal modifier because they occupy different syntactic positions. Although this hypothesis is very attractive because it adjoins a PP directly to a verb argument, it encounters some problems that cannot be easily solved. For this reason, I reject this analysis and I opt for a second syntactic analysis. Following Suñer (1988), I state that the 'Instrumental Phrase' is part of a small clause that has an empty category (PRO) as the subject. Since the DP external argument controls this PRO, the 'Instrumental Phrase' is indirectly related to the DP

external argument, which respects Kayne's (1994) analysis in a light way. In contrast with the first hypothesis, in this case, the 'Instrumental Phrase' is adjoined to the VP, which solves all the problems that the first analysis encountered. Finally, I deal with the fact of why the preposition that introduces a 'Comitative Phrase', a 'Means Phrase' and an 'Instrumental Phrase' is *with.*

In the third section of Chapter Two, I defend that Instrumental subjects are not syntactic derived subjects. In fact, they appear in the subject position (specifier of *v*P) of a transitive verb. If Instrumental subjects are to be related to 'Instrumental Phrases', it is in Conceptual Structure, not in syntax.

Finally, in the last section of this chapter, I extend the analysis I propose for the 'Instrumental Phrase' to the 'Comitative Phrase' and the 'Means Phrase'. Moreover, I suggest that 'Comitative Phrases', 'Means Phrases', 'Instrumental Phrases' and secondary predicates orientated to the subject occupy the same syntactic position, which accounts for some appearance restrictions.

Apart from these two chapters, there are two appendixes. As I pointed out above, the first one is devoted to examining the third hypothesis about Instrumentals, which is basically conceptual. Therefore, I describe Jackendoff's (1987), (1990) model of grammar and conceptual analysis of 'Instrumental Phrases'. Once I have sketched out the main problems of Jackendoff's analysis, I examine what consequences to propose another conceptual analysis has. Following Ono (1992), I suggest that, when there is an Instrumental, there must always be an Agent that transmits his force to the Instrumental. What differentiates the conceptual representation of an 'Instrumental Phrase' from the conceptual representation of an Instrumental subject is basically a different set of correspondence rules. However, since this new analysis does not deal with all Jackendoff's problems and still contains some irreducible problems (for example, neither the analysis I suggest nor Jackendoff's one pay attention to the preposition *with*), I do not present a definitive conceptual analysis for Instrumentals and I leave this question for further research.

In the second Appendix, I describe other uses that the preposition *with / amb* (Catalan) / *con* (Spanish) can have and that are not the subject matter of this work.

Once described the general schema of the present work, I must clarify the languages that I am going to refer to. Basically, I will use Catalan, Spanish and English examples. However, I will not hesitate to make reference to data of any other language as long as they illustrate my explanation. Moreover, I would like to suggest that the syntactic explanation that I am going to propose for the 'Instrumental Phrase' of those languages should be extensible to the languages that follow *The Lakoff-Johnson Universal* (see (1)).

(1)   THE LAKOFF-JOHNSON UNIVERSAL
        '(...) The word or grammatical device that indicates
        ACCOMPANIMENT also indicates INSTRUMENTALITY'
                                        (Taken from Stolz (1996:114)).

Lakoff & Johnson (1980) maintained that this universal hold for all languages in the world. However, as largely shown in Stolz's (1996) work, not all languages use a syncretic mechanism to refer to Accompaniment (what I will call '*Comitative Phrase*') and 'Instrumental Phrases'. Keeping this fact in mind, I will suggest that the 'Comitative Phrase' is licensed in the same way as the 'Instrumental Phrase' and that my analysis could be extended to all those languages that use the same word or affix to introduce these two types of phrases.

CHAPTER 1

CHARACTERISTICS OF THE 'INSTRUMENTAL PHRASE'

In this chapter, I briefly discuss the traditional classification of the verb complements in two groups: *arguments* vs. *circumstantial complements*. After showing that this division is not sharply neat, I make reference to the tripartite division of verb complements that some authors defend (Matthews (1981), Speas (1990) and Rigau (in press)). This tripartite classification allows me to locate the 'Instrumental Phrase', the aim of my study, in a group of complements that behave half-way like an argument and half-way like a predicate adjunct. Afterwards, I proceed to examine what prepositions can head an 'Instrumental Phrase' and how many types of 'Instrumental Phrases' there are. Basing on Marantz (1984), I assume that there are two kinds of 'Instrumental Phrases' (*Intermediary* and *Facilitating Instrumentals*), one of which is the subject matter of the present work.

1. THE CIRCUMSTANTIAL PHRASES

In this section, I will illustrate that the 'Instrumental Phrase' has traditionally been classified as a *circumstantial complement* in Romance grammars and as an *oblique* or *adverbial one* in Germanic grammars. These labels, however, contain very heterogeneous complements.

Most grammars establish that there is a group of complements called *adjuncts* or *circumstantial complements* whose presence is 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 (2).

(2) a. En Vicenç va   boicotejar la representació *amb els*
         art Vicenç   Past-aux boycott   the play   with the-masc-pl

         *seus crits*INSTRUMENTAL   (Catalan)
         his   screams
         'Vicenç boycotted the play with his screams'

     a'. En Vicenç va boicotejar la representació

     b.   En   Lluís va   arribar a Barcelona *a les*

the-masc-sg Lluís Past-aux-III-sg arrive   at Barcelona at the-fem-pl

*tres*TEMPORAL

three

'Luís arrived at Barcelona at three o'clock'   (Catalan)

b'.   En Lluís va arribar a Barcelona

These circumstantial phrases have traditionally been defined as complements that express the manner, the place, the time, the cause, the means, the instrument, the accompaniment, the destination, etc. of the action expressed by the verb (see, for example, Fabra (1956:73-74), Lyons (1968:357), Lyons (1977:497), Porto Dapena (1993:11) and RAE (1991:371)).

However, some objections can already be put forward. First, not all complements that designate a place are adjuncts. For example, in (2b) there is an argument that designates a place (Goal). Hernanz & Brucart (1987:271) call *pseudo-circumstantials* those arguments that syntactically behave as a verbal argument and, semantically, look like a circumstantial phrase. Moreover, as noted by Rigau (in press: §14.1.), in (2b) the argument *a Barcelona* can be omitted if the Goal is used anaphorically to designate the place where the speaker and / or the listener are. Otherwise, there must be a clitic (*hi*), a PP or an AdvP that indicates place. Therefore, we cannot rely either on the semantic content or on the optional character of a complement to determine if this complement is an argument or an adjunct (see in the same line Greenbaum & Quirk (1997:21), Hernanz & Brucart (1987:271-272) and Pérez Saldanya (1998:18; 70)).

Second, circumstantial complements are not as free as they have been said to be. Bosque (1989:136) captures this idea in the following passage: '...*puede recordarse que los llamados 'circunstanciales' no se añaden libremente a cualquier predicado, porque es evidente que no todos designan acciones o procesos que se efectúen en un tiempo y que se lleven a cabo de una determinada manera, con un cierto propósito y en un determinado lugar. Si la oración* Juan se compró un yate *admite complementos circunstanciales de manera, mientras que* Juan tiene un yate *los rechaza, es porque no es tan libre como a veces se piensa el admitir complementos circunstanciales. Puede*

suponerse que en alguna parte de la estructura argumental radica la capacidad de admitir complementos de diversos tipos' [1].

The ungrammatical sentences of (3) illustrate Bosque's words:

(3)   a.   *John and Mary will get married *yesterday*TEMPORAL

      b.   *Paul loves music *with his glasses*INSTRUMENTAL[2]

Moreover, circumstantial complements form a heterogeneous class. Semantically speaking, they include complements of very different sorts as I have sketched out above. Regarding their syntactic status, some of them can be realized as an Adverbial Phrase (AdvP), as a PP, as a DP or as a Sentence (CP) (for instance, the temporal ones), while others can only be realized as a PP (the Comitative or the Instrumental, for example) (Hernanz & Brucart (1987:267) notes it too).

In addition, there is no clear consensus on how many circumstantial complements there are or how they must be classified. For instance, in the Romance tradition, Porto Dapena (1993:20) says that, apart from the typical Temporal, Locative, Modal, Causal, Instrumental and Comitative circumstantial complements, one can defend the existence of the circumstantial complement of quantity, of theme or material, substitution or suppression. In contrast, the Germanic tradition differentiates between adjuncts, subjuncts, disjuncts and connectors (see, for instance, Quirk et al. (1988) and Greenbaum & Quirk (1997)). The group of adjuncts includes Temporal, Locative, Modal, Causal, Instrumental, Comitative phrases, etc.

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[1] *'... It can be remembered that the so-called 'circumstantials' are not freely added to any predicate, since it is evident that not all predicates designate actions or processes that are carried out at a certain time or in a certain way, with a certain purpose and in a certain place. If the sentence* John bought a yacht *accepts circumstantial complements of manner, whereas the sentence* John has a yacht *rejects them, it is because it is not as free to accept circumstantial complements as it sometimes has been thought. It can be supposed that in some part of the argument structure lays the capacity of accepting complements of different kinds.'* (My own translation.)

[2] This sentence is grammatical if we understand that it means *only when Paul wears glasses, he loves music.* In this case, the PP *with his glasses* is not interpreted as the Instrumental that Paul uses to carry out the action expressed by the verb; it is interpreted as a *free adjunct.* The main characteristics of free adjuncts are described in Appendix-2, section 6.

All these problems have led some authors to postulate a new classification of verb complements.

2. A NEW CLASSIFICATION

In this section, I refer to Matthews's (1981), Speas's (1990) and Rigau's (in press) works, which make evident that the label *circumstantial complement* is not really useful. Following them, I classify the 'Instrumental Phrase' as an optional circumstantial phrase that actively contributes to the predication, when it appears in the sentence. Moreover, I illustrate that not all adjuncts have been adjoined to the same syntactic category. In fact, circumstantial adjuncts have been adjoined to the VP, whereas sentential adjuncts have been adjoined to functional categories.

Matthews (1981)[3] proposes that the complements of a verb should be classified as follows:

(4)
$$
\text{elements} \begin{cases} \text{peripheral} \\ \text{non-peripheral} \begin{cases} \text{non-complements} \\ \text{complements} \end{cases} \end{cases}
$$
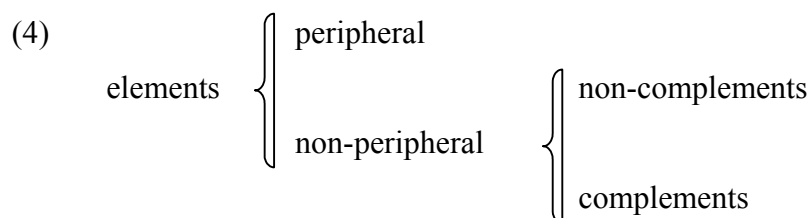
(Schema taken from Hernanz & Brucart (1987:274). The translation is mine).

Bearing in mind Modal complements, Matthews argues that non-peripheral non-complement elements are not really participants in the verbal action, though they are not circumstantials either.

Speas (1990) establishes a similar division:

(5) a. ARGUMENTS
     b. THETA-MARKED ADJUNCTS
     c. ADJUNCTS

---

[3] All the information about Matthews (1981) is taken from Hernanz & Brucart (1987).

She argues that theta-marked adjuncts, which include the Locative, the Benefactive and the Instrumental adjuncts, among others, cannot show anti-reconstruction effects (see (6b)). In Speas's own words, '*although such phrases are not part of a particular verb's theta grid, they behave as though they are governed by the verb and bear a thematic relation to the verb*' (Speas (1990:52)).

In contrast, the members of (5c) (for example, the Temporal and the Rationale phrase) show anti-reconstruction effects, as can be seen in (6a).

(6)   a.   With John's$_i$ novel finished, he$_i$ began to write a book of
               poetry   (Temporal)
        b.   *With John'$_i$ s computer, he$_i$ began to write a book of poetry
               (Instrumental)   (Examples taken from Speas (1990:52)).

In accordance with Speas, the main distribution difference between these two groups of adjuncts is that theta-marked adjuncts appear in DS, whereas external adjuncts do not appear in it.

Rigau (in press) argues for a similar tripartite division. She maintains that it is necessary to distinguish between two types of adjuncts: *circumstantial adjuncts,* also called *circumstantial complements*[4]*,* and *sentential adjuncts*, also known as *free adjuncts*. The former must be licensed by the main predicate, which explains why we cannot have a Locative or an Instrumental adjunct with a stative verb as in (3b) (*Paul loves music with his glasses*) and (7):

(7)   *En   Pere és diabètic *a Tarragona*$_{\text{LOCATIVE}}$ (Catalan)
        the-masc-sg Pere   is diabetic   in Tarragona
        '*Pere is diabetic in Tarragona'
                                      (Example taken from Rigau (in press: §14.1.)).

---

[4] So far, I have used the label *circumstantial complement* to refer to all optional complements (circumstantial adjuncts + sentential adjuncts). From now on, I am going to use it in Rigau's sense.

In Rigau's own terms, circumstantial adjuncts establish a narrow relation with the predicate, while sentential adjuncts do not establish any kind of relation with it. The latter, which are related to the sentential tense, aspect, mood, etc., restrict the setting of the predication. For example, in (8) the PP *a Camprodon* establishes the setting where Pere walks three hours a day.

(8)   A Camprodon, en   Pere camina tres hores diàries
        in Camprodon   the-masc-sg Peter walks   three hours   daily
        'In Camprodon, Peter walks three hours a day'   (Catalan)
                    (Example taken from Rigau (in press: §14.2.2.)).

The PP *a Camprodon* has been called *free adjunct* by different authors, for instance, Hernanz (1993). Actually, (8) can be paraphrased as 'only when Peter is in Camprodon...' (for more information about free adjuncts, see Hernanz (1993) and Appendix-2, section 6).

In fact, it has been largely postulated in Generative Grammar that adjuncts can occupy different positions. For example, some adjuncts are V' or VP adjuncts as seen in (9).

(9)
```
                        S
          ┌─────────────┼─────────────┐
         NP            AUX            VP
          │             │             │╲
          │             │             V'
          │             │             │╲
          │             │             V'      ╲
          │             │           ┌──┴──┐      ╲
          V             │           V     NP  PP   NP
          │             │           │     △   △    △
     Miss Marple       will        read  the  in the  this afternoon
                                         letters garden
```
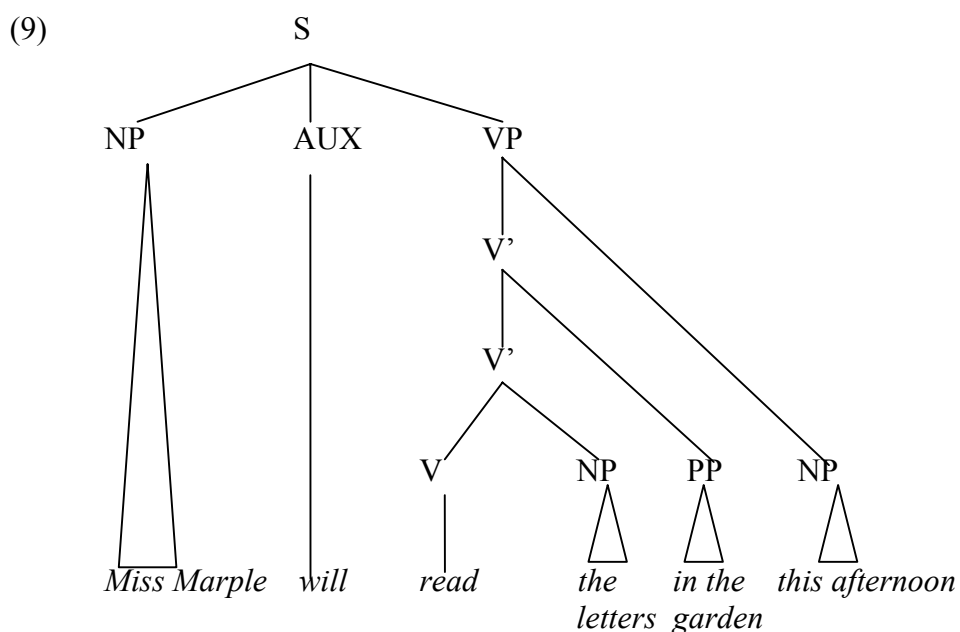
shed
(Example taken from Haegeman (1993:99)).

Other adjuncts adjoin to a functional category. For example, Belletti (1990:41) states that sentential adverbs like *probabilmente* ('probably') are typically adjoined to a position at the beginning of the sentence, since they have scope over the whole sentence. The syntactic representation of (10) illustrates where these kinds of adjuncts are typically located:

(10)

```
                          AGRP
                        /      \
                     Adv         AGRP
                      |         /     \
              ⎧ probabilmente ⎫  NP      AGR'
              ⎨               ⎬        /     \
              ⎩ evidentemente ⎭     AGR       TP
                                           /    \
                                              T'
                                            /    \
                                          T       VP
                                                  .....
```

(Taken from Belletti (1990:41)).
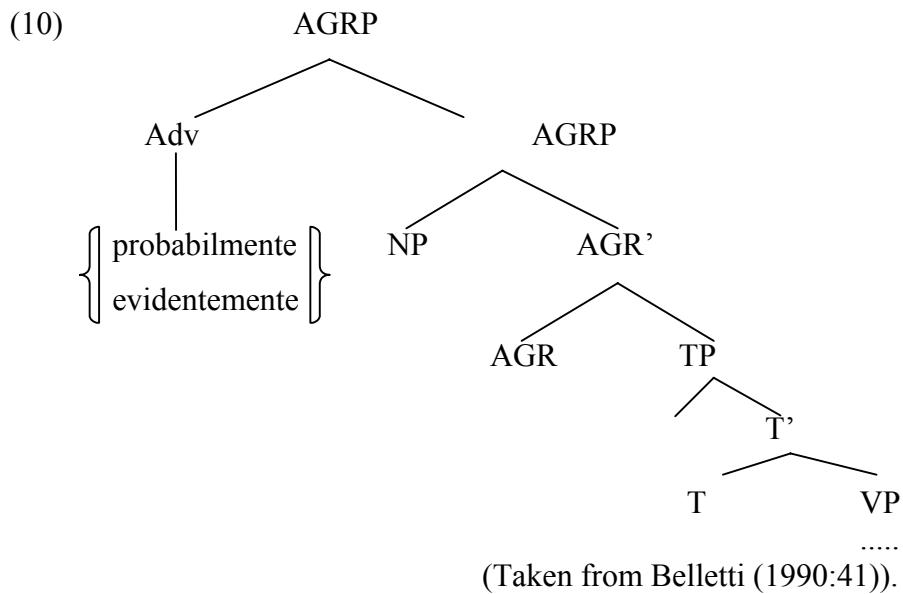
The elements that usually adjoin to V' or VP are Matthews's (1981) non-peripheral non-complement elements, Speas's (1991) Theta-marked adjuncts and Rigau's (in press) circumstantial adjuncts. Baker (1988), for example, argues that, in the languages he studies, only VP adjuncts can be incorporated into the verb.

In contrast, adjunction to functional categories such as IP or CP is reserved to Matthews's (1981) peripheral elements, Speas's (1991) adjuncts and Rigau's (in press) sentential adjuncts, since they modify the whole sentence. For this reason, they are usually separated from the rest of the sentence by an intonational pause (see (11)) and they are not under the scope of negation.

(11)　a.　　Sócrates, *lamentablemente*, bebió la　　　　cicuta

　　　　　　Sócrates   lamentably　　　*drank the-fem-sg hemlock*

　　　　　　'Sócrates, lamentably, drank the hemlock'　(Spanish)

　　　b.　　Sócrates bebió, *lamentablemente*, la cicuta

　　　c.　　Sócrates bebió la cicuta, *lamentablemente*

　　　　　　(Examples taken from Hernanz & Brucart (1987:269)).

Cinque (1997:40) suggests that circumstantial adverbials such as manner, means, company, etc. do not occupy the specifier position of a functional projection above a VP as adverbial phrases such as *frankly, fortunately, usually* or *again* do. Cinque (1997:178) proposes the following universal hierarchy of clausal functional projections:

(12)　[*frankly* MOOD$_{speech\ act}$ [*fortunately* MOOD$_{evaluative}$ [*allegedly*

　　　　MOOD$_{evidential}$ [*probably* MOD$_{epistemic}$ [*once* T(Past) [*then* T(Future)

　　　　[*perhaps* MOOD$_{irrealis}$ [*necessarily* MOD$_{necessity}$ [*possibly*

　　　　MOD$_{possibility}$　[*willingly* MOD$_{volitional}$ [*inevitably* MOD$_{obligation}$

　　　　[*cleverly* MOD$_{ability/permission}$ [*usually* ASP$_{habitual}$　[*again* Asp$_{repetitive\ (I)}$

　　　　[*often* Asp$_{frequentative(I)}$ [*quickly* Asp$_{celerative(I)}$ [*already* T(Anterior) [*no*

　　　　longer Asp$_{terminative}$ [*still* Asp$_{continuative}$ [*always* Asp$_{perfect\ (?)}$ [*just*

　　　　Asp$_{retrospective}$ [*soon* Asp$_{proximative}$ [*briefly* Asp$_{durative}$ [*characteristically*

　　　　(?) Asp$_{generic/progressive}$ [*almost* Asp$_{prospective}$ [*completely* Asp$_{SgCompletive(I)}$

　　　　[*tutto* Asp$_{PlCompletive}$ [*well* Voice [*fast/early* Asp$_{celerative(II)}$ [*completely*

　　　　Asp$_{SgCompletive(II)}$ [*again* Asp$_{repetitive(II)}$ [*often* Asp$_{frequentative(II)}$ ..

　　　　　　　　　　　　　　　　　　(Taken from Cinque (1997:178)).

From now on, I am going to focus on VP or V' adjuncts because the 'Instrumental Phrase' belongs to this group of adjuncts.

In short, it is tenable to maintain a tripartite division of the verb complements, since circumstantial adjuncts (for example, Benefactive, Comitative, Means,

Instrumental, Causal Phrases[5], etc.) are optional complements that are narrowly related to the verb because they take part in the predication. For example, similarly to arguments, an 'Instrumental Phrase' can agree with the verb in some languages (see (13)), it can cliticise like an argument (see (14)), it can be incorporated into the verb (see (15)), etc.

(13) A-zhah'a s-a- la -ye -seyt   (Abjasian)
      the hammer 1sg- 3sg -with -3sghuman-hit
      'I hit him with a hammer'
            (Example taken from Moreno Cabrera (1991:439)).

(14) *Amb aquest   ordinador,* tots *hi* hem   escrit la   tesi
      with this-masc-sg computer   all   pr have-I-pl written the-fem-sg thesis
      'With this computer, all of us have written the thesis'   (Catalan)

(15) a.   Fisi a-na-*dul*-a   chingwe *ndi* mpeni
              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'   (Chichewa, Bantu)
                        (Example taken from Baker (1988:238)).

In contrast, sentential adjuncts (for example, Temporal, Aspectual, Conditional adjuncts, etc.) will never agree with the verb, cliticise, or be incorporated into the verb. For these reasons, they are supposed to adjoin to a functional category and not to the VP.

In the next chapter, I will focus my attention on how the 'Instrumental Phrase' is licensed syntactically and I will extend its analysis to other circumstantial adjuncts, in especial to the Comitative and the Means adjuncts. Before tackling these questions, it is necessary to sketch out the main characteristics that the 'Instrumental Phrase' has.

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[5] I am not going to deal with Causal and Purpose Phrases. However, I remit the interested

3. THE 'INSTRUMENTAL PHRASE'

The basic goals of this section are the following:

(i)   to give a general overview of the prepositions that can introduce an 'Instrumental Phrase'.

(ii)   following Marantz (1984), to draw a division between two classes of Instrumentals: the *Facilitating Instrumental* and the *Intermediary Instrumental*, which is the one I will basically deal with.

3.1. PREPOSITIONS THAT CAN INTRODUCE AN 'INSTRUMENTAL PHRASE'

Nowadays, two prepositions can introduce an 'Instrumental Phrase', one of them with a positive meaning (see (16)), and the other with a negative meaning (see (17)).

(16)   a.   En Pere va trencar el vidre *amb* un martell   (Catalan)
         b.   Pedro rompió el cristal *con* un martillo   (Spanish)
         c.   Peter broke the glass *with* a hammer[6]

(17)   a.   En Carles renta els plats *sense* aquell detergent que li vas recomanar   (Catalan)
         b.   Carlos lava los platos *sin* aquel detergente que le recomendaste   (Spanish)
         c.   Charles washed the dishes *without* that detergent that you recommended him

However, according to Par (1923:271), in the XIVth century Catalan, there were other prepositions that could introduce this complement:

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reader to Viana (1987).
[6] (16a), (16b), (17a) and (17b) are the Catalan and the Spanish versions of the English sentences (16c) and (17c), respectively.

(18) a.   Han   sabut *per* revelacio divinal e *per* relacio de molts

have-III-pl known by   revelation divine   and by   relation of a lot of

ressucitats

resuscitated

'They have known by divine revelation and by relation of a
lot of resuscitated...'

b.   copiar *a* mà

copy   in hand

'to copy by hand'

c.   cobrar *en* bitllets   / *en* espècies

cash   in bank-notes / in species

'to cash bank-notes / to cash in kind'

Some current grammars would consider the circumstantial adjuncts of (18b) and
(18c) Manner adjuncts rather than Instrumental adjuncts. Par (1923: §756) explains this
change of meaning as follows. When the 'Instrumental Phrase' happens to designate
the object which is used by default to carry out an action, it ends up losing the
Instrumental meaning and it acquires a Manner meaning, a modal meaning in Par's
words (various authors have pointed out that it might be difficult to distinguish between
Instrumental and Manner adjuncts. See, for example, Ludo (1983:57-60), Mariotti
(1981:254), Nilsen (1973:59), Quirk et al. (1988:483) and Serianni (1991:346)). In fact,
the complements of (18) are not true Instrumentals because they can coappear in a
sentence with an 'Instrumental Phrase', like those in (16), without being co-ordinated,
as can be seen in (19).

(19)   Fra Frederic copiava el   Nou   Testament a màMANNER

friar Frederic   copied   the-masc-sg New-masc-sg Testament   in hand

amb una   plomaINSTRUMENTAL   (Catalan)

with a-fem-sg   feather

'Friar Frederic copied the New Testament by hand with a feather'

On the other hand, the 'Instrumental Phrases' of (16) cannot coappear in a sentence with another 'Instrumental Phrase' of the same sort without being co-ordinated, as can be seen in (20). Authors like Fillmore (1968:24), Lakoff (1968:7-8), Blake (1994:72) and Huumo (1998:68) argue that, if two phrases can be co-ordinated, they must be semantic equivalents.

(20)   a.   Peter broke the window with a hammer and (with) a stone

        b.   *Peter broke the window with a hammer (with) a stone[7]

The change of meaning illustrated in (18) is not surprising, since, according to Par (1923:267), the prepositions that could introduce an 'Instrumental Phrase' in Old Catalan derived from locative prepositions. Therefore, they may have changed their meaning again and we can establish the following semantic evolution:

(21)   Locative > Instrumental > Manner

Porto Dapena (1993:44) for Spanish and Fillmore (1968:32), Lyons (1968:311), Nilsen (1973:108) and Ono (1992:219) for English maintain that the preposition *por* (Spanish) / *by* (English) can introduce an 'Instrumental Phrase' in a passive sentence:

(22)   a.   En la   guerra fue herido   *por* una   granada
              in   the-fem-sg war   was wounded by   a-fem-sg grenade
              'In the war, he/she was wounded by a grenade'
              (Spanish)   (Example taken from Porto Dapena (1993)).

        b.   The horse was hit *by* the stick
                        (Example taken from Ono (1992)).

As correctly pointed out by Nilsen (1973:108) and Quirk et al. (1988:701), the Instrumental introduced with *by* is not always a synonym of the Instrumental adjunct introduced by *with*:

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[7] As I illustrate in page 90 and in Appendix-2, section 3, two PPs headed by the same preposition can coappear in the same sentence:

(23)	a.	The rats were killed *by fire*

	b.	The rats were killed *with fire*

(Examples taken from Nilsen (1973:108)).

In (23a), there is no implicit Agent, whereas in (23b), there is obligatorily an implicit Agent[8].

In French, an 'Instrumental Phrase' can be introduced by the preposition *du* ('of'):

(24)	Il l'	a	frappé du coude	(French)
	*he him has hit	of elbow*
	'He has hit him with an elbow'

(Example taken from Ludo (1983:57)).

Other languages mark the 'Instrumental Phrase' with a morphological case[9]. For example, Latin uses the Ablative case to mark separation, location and instruments (see (25)), whereas other languages such as Russian have a morphological Instrumental case (see (26)) which can mark DPs that designate an instrument. In fact, Langacker (1990:252, 257-258) maintains that, although morphological cases are attributed without bearing in mind the semantic content of a DP, the Instrumental case prototypically marks an Intermediary Agent.

(25)	*Cornibus* tauri	se	tutantur	(Latin)
	horns-abl-pl bull-nom-pl refl defend-III-pl

(i)	Bill loaded the truck with hay *with a shovel*	(=(220)).

[8] According to Marantz (1984:129), the possible objects of the preposition *by* can have various semantic roles: agents (*Hortense was pushed by Elmer*), experiencers (*Elmer was seen by everyone who entered*), themes (*The intersection was approached by five cars at once*), recipients or goals (*The porcupine crate was received by Elmer's firm*) and other roles that do not have a specific label (*The house is surrounded by trees*). A full account of the semantic roles that can bear the DP headed by such a preposition is far beyond my current aims.

[9] Here I use *case* to refer to the morphological marks that appear in a word (for example, Nominative, Accusative, Genitive, Ablative, etc.). Therefore, I use the label *case* in a different sense from Fillmore's (1968). He uses it to refer to semantic notions such as Agentive, Instrumental, Dative, Factitive, Locative and Objective. In Generative Grammar, these semantic notions are known as *thematic roles.* However, I will use Fillmore's terminology when talking about his (1968) work. Blake (1994: 67) and Bright (1992:217) also note this terminological confusion.

'Bulls defend themselves with their horns'

(Example taken from Valentí Fiol (1987:49)).

(26) Petr   rezal mjaso   nozom   (Russian)
      Peter-Nom cut   meat-Acc knife-Instr
      'Peter cuts the meat with a knife'

(Example taken from Blake (1994:41)).

However, as noted by Blake (1994:41) and Bright (1992:217), the morphological Instrumental case is a syncretic case in Russian because it also marks the agents in passive sentences (cf. with the use of *by*).

In the present work, I only study the 'Instrumental Phrase' introduced by the preposition *with / amb* (Catalan) / *con* (Spanish). Therefore, I leave aside those cases where the 'Instrumental Phrase' is introduced by *without / sense* (Catalan) / *sin* (Spanish), *du* (French) and *by / per* (Catalan) / *por* (Spanish), and those languages that express the 'Instrumental Phrases' with a morphological case.

3.2. Types of 'Instrumental Phrases'

Taking as a point of departure Marantz's (1984) work, I will assume that not all 'Instrumental Phrases' behave alike: while some can appear as a subject (*Intermediary Instrumental*), others cannot (*Facilitating Instrumental*). This difference will allow me to restrict the aim of my study to *Intermediary Instrumentals*.

When looking at those examples in (27) and (28), one realizes that not all 'Instrumental Phrases' behave alike.

(27) a.   Els   paletes van   aixecar els   maons *amb*
           the-masc-pl bricklayers Past-aux raise   the-masc-pl bricks   with

           la   grua elèctrica   (Catalan)
           the-fem-sg crane electric

'The bricklayers raised the bricks with the electric crane'

b. *La grua elèctrica* va aixecar els maons

  the-fem-sg crane electric Past-aux-III-sg raise the-masc-pl bricks

'The electric crane raised the bricks' (Catalan)

(28) a. En Pere menja la sopa *amb la cullera de*

  the-masc-sg Pere eats the-fem-sg soup with the-fem-sg spoon of

fusta (Catalan)

  wood

'Pere eats the soup with a wooden spoon'

b. *#La cullera de fusta* menja la sopa (Catalan)

  the-fem-sg spoon of wood eats the-fem-sg soup

'#The wooden spoon eats the soup'

In (27a) and (28a), there is an 'Instrumental Phrase' introduced by the same preposition: *with*. In (27b), the Instrumental *la grua elèctrica* ('the electric crane') appears as the subject, whereas in (28b) the Instrumental *la cullera de fusta* ('the wooden spoon') cannot appear as the subject.

Referring to examples similar to those in (27) and (28) and relying on a Carter's suggestion, Marantz (1984:246) states that what is normally referred to as Instrumental lumps together different sorts of complements. In (27), *la grua elèctrica* is an *Intermediary Agent* (also called *Intermediary Instrumental*) in the act of raising the bricks: the bricklayers act on the electric crane and it is the electric crane that raises the bricks. On the other hand, although in (28) *la cullera de fusta* is also an instrument in the act of eating, it is not an Intermediary Agent in the action of eating. Marantz (1984) calls this latter sort of Instrumental *Facilitating Instrumental* [10].

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[10] Demonte (1991:37), (1994:541, fn.12) quotes Marantz's (1984) classification.

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 (27)), while the latter can only appear as a PP, never as a subject (see (28)).

In fact, Fillmore (1968:22) already points out that an NP bearing the Instrumental case can appear as the subject. For instance, for a verb like *to kill*, he states that it can have an animate or an inanimate subject; in other words, it can have an Agentive or an Instrumental subject. For this reason, he proposes the following feature frame for this verb:

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

(29) specifies that there must be either an Instrumental, an Agentive, or both. As Fillmore (1968:33) points out, there is a preferred subject choice:

(30)   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 some verbs accept an NP with an Instrumental case, though it cannot appear as the subject. One of these verbs is *to murder*, whose frame is that of (31).

(31)   + [_____ D (I) A]

(31) differs from (29) in that the Agentive case must obligatorily be present.

Although Fillmore's (1968) work has an enormous descriptive power, it does not explain what verbs license an Instrumental subject and which do not, or what differences exist between *to kill* and *to murder*. Second, (30) does not take into account that there can be an 'Instrumental Phrase' in a passive sentence like that of (32):

(32)   La   porta s' ha obert *amb una clau*   (Catalan)

the-fem-sg door pr has opened with a key

'The door has been opened with a key'

Paradoxically for Fillmore's statement, in (32) there is an Objective DP as a subject and an Instrumental PP complement (Huumo (1998:58) also points out this fact).

Before finishing this section, I will briefly refer again to Par's (1923) grammar. Most grammars usually do not state a clear-cut division between the Instrumental and the Means adjuncts (see, for example, Cuervo (1994:295, vol. II), Pérez Saldanya (1998:182), RAE (1991:375)). Amazingly, Par's (1923: §749) definitions of those complements coincide with the definitions that I have just sketched out for the Intermediary and the Facilitating Instrumentals, basing on Marantz (1984):

(33) ' *'Ab' instrumental, qui es aquella qui denota que'l complement es l'instrument executiu de l'acció; aquesta es executada directament, immediata y fatal per aquell: empenyer ab la ma la nau (...) (es la 'mà' qui empeny la nau etc.)* ' [11]

(34) ' *'Ab' de mitjà, qui es aquella qui denota que'l complement es lo mitjà per ahont trascendeix l'acció; aquesta es, però, absolutament y sola executada per l'agent* ' [12]

Once seen the tight relation between Par's definitions and Marantz's ones, I will adopt a slightly new terminology: I will proceed to call the Intermediary Instrumental *'Instrumental Phrase',* while I will call the Facilitating Instrumental *'Means Phrase'.* These terminological equivalencies are summarised in (35):

(35) Intermediary Instrumental = 'Instrumental Phrase'

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[11] '*The Instrumental 'Ab' <with>, which is the word that denotes its complement is the executive Instrument of the action; the action is directly and immediately executed by it: to push with the hand the ship (...) (it is the 'hand' which pushes the ship etc.).*' (My own translation.) Rigau (in press: §14.3.2.1.) also quotes Par's work to define the Instrumental circumstantial adjunct.

[12] '*The Means 'Ab' <with>, which is the word that denotes its complement is the means through*

Facilitating Instrumental = 'Means Phrase'

From now on, I will be concerned with the 'Instrumental Phrase', though I will not hesitate to indicate how a 'Means Phrase' should be syntactically analized.

To sum up, in this chapter I have shown that optionality is not an exclusive characteristic of adjuncts. Moreover, as seen in (3b) (*Paul loves music with his glasses*), an 'Instrumental Phrase' cannot be freely added to any sentence. These restrictions have led me to assume Matthews's (1981), Speas's (1990) and Rigau's (in press) tripartite division of verb complements: arguments, circumstantial adjuncts and sentential adjuncts. This classification is relevant for my work because I will suggest that certain circumstantial adjuncts introduced by the preposition *amb* (Catalan) / *con* (Spanish) / *with* are licensed through a similar syntactic mechanism. However, they should differ in their conceptual representation.

I have also presented the different prepositions that can head an 'Instrumental Phrase' (basically *with - without*) and, after setting two groups of Instrumental adjuncts (Intermediary Instrumentals and Facilitating Instrumentals), I have restricted the aim of my study to those Instrumentals adjuncts that can appear as a subject (Intermediary Instrumentals).

In addition, I have also posed two questions that have not been answered yet:

1.   What sort of verbs license an Instrumental subject? Alternatively, what characteristics do they have that differentiate them from those verbs that license an Instrumental PP but not an Instrumental subject?

2.   How can we account for a passive sentence like that in (32) (*La porta s'ha obert amb una clau* 'The door has opened with a key'), where there is no Agent and there is an 'Instrumental Phrase'?

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which the action goes on; but, the action is only executed by the agent.' (My own translation.)

Obviously, the question that appears in the title of this work has not been answered yet: Is the 'Instrumental Phrase' an adjunct, an argument or a predicate? At this moment, I can already state that it is not a sentential adjunct because it does not set the framework of the predication: it is one of those complements that, when appearing, are closely related to the verb. I can also state that it is not an argument because if it were, a sentence like (2a') (*En Vicenç va boicotejar la representació* 'Vicenç boycotted the play') should be ungrammatical. I will give a definitive answer to the question of the title in Chapter Two.

Before finishing this introductory chapter, I would like to allude to the following examples, which are not part of the objectives of this work:

(36) a.   Jane uses *my computer* to write some poems

      b.   Mark pushes *the lawn mower* along the street

      c.   *El   aspirador*   no funciona   (Spanish)
            the-masc-sg vacuum cleaner not works
            'The vacuum cleaner is out of order'

      d.   Faran   una revisió *microscòpica*   (Catalan)
            make-fut-III-pl a-fem revision microscopic-fem
            'They will make a microscopic revision'

      e.   My boyfriend hates *shovelling* the snow every winter

      f.   She examined the specimen *microscopically*
            (Example taken from Greenbaum & Quirk (1997:234)).

      g.   *Aquest ganivet* no talla   (Catalan)
            this-fem knife   not cuts
            'This knife does not cut'

In (36a), the verb *use* requires a DP as its direct object. As this DP normally designates a semantic instrument, some authors have called it Instrumental DP or have put it in relation with the 'Instrumental Phrase'. However, this DP is an argument of the verb because, if it does not appear, the resultant sentence is ungrammatical (**Jane uses to write poems*). On the contrary, if an 'Instrumental Phrase' like that in (16c) (*Peter broke the glass with a hammer)* does not appear, the sentence continues being

grammatical (compare (16c) with *Peter broke the glass*) (Hernanz & Brucart (1987:273) also note it). A large group of authors have studied the similarities and the divergences of (36a) with sentences like (16) (for example, Anderson (1976:171), Lyons (1977:497), apart from all the followers of Generative Semantics like Lakoff (1968)). I will leave aside those cases because they are real arguments of the predicate and I am interested in those 'Instrumentals Phrases' that are not directly selected by a predicate.

Similarly to (36a), in (36b) there is a verb that can select a DP direct object that designates an instrument (see Nilsen (1973:130) and Quirk et al. (1988:752)). The noun *lawn mower* in (36b) and *aspirador* ('vacuum cleaner') in (36c) intrinsically designate an object that is used to carry out an action. It has largely been noted in the literature that the suffix *-er* in English and the suffix *-dor* in Spanish can represent different semantic notions: Agent (for example, *runner / animador*), Instrumental, Place (*diner / comedor*), etc. (see in this sense Bosque (1989:111-112), Ono (1992:205) and Rappaport et al. (1993:43)). It is beyond the scope of this work to study the properties of these suffixes.

(36d) (*Faran una revisió microscòpica* 'They will make a microscopic revision') is ambiguous because of the adjective *microscòpica*: it can mean that they will examine it in detail or that they will examine it with a microscope. I will not attempt to study why certain adjectives incorporate an Instrumental in their meaning[13].

In (36e), there is a verb, *shovelling* ('to move with a shovel'), which has an Instrumental incorporated in its meaning. The list of this kind of verbs is quite extensive:

(37)   a.   English: *to shovel, to freeze*, etc.

        b.   Catalan: *serrar* ('to saw'), *apunyalar* ('to stab'), *cronometrar* ('to time'), *escombrar* ('to sweep'), etc.

        c.   Spanish: *aporrear* ('to beat'), *martillear* ('to hammer'),

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[13] I am indebted to Carme Picallo for having called my attention on these adjectives.

acuchillar ('to knife'), etc.[14]

These cases have been treated in the literature, in especial, in that related to lexical semantics (see, for instance, Nilsen (1973:160-172), Ludo (1983:61), Levin & Rappaport Hovav (1992), Quirk et al. (1988:752), Rappaport et al. (1993:43)). I will not deal with these instances because they are obtained through a different strategy from the one that I refer to here.

In (36f), there is an adverb, *microscopically,* which represents the instrument used to carry out the action expressed by the verb. It would be really interesting to study the connection between this example and (36d), though I will not pursue this issue here because it goes far beyond my aims.

The subject of (36g) (*aquest ganivet* 'this knife') corresponds to an 'Instrumental Phrase'. However, some 'Instrumental Phrases' and some 'Means Phrases' cannot appear in this kind of sentences (see (38a) and (38b), respectively).

(38)   a.   *Aquesta pilota_{INSTRUMENTAL} no trenca   (Catalan)

             this-fem ball   not breaks

             'This ball does not break'

      b.   *Aquesta cullera rovellada_{MEANS} no menja

             this-fem spoon   rusty   not eats

             '*This rusty spoon does not eat'

As Gemma Rigau suggested me, it is not an exclusive property of 'Instrumental Phrases' or 'Means Phrases' to be able to appear in this kind of construction, since there are DPs that do not designate an Instrumental that can also appear in them:

(39)   *Aquesta porta*_{THEME} no tanca bé   (Catalan)

       this-fem door   not close well

       'This door does not close well'

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[14] I am indebted to Anna Bartra for some of these examples.

Although it would be very interesting to give a full explanation of what kind of DPs can appear in this construction, I am not going to deal with it. However, it could be suggested that sentences (38) and (39) resemble middles because they have a transitive verb used intransitively, they do not denote an event, and they accept an adverbial phrase (*prou* 'enough', *bé* 'well', etc.).

Therefore, I am not going to deal with any of the cases of (36) or with any other value that the preposition *with* can have apart from the Instrumental, the Comitative and the Means values. For other uses of *with*, I remit the reader to Appendix-2. Until then, I will concentrate on those 'Instrumental Phrases' that can occupy two distinct syntactic positions and I will refer to 'Comitative Phrases' and 'Means Phrases' when necessary.

CHAPTER 2

_____

THE SYNTACTIC ANALYSIS

This chapter is articulated around four main sections. In the first one, I highlight that those verbs that license an 'Instrumental Phrase' are *causative* verbs. After summarising Gràcia's (1989a), (1989b) analysis of Instrumentals, I examine which syntactic structure causative verbs have in the Minimalist framework and I reach the conclusion that they do not have any especial syntactic structure that distinguishes them from other transitive verbs.

In the second section, which deals with the 'Instrumental Phrase', I contrast two syntactic hypotheses. The first, which is based on Kayne's (1994), relates the 'Instrumental Phrase' to the DP that appears in the specifier position of the *v*P. However, since this analysis cannot deal with the tests that have been proposed to determine the constituents of a sentence, I reject it and, following Suñer (1988), I propose that the 'Instrumental Phrase' should be part of a small clause that adjoins to the VP. Moreover, basing on Hale & Keyser's (1993), (1997) works, I highlight the relevance that the preposition *with* has.

In the third section of this chapter, which is devoted to Instrumental subjects, I maintain that Instrumental subjects are not related to 'Instrumental Phrases' in syntax, since they are merged into different syntactic positions.

Finally, in the last section of this chapter, I extend the syntactic analysis proposed for 'Instrumental Phrases' to 'Comitative Phrases' and 'Means Phrases'.

1. CAUSATIVE VERBS

One of the questions posed in Chapter One and that has not been answered yet is: 'What verbs license an 'Instrumental Phrase' or an Instrumental subject?' In other words, what is the difference between a verb like *trencar* ('to break'), which licenses an Instrumental subject (see (40)), and a verb like *assassinar* ('to murder'), which does not license an Instrumental subject (see (41))?

(40) a. La   Maria va   trencar el   vidre *amb*

      the-fem-sg Maria Past-aux-III-sg break   the-masc-sg glass with

      la pilota   (Catalan)
      the-fem-sg ball
      'Maria broke the glass with the ball'

   b. *La pilota* va trencar el vidre
      'The ball broke the glass'
                           (Examples taken from Gràcia (1989b:152)).

(41) a. Van   assassinar el   presoner *amb un   fusell*
      Past-aux-III-pl murder   the-masc-sg prisoner   with   a-masc-sg rifle
      'They murdered the prisoner with a rifle'

   b. **Un fusell* va assassinar el presoner
      '*A rifle murdered the prisoner'
                           (Examples taken from Gràcia (1989b:153)).

Gruber (1965:281) states that an Instrumental NP can only appear in a subject position if there is an (explicit or implicit) Agent and if it appears in a causative sentence. Nilsen (1973:95) argues that Agent and Instrumental have a common feature, the feature [+ Cause]. In contrast, Generative Semanticists propose that *cause* should not be a feature, but a verb. More recently, Gràcia (1987:92), (1989a:69-71), (1989b:154) proposes that verbs that license an Instrumental PP and an Instrumental subject should contain an abstract predicate *cause* in their *Lexical Conceptual Structure* (*LCS*). Quirk et al. (1988:745) state that causative verbs may have an Agent, an External Causer or an Instrumental as a subject[15]. Rigau (in press: §14.3.2.1.) also claims that the verbs that can license an Instrumental subject or an Instrumental PP must be causative.

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[15] In section 3, I refer to the fact that causative verbs may have an Agent, a Cause or an Instrumental as a subject. The label *External Causer* that Quirk et al. (1988) use is equivalent to Force or Cause (see in this sense Appendix-2, section 1).

From all the authors mentioned, Gràcia is the only one that proposes a different Lexical Conceptual Structure for the verbs in (40) and for the verbs in (41). In the next subsection, I describe her analysis in more detail.

1.1. GRÀCIA'S (1989A), (1989B) ANALYSIS

In this section, I describe Gràcia's (1989a), (1989b) analysis of 'Instrumental Phrases', which poses a different explanation for those verbs that license an 'Instrumental Phrase' and for those that license a 'Means Phrase'.

As can be seen in examples (40) and (41), Gràcia (1989a), (1989b) states that not all Instrumental adjuncts behave alike, since some of them can appear as PPs and as subjects (I call them 'Instrumental Phrases'), and some of them can only be realized as PPs (I call them 'Means Phrases'). Gràcia, who does not use a different label to refer to 'Instrumental Phrases' and 'Means Phrases', calls the verbs that license an Instrumental subject *causative verbs* and the ones that do not license an Instrumental subject *agentive verbs*.

To explain how an 'Instrumental Phrase' and a 'Means Phrase' are licensed, Gràcia (1989a), (1989b) follows Hale & Keyser's (1985) work, which defends the existence of a level called *Lexical Conceptual Structure* (LCS). In this level, one can include arguments that do not appear in the thematic grid of a predicate.

According to Hale & Keyser (1985), causative verbs are transitive verbs that can assign accusative case and that only have an internal Patient argument. For instance, a verb like that in (40), *trencar* ('to break')*,* has the following lexical entry:

(42)   break: [Patient], [+ accusative]   (Taken from Gràcia (1989a:65))[16].

Different operations can be applied to this lexical entry. If we apply an intransitivization rule, the verb will lose its capacity to assign accusative case, which

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[16] Gràcia's lexical entries are in Catalan. The translation is mine.

will make the internal Patient argument move to an empty position. This DP will move to the empty subject position where it will receive nominative case from IP. In this case, we will get the ergative sentence (43):

(43) El   vidre$_i$ s' ha trencat t$_i$ (Catalan)
     the-masc-sg glass   pr has broken
     'The glass has broken'
                              (Example taken from Gràcia (1989b:154)).

The trace indicates the object movement.

If we do not apply any intransitivization rule to (42), the internal Patient argument will receive accusative case. It will not be able to move to the subject position, since then it would receive two cases (nominative and accusative), which would violate the Case Filter[17]. If we do not insert a DP into the empty subject position, the outcoming sentence will be ungrammatical. Hale & Keyser propose to insert an abstract predicate *cause* into the LCS of an ergative verb like (42). This predicate *cause* would have an external Agent argument and an internal argument that would correspond to the predicate of (42). The result of inserting this predicate is (44):

(44) [X *cause* [Y break]]   (Taken from Gràcia (1989a:66)).

The outcoming sentence would be *La Maria va trencar el vidre* ('Mary broke the glass'). In contrast, non-causative transitive verbs like that of (41), *assassinar* ('to murder'), do not have the basic structure of (42): they contain from the beginning a lexical entry with an Agent and a Patient (see (45)).

(45) [X murder Y]   (contrast (45) and (44)).

This different lexical entry explains why, contrary to causative verbs, this sort of verbs does not have an ergative version like (46): we cannot move the internal

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[17] It must be kept in mind that this analysis follows the theory of Principles and Parameters (Chomsky (1981), (1986)). Nowadays, we would account for such a restriction in a different

Patient argument to the subject position, because this latter position is already occupied.

(46) #El   presoner es va   assassinar[18]   (Catalan)
      the-masc-sg prisoner   pr Past-aux-III-sg murder
      '*The prisoner murdered (himself)'

Gràcia (1989a), (1989b) maintains that, apart from the intransitivization and the causativization processes, there is a third way to license a lexical entry like that of (42), which I repeat below.

(42) break: [Patient], [+ accusative]   (Taken from Gràcia (1989a:65)).

Relying on the fact that an ergative sentence cannot license an 'Instrumental Phrase' (see (47)),

(47) #El   vidre s'ha trencat *amb la   pilota*[19]   (Catalan)
      the-masc-sg glass   pr has broken   with the-fem-sg ball
      '*The glass broke with a ball'   (cf. (32), Chapter One).

Gràcia deduces that the 'Instrumental Phrase' is not an argument of the verb but of the abstract predicate *cause.* According to this, when we apply a causativization rule to an ergative verb, the outcoming verb has the following form:

(48) [X *cause* [Y break] with Z]   (Taken from Gràcia (1989a:70)).

A sentence like (40a) (*La Maria va trencar el vidre amb la pilota* 'Maria broke the glass with the ball') is obtained straightforwardly. Moreover, Gràcia postulates the following LCS for agentive verbs like *murder*:

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way (with [-Interpretable] features).

[18] This sentence is grammatical if understood as a pronominal passive (*The prisoner was murdered*) or as a reflexive sentence (*[?]The prisoner murdered himself)*. However, these are not the interpretations that I am looking for.

[19] This sentence is grammatical if interpreted as a pronominal passive (*The glass has been broken with a ball).* However, this is not the intended interpretation.

(49)   [X MURDER Y with Z]

The main difference between (48) and (49) is the place where the PP *with* is originated. In (48), it is an argument of the predicate *cause*, and if there is not this predicate, no 'Instrumental Phrase' can appear, as (47) illustrates. In (49), the Instrumental is an internal argument of the verb *murder*.

Taking as a point of departure such analyses, Gràcia (1989a:71) proposes that a variable corresponding to the external argument of a non-lexical predicate (*cause*) should not necessarily be realized in a thematic role. Therefore, in (48), we can decide not to project the external argument X and project Z in its place. From such a derivation, we obtain a sentence with an Instrumental subject, as seen in (40b) (*La pilota va trencar el vidre* 'The ball broke the glass').

Regarding (49) ([*X MURDER Y with Z*]), we cannot leave the external argument X without projecting, since it is the external argument of a lexical predicate. If a lexical predicate has a thematic role for its external argument, it must obligatorily assign it, which explains why we cannot have a sentence like (41b) (**Un fusell va assassinar el presoner* '*A rifle murdered the prisoner').

This double analysis allows Gràcia to explain the different syntactic behaviour of Instrumental and Means adjuncts taking as a point of departure the different syntactic and semantic properties of verbs, though not the Instrumental ones.

However, Gràcia's proposal contains some problems, in especial if we understand that an LCS contains the arguments of a predicate. To begin with, the reason that she presents to explain why Means DPs cannot appear as subjects is a double-edged weapon. She maintains that in (49) the Means complement cannot occupy the subject position, because it is occupied by an argument of a lexical predicate. Nevertheless, (49) also presents the Means adjunct as an argument of the lexical predicate. If, as Gràcia (1989a:71) says, we cannot eliminate an argument of a

lexical predicate, a Means complement will always be expected. Nevertheless, a sentence like (50) shows that this prediction is false.

(50) Els   soldats van   assassinar el   presoner
the-masc-sg soldiers Past-aux-III-pl murder   the-masc-sg prisoner
'The soldiers murdered the prisoner'   (Catalan)

Moreover, Gràcia (1989a), (1989b) does not answer a crucial question: what differentiates a non-lexical predicate from a lexical one that allows an argument of a non-lexical predicate not to project? I suppose that it is the lack of phonological realization of the abstract predicate.

Second, Gràcia's (1989a:72) analysis treats the Instrumental in the subject position as a derived subject. However, she does not explain how we get rid of the preposition *with,* which is present in the LCS of (48) ([*X cause* [*Y break*] *with Z*]). Even if *with* is not to be understood as a lexical item but as a semantic function, it is not clear how this semantic function is introduced in the LCS of (48). Moreover, although there is no problem in treating the Instrumental subject as a derived subject, I believe it is more economic to consider it as a non-derived subject, as I will propose in section 3.

Third, Gràcia does not bear in mind that there is no syntactic problem with a sentence like (41b) (**Un fusell va assassinar el presoner* '*A rifle murdered the prisoner'). If we cannot have a Means adjunct as a subject, it is not a syntactic restriction, but a conceptual one! (For a possible explanation, see Appendix-1).

Finally, Gràcia (1989a), (1989b) does not mention that there are verbs that license an 'Instrumental Phrase', though they cannot be used in an ergative way (see (51)).

(51) a.   #El   terra es cobrirà   (Catalan)
         the-masc-sg floor pr will-cover-III-sg
         '*The floor will cover itself'
     b.   En   Pere cobrirà   el   terra

the-masc-sg Pere   will-cover-III-sg the-masc-sg floor

'Pere will cover the floor'

c.   En   Pere cobrirà   el   terra *amb una*

the-masc-sg Pere will-cover-III-sg the-masc-sg floor with a-fem-sg

estora persa

carpet Persian

'Pere will cover the floor with a Persian carpet'

(Example taken from Rigau (in press: §14.3.2.)).

d.   *Una   estora persa* cobrirà   el   terra

a-fem-sg carpet Persian will-cover-III-sg the-masc-sg floor

'A Persian carpet will cover the floor'

(Example taken from Rigau (in press: §14.3.2.)).

As can be seen in (51a), the verb *cobrir* ('to cover') cannot be used ergatively. However, as shown in (51c) and (51d), it licenses an Instrumental PP and an Instrumental subject respectively. Therefore, there is no reason to relate causative verbs to the lexical entry of (42) (*break*: [*Patient*], [+ *accusative*]), since it cannot be maintained that *all* causative verbs derive from an ergative verb.

Similarly to Gràcia (1989a), (1989b), Hale & Keyser (1993), (1997) assume that causative verbs have an ergative version and they look at it to determine the lexical argument structure of the verb and the directionality of the derivation. According to Hale & Keyser (1997), when no morphological mark indicates the directionality of the derivation (see (52)), first there is the simplest structure (the ergative) and afterwards, the causative one, which is obtained through a causativisation process.

(52)   a.   The milk boils
       b.   John boils the milk

However, some verbs have morphological marks that indicate the reverse directionality:

(53) a. La   porta s' ha obert   (Catalan)

the-fem-sg door pr   has opened

'The door has opened'

b. La   Gemma ha obert la   porta

the-fem-sg Gemma   has opened the-fem-sg door

'Gemma has opened the door'

According to Baker's Mirror Principle (1988:13), the directionality of (53) is causative *obrir* > ergative *obrir-se*. Finally, Hale & Keyser do not take into account Romance data like (51), where there is a causative verb (*cobrir* 'to cover') that does not have an ergative version (**El terra es cobrirà* 'The floor will cover itself' (=(51a))).

However, I agree with Gràcia in the idea that causative verbs must be differentiated from agentive verbs. In the next section, I will briefly show that causative verbs do not have any especial syntactic structure that differentiates them from other transitive verbs. Therefore, they must be differentiated in some other component of the grammar[20].

1.2. THE SYNTACTIC STRUCTURE OF CAUSATIVE VERBS

In this section, I will highlight that, in Minimalist terms, causative verbs are not differentiated from other transitive verbs in syntax, since they all share the same syntactic structure.

Chomsky (1995), (1998) assumes that all transitive verbs have the following syntactic structure:

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[20] In Appendix-1, section 3.1., I clarify what I understand by causative verbs (verbs that express a change of state or a change of location of the entity that appears realized as a direct object in syntax). I suggest that causative verbs have two *cause* functions in their Conceptual Structure. It can be argued that lexical entries contain a *Lexical Conceptual Structure* in Demonte's (1994), Levin & Rappaport Hovav's (1992) or Gràcia's (1989a), (1989b) sense, where it is specified that a verb is causative. This information will be recovered in Conceptual Structure, which can be located in Chomsky's (1995) conceptual-intentional interface.

(54)

v^{max}

subject v'

v VP

V   object
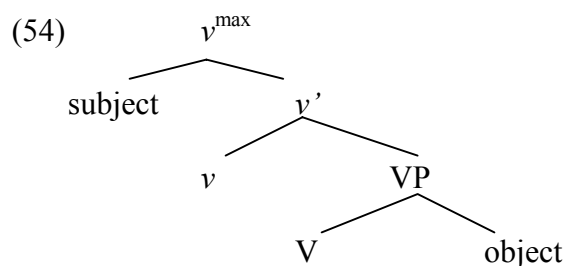
(Taken from Chomsky (1995:352)).

As can be seen in (54), Chomsky (1995) uses a Larsonian shell to analyse transitive verbs. Since he assumes the VP-internal subject hypothesis, the external argument occupies the specifier position of the light verb *v*. Chomsky (1995:315) states that '*the* v-*VP configuration can be taken to express the causative or agentive role of the external argument. **It would be natural to extend the same reasoning to transitive verbs constructions generally**.*' (My own emphasis.) Therefore, all transitive verbs have the syntactic representation of (54) regardless of the fact they are causative, agentive or stative verbs.

According to Chomsky (1998), the derivation of a sentence consists of phases, which are determined by the choice of a functional category, more concretely, by the choice of C or *v* (Chomsky (1998:23)). The phase that is determined by *v* can be called Thematic Phase, whereas the phase that is determined by C can be called Functional Phase. Thus, (54) would correspond to the Thematic Phase and some functional categories (T and C) would have to be added to it before finishing the derivation.

Therefore, in Minimalist terms, (54) is the syntactic structure of a causative verb like *to break* or *to open,* of a transitive stative verb like *to love,* and of an agentive verb like *to watch* or *to eat.* It is evident that verbs that license an 'Instrumental Phrase' are not distinguished from other transitive verbs in syntax. I suggest that they are to be differentiated in Conceptual Structure, since a notion like *causative* is conceptual.

2. THE 'INSTRUMENTAL PHRASE' IN SYNTAX

In this section, I contrast two hypotheses about the 'Instrumental Phrase'. The first one is inspired in Kayne's (1994), who suggests that the 'Instrumental Phrase' may be related to the DP subject. After trying to pursue an analysis that views the 'Instrumental Phrase' as a PP that adjoins to the DP subject, I highlight that it encounters some problems that cannot be easily dealt with. Therefore, I will reject this analysis and, following a syntactic structure proposed by Suñer (1988), I will pursue the second hypothesis (section 2.2). In fact, I will maintain that the 'Instrumental Phrase' is part of a small clause that adjoins to the VP. This solution still has the attractiveness that it relates the 'Instrumental Phrase' with the DP external argument in an indirect way, more specifically, through the empty category PRO.

2.1. HYPOTHESIS A

In this section, I describe Kayne's (1994) analysis of 'Instrumental Phrases', since, following him, it could be proposed that the 'Instrumental Phrase' should adjoin to the DP subject in syntax. Since the 'Instrumental Phrase' would not adjoin to the VP, the traditional tests used to determine the constituents of a sentence should be reinterpreted. As most times we would have to defend an *ad hoc* explanation, I will reject this hypothesis in favour of the second one (section 2.2).

2.1.1. KAYNE'S (1994) ANALYSIS OF 'INSTRUMENTAL PHRASES'

In this section, I briefly refer to Kayne's (1994) work, which states that asymmetric c-command determines the linear order of the elements in a sentence. However, co-ordinated elements like those in (55) apparently constitute a problem to him.

(55) a.   John *and* Bill collided
      b.   John collided *with* Bill

Basing on Lakoff and Peters's (1969) work, Kayne (1994:63) assumes that (55b) contains a co-ordinated subject in some step of the derivation and that (55a) and

(55b) have the same asymmetric underling structure: [*John* [*and Bill*]] and [*John* [*with Bill*]][21].

In a footnote, Kayne (1994:146, fn. 18) states that a sentence like (56) derives from the structure (57):

(56)   The boy broke the window with a hammer

(57)   ... [the boy [with a hammer]]

Two important facts must be put forward from the analysis in (57): 1) Kayne relates 'Instrumental Phrases' with the DP subject, and 2) he proposes that 'Instrumental Phrases', 'Comitative Phrases' and co-ordinated DPs should have the same structure, that of (57). Although structures like (57) and *John with Bill* can be understood as subvarieties of small clauses as Kayne (1994:65) suggests, I reject the idea that (57) is a subvariety of co-ordinated constituents, since, if an 'Instrumental Phrase' were a co-ordination, it could be added to any sentence. However, as exemplified in (3b), which I repeat below, not all verbs accept an 'Instrumental Phrase'.

(3)   b.   *Paul loves music *with his glasses*INSTRUMENTAL

Therefore, the licensing of an 'Instrumental Phrase' is not only a question of syntax but also of Conceptual Structure, since, as I have suggested in section 1.2., the notion *causative* is not syntactic.

Apparently, Kayne's analysis could be followed *stricto sensu.* However, when representing the structure of (57) in a tree diagram, we obtain (58):

(58)   x

<hr />
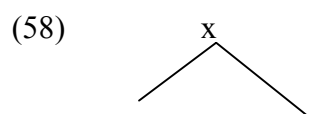
[21] I refer to the 'Comitative Phrase' in section 4, page 79.

```
DP              x'
the boy
            /\
         x      DP
       with    a hammer
```
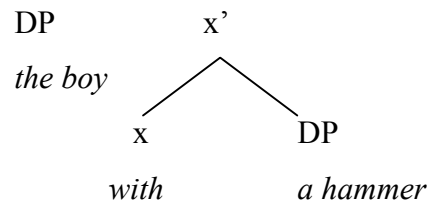
If *x* is identified with the preposition *with,* (58) is a PP. If we had (58) in the subject position of the syntactic structure of a transitive verb, we would get a PP in the subject position. However, it has largely been argued that subjects are never headed by a preposition[22].

It could be argued that *x* is a functional category which has a PP as a complement. In this case, though, we would have to accept that there can be a functional category in the subject position apart from the already proposed DP, NumP or GenP. However, there is no apparent reason to postulate it and another way to implement Kayne's syntactic analysis of 'Instrumental Phrases' can be found (section 2.1.2). Since this implementation encounters so many problems, I will reject it.

2.1.2. EXTENSION OF KAYNE'S (1994) ANALYSIS

In this section, I will examine how Kayne's (1994) analysis of 'Instrumental Phrases' could be applied to and what drawbacks and advantages such an analysis would have. As will be seen, although this analysis is innovative and very attractive, it will have to be rejected because it cannot explain in an elegant way what happens when the 'Instrumental Phrase' is a pronoun, what happens when the VP *do it* entails the 'Instrumental Phrase', and what happens when an 'Instrumental Phrase' appears within a passive sentence.

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[22] However, a PP can be the subject of locative inversion sentences in English, for example (see (i)).

    (i)   Down the street rolled the baby carriage
                    (Example taken from Hoekstra & Mulder (1990:28)).

Bearing in mind that not all sentential adjuncts adjoin to the same functional category (remember Cinque's list of functional categories that I referred to in Chapter One), it could be argued that not all circumstantial adjuncts should adjoin to the vP, but either to the vP or to a category dominated by v. Using Chomsky's (1998) terms, they should adjoin to a category of the Thematic Phase (v). In order to preserve Kayne's analysis, then, it could be stated that the 'Instrumental Phrase' is a PP that adjoins to the DP located in the specifier position of the v. Next, I am going to suggest how this derivation would take place in Minimalist terms, taking as a point of departure sentence (59), which contains a causative verb (*trencar* 'to break').

(59) La   nena va   trencar el   vidre   (Catalan)
     the-fem-sg girl   Past-aux-III-sg break   the-masc-sg glass
     'The girl broke the glass'

According to Chomsky (1995), (1998), when starting a derivation, the computational system (C_{HL}) selects an array of lexical items which form the *numeration.* The numeration consists on pairs (LI, i) where LI is a lexical item and *i* stands for the number of times LI is selected. The numeration of (59) is that in (60):

(60)   N= {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (*v,* 1), (T, 1), (C, 1)}[23]

Once we have the numeration of (60), there are two operations of C_{HL} that are crucial: *Select* and *Merge*. Select takes a lexical item of the numeration and introduces it into the derivation. Merge puts together two lexical items and transforms them into a syntactic object. The derivation will not have finished until the initial numeration is exhausted and we end up having a single syntactic object.

---

[23] As can be seen in (60), I treat *va trencar* 'broke' as one lexical item. However, a more accurate analysis should weigh what analysis the auxiliary verb deserves. Since the analysis of the auxiliary verb is not relevant for the analysis of Instrumentals, I will treat *va trencar* as a single lexical item in order to simplify the derivation.

Taking as a point of departure the numeration of (60), Select will introduce into the derivation the lexical item *vidre* ('glass') and the lexical item *el* ('the'). Afterwards, Merge will combine them into the syntactic object (61):

(61)
```
            el
          /    \
        el      vidre
```
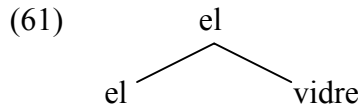
The lexical item *va trencar* ('broke') will be introduced and will merge with (61), as can be seen in (62).

(62)
```
            va trencar (=VP)
          /              \
   va trencar          el  (=DP)
                      /      \
                    el       vidre
```
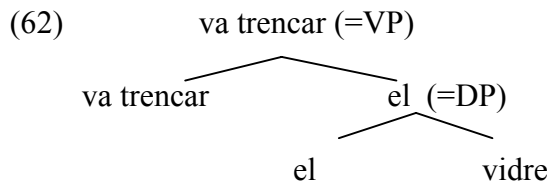
If we assume that a causative verb has the thematic grid {AGENT, Patient}[24], the DP *el vidre* ('the glass') will be interpreted as the Patient of the verb *va trencar* ('broke'). Since this verb is transitive, a light verb v merges with (62):

(63)
```
            v
          /    \
        v       va trencar  (=VP)
              /            \
        va trencar       el (=DP)
                        /      \
                      el       vidre
```
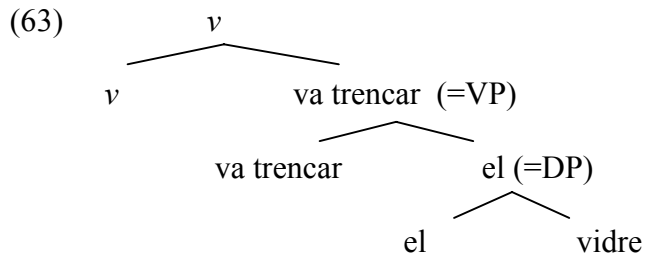
As Chomsky (1995:315) suggests and I have highlighted in section 1.2., the configuration *v*-VP expresses a causative role of the external argument. Therefore, a syntactic object will be selected and will merge into the subject position. Thus, *nena*

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[24] I use thematic grids in a pretheoretical sense, just to designate the number of arguments that a predicate requires and I use thematic roles a mnemonics to refer to categories that occupy a specific position, in the line of Baker (1997), Hale & Keyser (1993), (1997), Mateu (1998), (1999) and Mateu & Rigau (1999). Therefore, when I say DP Agent, I refer to the DP that appears in the specifier position of the light verb *v* in syntax and that is interpreted as an Agent in Conceptual Structure. In contrast, when I say the DP Patient, I refer to the DP that appears in the complement position of the V. In section 3, I suggest that the thematic grid {AGENT, Patient} can be modified in order to avoid confusions.

('girl') and *la* ('the') will be selected and will merge in order to form the syntactic object (64), which will merge into the subject position of (63) (specifier position of the *v*P), as can be seen in (65).

(64)   la (=DP)

               la   nena

(65)   *v*

       la (=DP)   *v*

  la   nena   *v*   va trencar (=VP)

                          va trencar   el (=DP)

                                       el   vidre
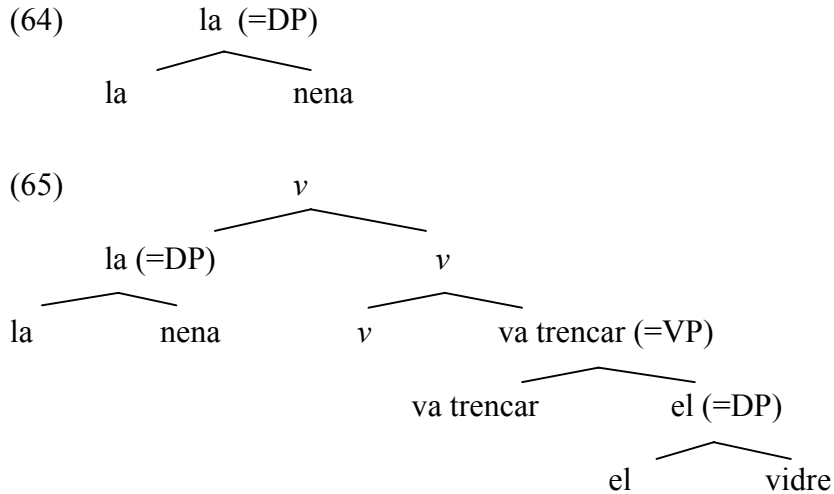
The numeration of (60), which I repeat below,

(60)   N= {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (*v,* 1), (T, 1),

         (C, 1)}

has not been exhausted yet because there are still two functional categories to merge, T and C[25]. Once these categories have merged and all strong and [-Interpretable] features have been checked, the derivation will have finished.

In fact, the sentence of (59) (*La nena va trencar el vidre* 'The girl broke the glass') can appear with an 'Instrumental Phrase', as seen in (66).

(66)   La   nena va   trencar el   vidre *amb una*

        the-fem-sg girl   Past-aux-III-sg break   the-masc-sg glass with   a-fem-sg

        *pedra*INSTRUMENTAL   (Catalan)

        stone

---

[25] I do not represent how these functional categories merge with the syntactic object of (65) because it is not relevant for the analysis of 'Instrumental Phrases'.

'The girl broke the glass with a stone'

(66) would have a different numeration from (59) (*La nena va trencar el vidre* 'The girl broke the glass'), since it contains more lexical items than (59). Therefore, the numeration of (66) would be that in (67):

(67)   N= {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (amb, 1),
                 (una, 1), (pedra, 1), (*v*, 1), (T, 1), (C, 1)}

The *v*P *va trencar el vidre* ('broke the glass') would be formed exactly in the same way as in (59) (*La nena va trencar el vidre* 'The girl broke the glass'). They would basically differ in the syntactic object that merges into the specifier position of the *v*P in (63), which I repeat below:

(63)
```
                 v
           /          \
         v         va trencar  (=VP)
                    /        \
               va trencar    el (=DP)
                              /    \
                            el     vidre
```
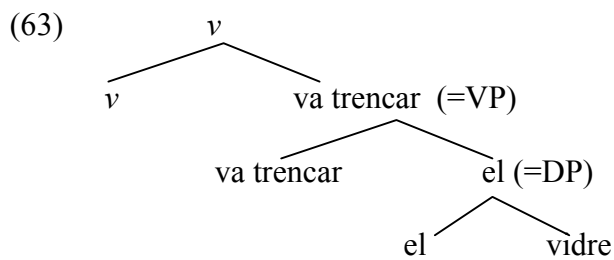
It could be postulated that the lexical items *una* ('a') and *pedra* ('stone') could be introduced into a parallel derivation and could merge, as seen in (68).

(68)
```
            una
          /      \
       una      pedra
```
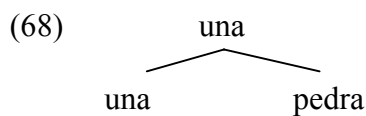
The lexical item *amb* ('with') would be selected, would be introduced into the derivation, and would merge with the syntactic object of (68), as illustrated in (69).

(69)
```
            amb
          /      \
       amb      una (=DP)
                  /     \
               una      pedra
```
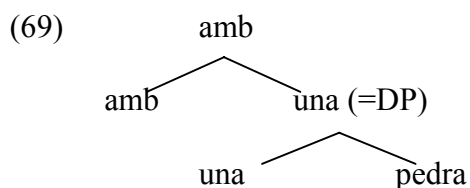
In the same way, the lexical items *la* ('the') and *nena* ('girl') would be introduced into the derivation and would merge to form the syntactic object of (70):

(70)
```
            la
          /    \
        la     nena
```
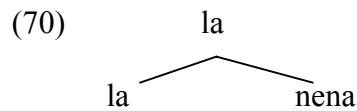
It could be proposed that the syntactic object of (69), which corresponds to an 'Instrumental Phrase', should not adjoin to *v* or VP as has traditionally been said. Inspired in Kayne (1994), it could be argued that the 'Instrumental Phrase' *amb una pedra* ('with a stone') should adjoin to the external argument *la nena* ('the girl'), as seen in (71).

(71)
```
                    la (=DP)
                  /         \
            la (=DP)        amb (=PP)
           /       \        /       \
         la       nena    una      pedra
```
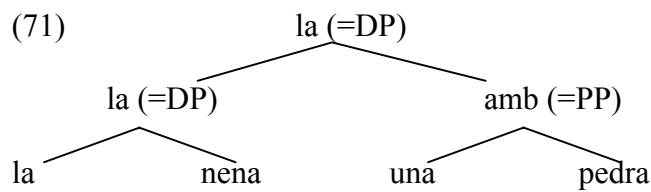
In fact, Gruber (1965:280) also postulates that there is a node that dominates both the Agent and the Instrument.

The syntactic object of (71) should merge into the specifier position of *v* of (63). The outcoming syntactic structure would be that of (72)[26].

(72)
```
                          v
                 /                 \
               DP                   v
            /      \             /     \
          DP       PP           v       VP
         /  \     /   \                /    \
        la nena amb   DP         va trencar  DP
                    /    \                  /   \
                  una   pedra             el   vidre
```

---
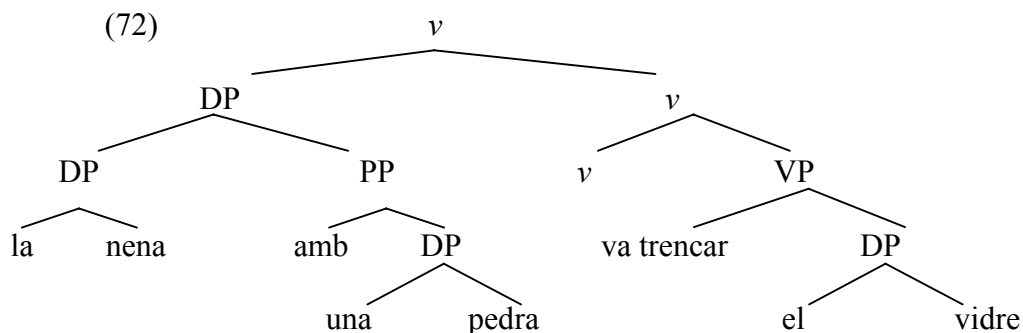
[26] In Kayne's framework, I should have adjoined the PP to the left of the DP. However, this analysis encounters the same problems if the PP adjoins to the left or to the right of the DP.

With such analysis, Kayne's (1994) hypothesis would be preserved, since the syntactic object of (71) and Kayne's analysis would end up having the following configuration:

(73)
```
              DP
            /    \
         DP        PP
       la nena   amb una pedra
```

Up to now, everything has been successful. However, it could be argued that the 'Instrumental Phrase' occupies the complement position of the DP in (72), though it is obvious that an 'Instrumental Phrase' like that in (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a stone') and nominal modifiers as the ones illustrated in (74) do not behave alike [27]:

(74) La   nena {*del   barret / que porta el   barret /*
      the-fem-sg girl   of+the-masc-sg hat   / that wears the-masc-sg hat /

      amb el   barret}_{NOMINAL MODIFIER} va   trencar
      with the-masc-sg hat   *Past-aux-III-sg break*

      el   vidre *amb una   pedra*_{INSTRUMENTAL}
      the-masc-sg glass   with a-fem-sg stone
      'The girl {with the hat / that wears a hat} broke the glass with a stone'

It could be maintained that a nominal modifier can belong to different syntactic categories (PP, AP or CP), whereas an 'Instrumental Phrase' must always correspond to the syntactic category PP.

Second, it could be argued that an elliptic subject *pro / PRO* can license an 'Instrumental Phrase' (see (75a) and (76a)), whereas it cannot license a nominal modifier (see (75b) and (76b)):

---

[27] In Appendix-2, section 4, I refer to Nominal Modifiers.

(75) a.   *pro*_{IIIsg} va   trencar el   vidre *amb una*

he/she   *Past-aux-III-sg break   the-masc-sg glass with   a-fem-sg*

pedra   (Catalan)

stone

'She broke the window with a stone'

b.   **pro*_i va   trencar el   vidre *del*

he/she Past-aux-III-sg break   the-masc-sg glass   of+the-masc-sg

barret _i²⁸   (Catalan)

hat

'She broke the window that wears the hat'

(76) a.   La   nena va   voler [PRO trencar el   vidre

the-fem-sg girl   Past-aux-III-sg want   PRO   break   the-masc-sg glass

amb una   pedra]   (Catalan)

with   a-fem-sg stone

'The girl wanted to break the glass with a stone'

b.   *La   nena_i va   voler [PRO trencar el   vidre

the-fem-sg girl   Past-aux-III-sg want   PRO   break the-masc-sg glass

*que porta el   barret*_i]

that wears the-masc-sg hat

'The girl wanted to break the glass that wears the hat'

Similarly, a dative clitic can license an 'Instrumental Phrase' (see (77)), but not a
nominal modifier.

(77) *Li* fa   obrir la   porta *amb aquesta clau*   (Catalan)

---

²⁸ The subscripts indicate the noun to which the nominal modifier refers.

pr makes open the-fem-sg door   with   this-fem-sg door
'He/she makes him/her open the door with this key'

A third difference between 'Instrumental Phrases' and nominal modifiers is that the former can be extracted out of the DP domain, whereas nominal modifiers cannot (see the contrast between (78a) and (78b)).

(78) a. *Amb què* diu la   ràdio que han   trencat els
          with what says the-fem-sg radio that have-III-pl broken the-masc-pl

          vidres?   (Catalan)
          glasses
          'With what does the radio say they have broken the glasses?'
      b. **D'on* diu la   ràdio que ha descarrilat   el tren?
           of where says the-fem-sg radio that   has gone-off-the rails the train?
          'Of where does the radio say the train has gone off the rails?'
          (# The train of London)[29].

A last difference between nominal modifiers and 'Instrumental Phrases' could be that the former cannot appear separated from the noun they modify (see (79)), whereas the latter can (see (80)).

(79)   *The girl broke the glass *that wears a hat*NOMINAL MODIFIER

(80)   The girl broke the glass *with a hammer*INSTRUMENTAL

Therefore, a sentence like (74) (*La nena* [*del barret / que porta el barret / amb el barret*] *va trencar el vidre amb una pedra* 'The girl with the hat / that wears a hat broke the glass with a stone') would have the syntactic structure of (81).

---

(81)

```
                              v
              ┌───────────────┴───────────────┐
             DP                                v
        ┌─────┴─────┐                    ┌──────┴──────┐
       DP           PP                   v             VP
    ┌───┴───┐    ┌───┴───┐                         ┌────┴────┐
   la       NP  amb      DP              va trencar      el vidre
         ┌───┴───┐    ┌───┴───┐
       nena      α   una     pedra
                 │
            ⎧ del barret        ⎫
            ⎨ que porta el barret ⎬
            ⎩ amb el barret      ⎭
```

(α stands for the syntactic category of each nominal modifier).
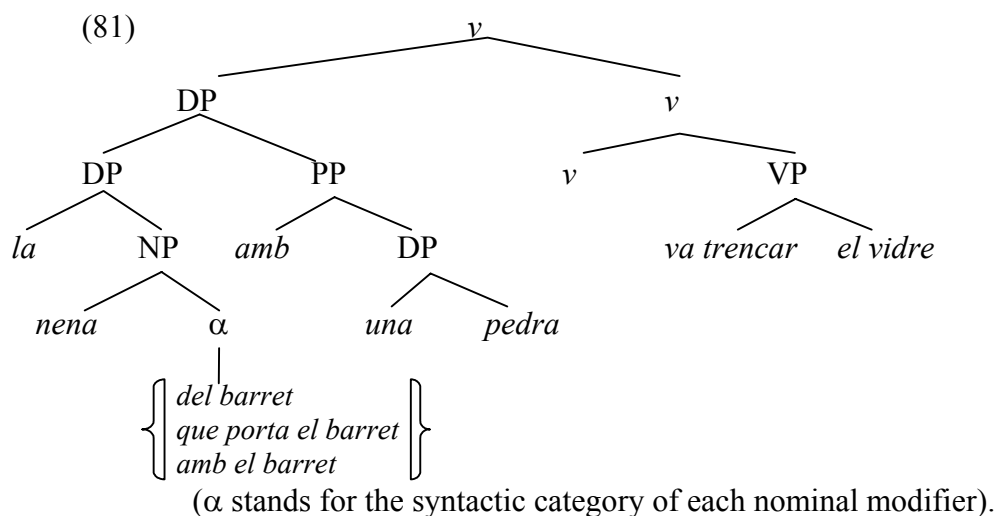
As can be seen in (81), the 'Instrumental Phrase' would occupy a more external position than nominal modifiers. In fact, the 'Instrumental Phrase' would be a predicate that modifies the DP it adjoins to, which would end up being a complex DP. The fact that the 'Instrumental Phrase' were a predicate and not a real complement of the DP would explain why it can be separated of the DP, why it can appear with a *pro / PRO* and, why it can be extracted out of the DP[30]. However, as stated throughout, this hypothesis encounters some problems that will be pointed out immediately.

Regarding the difference between arguments and adjuncts, various authors use the proVP *do it / fer-ho* (Catalan) / *hacerlo* (Spanish) to show the differences between an argument of the verb and an adjunct. As noted by Hernanz & Brucart (1987:241-242), this proVP may refer to the whole VP (see (82a) and (83a)) or to the verb and its internal complements (see (82b) and (83b)).

(82)   a.   La Marta va trencar un vidre *amb un llibre* i en Francesc
            també ho va fer   (Catalan)

       b.   La Marta va trencar un vidre *amb un llibre* i en Francesc ho
            va fer *amb un roc*

---

[30] If we wanted to defend this analysis, a full study of the structure of DPs would be needed. However, since I reject this hypothesis later on, I will not pursue the analysis of the structure of DPs here. I remit the interested reader to Kayne (1994) and Roca (1997), among others.

(83)   a.   Marta broke a glass *with a book* and Francesc did it too[31]

        b.   Marta broke a glass *with a book* and Francesc did it *with a stone*

As can be seen in (82b) and (83b), the proVP may leave outside the 'Instrumental Phrase', though it cannot leave outside the internal argument (see (84)).

(84)   a.   *La Marta va trencar un vidre amb un llibre i en Francesc també ho va fer un mirall   (Catalan)

        b.   *Marta broke the glass with a book and Francesc did it too a mirrow

In fact, the current analysis of the 'Instrumental Phrase' can account for sentences (82b) and (83b) if it is assumed that the proVP *do it / fer-ho* (Catalan) / *hacerlo* (Spanish) represents all the nodes that are under the node VP. Since the 'Instrumental Phrase' would adjoin to the DP that is in the specifier position of the *v*P, it would not be included under *do it / fer-ho* (Catalan) / *hacerlo* (Spanish). However, the analysis of the 'Instrumental Phrase' as a PP adjoined to the DP subject cannot account for sentences like those in (82a) and (83a) where the proVP includes the 'Instrumental Phrase'.

Second, the present analysis would encounter some problems to account for a sentence like (85), where the left dislocated 'Instrumental Phrase' appears represented by the resumptive pronoun *hi*.

(85)   *Amb aquest ordinador*INSTRUMENTAL, els   becaris **hi**
        with this-masc computer   *the-masc-pl scholars pr*

        hem   escrit   la   tesi   (Catalan)
        have-I-pl written   the-fem-sg thesis

---

[31] The examples in (83) are the English version of the Catalan examples in (82).

'With this computer, the scholars have written the thesis'

In fact, the pronoun *hi* would have to adjoin to the DP subject and form a syntactic object like the one represented in (86):

(86)   els (=DP)

           els   α

    els   becaris   hi
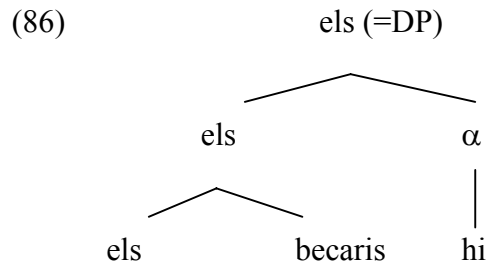
Moreover, it would have to be assumed that *hi* might move to a functional category close to the verb, where all clitic pronouns should have to go.

Third, this hypothetical approach to 'Instrumental Phrases' would have to explain what is going on when there is a passive sentence and an 'Instrumental Phrase' (see (87)).

(87) a. La   senyora Fletcher va   dir que la   porta
        the-fem-sg lady   Fletcher Past-aux-III-sg say that the-fem-sg door

        s' havia   obert *amb una   clau falsa*   (Catalan)
        pr has-III-sg opened with a-fem-sg key false
        'Mrs. Fletcher said that the door had been opened with a false key'

    b. La   caixa de cabdals va   ser tancada   *amb*
        the-fem-sg box   of wealth   Past-aux-III-sg be locked-fem-sg with

        una   clau especial   (Catalan)
        a-fem-sg key   special
        'The safe was locked with a special key'

The licensing of the 'Instrumental Phrase' in sentences (87) is problematic, since there is no DP Agent where the 'Instrumental Phrase' can adjoin to. It could still be argued that in a pronominal passive like (87a), the pronoun *es* occupies the subject position (specifier of the *v*P). Then, the 'Instrumental Phrase' could still adjoin to the *es* pronoun. However, in (87b), there is no pronoun that can appear in the subject position and, henceforth, there is no feasible way to license the 'Instrumental Phrase'.

Moreover, if the 'Instrumental Phrase' adjoined to the DP Agent, it would be very arduous to postulate an explanation of how an Instrumental can be incorporated into a verb as it happens in those languages described by Baker (see, for example, (15b), which I repeat below).

(15)   a.   Fisi a-na-*dul*-a   chingwe *ndi* mpeni
                 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'   (Chichewa, Bantu)
                                 (Example taken from Baker (1988:238)).

Fifth, if the 'Instrumental Phrase' adjoins to the DP Agent, a sentence like (88) would have to be absolutely normal, since the whole DP would have moved.

(88) $^?$Mary *with Mister Proper* cleans the bathroom

However, when saying (88), we would tend to dislocate the 'Instrumental Phrase'.

Moreover, this hypothesis would have some problems to deal with Romance sentences like (89), where the DP Agent follows the 'Instrumental Phrase'.

(89)   Ha trencat el   vidre *amb un*   *roc*$_{INSTRUMENTAL}$ en
              has broken the-masc-sg glass with a-masc-sg stone   *the-masc-sg*

Pere   (Catalan)
Pere

In short, although pursuing this analysis would be an innovative way to account for circumstantial adjuncts, it is untenable to relate the 'Instrumental Phrase' with the DP Agent, since such a proposal cannot account for all the tests that have been proposed to determine the constituents of a sentence. For instance, the syntactic hypothesis I have just sketched out cannot account for a sentence like (82a) or (83a) (*La Marta va trencar un vidre amb un llibre i en Francesc també ho va fer* 'Marta broke a glass with a book and Francesc did it too') or for the licensing of an 'Instrumental Phrase' in a passive sentence. For all these reasons, I reject this hypothesis and I maintain that the syntactic hypothesis defended in the next section deals with the licensing of the 'Instrumental Phrase' in a better way.

2.2. HYPOTHESIS B

In this section, I am going to present a syntactic analysis of the 'Instrumental Phrase' that does not encounter the problems that the analysis sketched out in the previous section had. What I am going to defend is that the 'Instrumental Phrase' is part of a predicative structure, whose predicate is the preposition *with / amb* (Catalan) / *con* (Spanish). Following Suñer (1988), I will maintain that, in the specifier position of this prepositional predicative structure, there is the empty category PRO, which will have to be controlled by the DP Agent. Otherwise, it will be interpreted as an arbitrary PRO. In fact, this syntactic analysis offers an indirect way to relate the 'Instrumental Phrase' to the DP Agent, which means that Kayne's (1994) hypothesis is maintained in a light way.

2.2.1. SUÑER'S (1988) STRUCTURE

In this section, I describe Suñer's (1988) analysis of the construction in (90), which is equivalent to a secondary predicate.

(90) Volvió de la manifestación *con un ojo morado*
came back-III-sg of the-fem-sg demonstration with a-masc-sg eye purple
'He/she came back from the demonstration with a purple eye'
(Spanish) (Example taken from Suñer (1988:81)).

This construction is formed by the preposition *with* followed by a small clause (Hernanz (1993:156-161) mentions it too). As Hernanz (1993:156, fn. 44) comments on, in sentences like (90) the preposition *con* ('with') does not have a Comitative or an Instrumental meaning. In fact, *un ojo morado* ('a purple eye') is not the Instrument that the Agent used to carry out the action expressed by the verb.

Suñer (1988) argues that the adjective of (90) is the predicate of a small clause that, in turn, is the complement of the preposition *with*. If the adjective *morado* ('purple') is left aside, the meaning of the sentence changes crucially: it means that the subject lost an eye! Not only can an adjective work as the predicate of such a small clause, but also PPs with adjectival or locative value, gerundives, adverbs, pseudo-relatives and NPs with predicative value can be the predicate (see (91)).

(91) a. Esta película me dejó [con [los pelos *de punta*]]
this-fem film me leaved-III-sg with the-masc-pl hair of point
'This film made my hair stand on end' (Spanish)

b. Lo pescaron [con [las manos *en la masa*]]
him fished-III-sg with the-fem-sg hands in the-fem-pl mass
'They caught him red-handed'

c. Salimos del cine [con [María *llorando*]]
went out-I-pl of+the-masc-sg cinema with María crying
'We went out of the cinema and María was crying'

d. [Con [Juan *aquí*]], ya no podemos criticar a María
with Juan here already not can-I-pl criticise acc-prep María
'With Juan here, we cannot criticise María any longer'

e. [Con [su marido *que se emborrachaba cada noche*]] la
with her husband that pr got drunk-III-sg every night the-fem-sg

vida de Teresa fue penosísima

life of Teresa was arduous

'With her husband getting drunk every night, Teresa's life

was arduous'

f.   [Con [mi primo Pepe (*como/de*) *diputado*]],   toda

with   mi   cousin Pepe   as   member of Parliament all-fem

la   familia espera recomendaciones

the-fem-sg family   awaits recommendations

'With my cousin Pepe as a member of Parliament, all the

family awaits to be recommended'

(Examples taken from Suñer (1988:84-86)).

Relying on data such as (90) and (91), Suñer (1988:87) proposes that these complements should have one of the structures in (92).

(92)   [con [_α [_{NP}] { a. [_{AP}   ] }]]
         b. [_{PP}   ]
         c. [_{Ger.}]
         d. [_{Adv.}]
         e. [_{Rel.}]
         f. [_{NP}   ]

(Taken from Suñer (1988:87). α stands for small clause).

In contrast, I maintain that an 'Instrumental Phrase' can never be formed by a small clause. Therefore, when there is an adjective in an Instrumental PP, it is a qualifying adjective, which explains why we can leave it out without changing the meaning of the sentence (see (93)).

(93)   Pedro abrió   la   puerta *con la   llave* (*nueva*)
        Pedro opened-III-sg the-fem-sg door   with the-fem-sg key   new-fem
        'Pedro opened the door with the new key'   (Spanish)

Obviously, (93) does not have the surface structure of (92).

As noted by Suñer (1988:87), there cannot be two predicative structures of (92) together without being co-ordinated. In fact, Hernanz (1993:157) states that the PP of (90) (*Volvió de la manifestación con un ojo morado* 'He/she came back from the demonstration with a purple eye') is a secondary predication orientated to the subject. Therefore, it can be co-ordinated with a predicative complement since they are semantically similar (see (94)). However, we can never co-ordinate an Instrumental PP with a predicative complement (see (95)), since they are semantically different:

(94)　Volvió　　　de la　　　manifestación *cansado y con un ojo*
　　　came back-III-sg of the-fem-sg demonstration   tired   and with an eye

　　　morado　　　　　　　　　　　　　　　　　　(Spanish)
　　　purple
　　　'He came back of the demonstration tired and with a black eye'

(95)　a.　　　$^{?/*}$Pedro abrió　　　la　　　puerta *cansado y   con*
　　　　　　　Pedro   opened-III-sg the-fem-pl door   tired   and with

　　　　　　la　　　llave nueva　　　　　　　　　(Spanish)
　　　　　　the-fem-pl key   new
　　　　　　'$^{?/*}$Pedro opened the door tired and with the new key'

　　　b.　　　$^{?/*}$Pedro abrió la puerta *con la llave nueva y cansado*

Finally, Suñer points out that, when the small clause introduced by the preposition *with* is not required by the verb, it can refer to the subject (see (90) (*Volvió de la manifestación con un ojo morado* 'He/she came back of the demonstration with a purple eye') or to the direct object (see (96)) [32].

---

[32] Suñer (1988:97) notes that adjuncts are not the only ones that can contain a small clause because some verbs require an argument formed by a small clause:
　　　(i)　a.　　　En verano　va　*con el*　　　　*pelo suelto* (Spanish)
　　　　　　　　　in   summer goes with the-masc-sg hair   untied
　　　　　　　　　'In summer, she goes without tying her hair'
　　　　　b.　　　*En verano va
　　　　　c.　　　*En verano va *con el pelo*

(96)   Me devolvió   el   paraguas *con una   varilla rota*

me   gave back-III-sg the-masc-sg umbrella   with a-fem-sg rib   broken-fem

'He gave me back the umbrella with a broken rib'

(Example taken from Suñer (1988:98)).

To account for this duality, Suñer adopts Stowell's (1981) hypothesis to analyse such sentences and proposes that there should be a small clause inside another small clause. For instance, (96) has the structure of (97):

(97)   Me devolvió *el paraguas*$_i$ [PRO$_i$ [$_{PP}$ *con una varilla rota*]]

(Taken from Suñer (1988:98)).

In contrast, if the predication *con + DP* refers to the subject, PRO will share the same subscript with the subject. Therefore, (90) will have the structure of (98):

(98)   *pro*$_i$ Volvió de la manifestación [PRO$_i$ [*con un ojo morado*]]

What I am going to suggest in the next section is that the 'Instrumental Phrase' forms part of a predicative structure that has a PRO as a subject.

2.2.2. EXTENSION OF SUÑER'S (1988) STRUCTURE

In this section, I am going to present a syntactic analysis of the 'Instrumental Phrase' based on Suñer's (1988) analysis of sentences like (90) (*Volvió de la manifestación con un ojo morado* 'He/she came back from the demonstration with a purple eye'). The main difference between the structure of the complement introduced by *con* ('with') in (90) and the one that I am going to defend for the 'Instrumental Phrase' is that, in the former, the complement of the preposition *con* ('with') is a small clause, whereas with an 'Instrumental Phrase' it must be a DP. Both in Suñer's (1988)

(ic) would be acceptable if we were talking about a bald person who wears a hat in winter, and a wig in summer, and we referred to the wig with the word *hair.*

analysis and in the analysis I am going to present, the PP is preceded by the empty category PRO.

In order to present this new syntactic analysis, I am going to refer to (66), which I repeat below.

(66) La   nena va   trencar el   vidre *amb una*

      the-fem-sg girl   Past-aux-III-sg break   the-masc-sg glass with   a-fem-sg

      *pedra*INSTRUMENTAL   (Catalan)

      stone

      'The girl broke the glass with a stone'

In contrast with what I suggested in the section devoted to the first syntactic hypothesis, (66) does not have the numeration of (67), which I repeat below, but that of (99).

(67) N= {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (amb, 1),
          (una, 1), (pedra, 1), (*v*, 1), (T, 1), (C, 1)}

(99) N= {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (amb, 1),
   (una, 1), (pedra, 1), (PRO, 1), (*v*, 1), (T, 1), (C, 1)}

Similarly to what happened in the first syntactic hypothesis, Select will introduce the lexical items *el* ('the') and *vidre* ('glass') into the derivation and Merge will combine them into a syntactic object. Afterwards, Select will introduce the verb *va trencar* ('broke') into the derivation and Merge will combine it with the syntactic object [*el vidre*]. The outcoming structure is that of (100).

(100)   va trencar (=VP)

        va trencar   el (=DP)

   el   vidre   (=(62))

Before merging the light verb *v* with the syntactic object of (100), I propose that another syntactic object, the one corresponding to the 'Instrumental Phrase', should merge with (100). Therefore, Select will introduce the lexical items *una* ('a') and *pedra* ('stone') into a parallel derivation and Merge will combine them into the syntactic object of (101).

(101)   una   (=DP)

       una   pedra   (=(68))
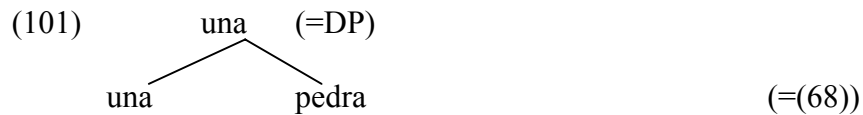
Select will also introduce the preposition *amb* ('with') into the derivation, which will merge with (101), as can be seen in (102).

(102)   amb

    amb   una

          una   pedra   (= (69))
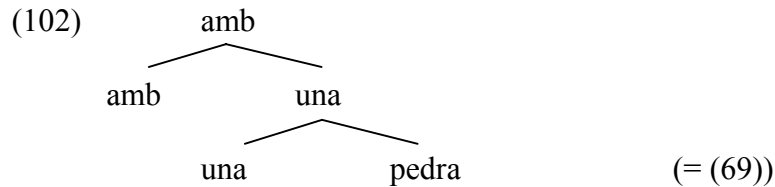
As various authors have proposed (see, for example, Hale & Keyser (1993), (1997)), the preposition *amb* ('with'), like all prepositions, expresses a relation between two entities or, in other words, it is a dyadic predicate. In (102), there is only one entity, one argument: *una pedra* ('a stone'). I propose that Select should introduce into the numeration the lexical item *PRO,* which would merge with the syntactic object of (102) and which would be the second argument required by the preposition. Then, we will get the syntactic object of (103).

(103)   amb (=PP)

    PRO   amb

        amb   una (=DP)
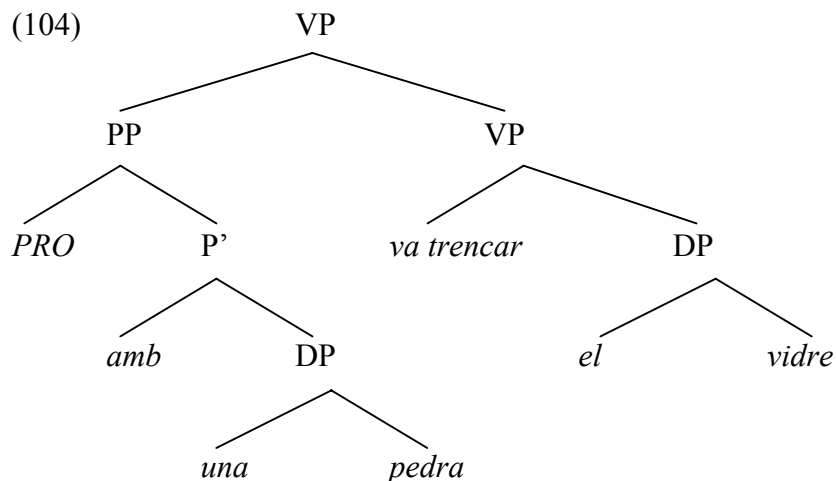
           una   pedra
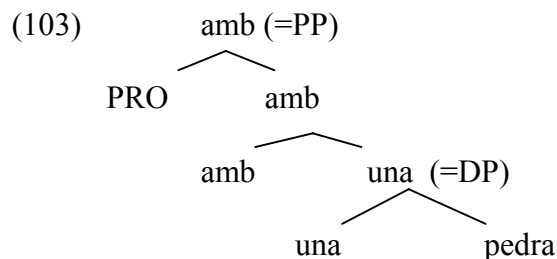
The main function of the preposition is to relate the lower DP with the DP Agent in an indirect way, since this relation takes place through the empty category PRO.

Following Chomsky (1981), (1986), (1995), I assume that PRO enters the numeration with φ features and a null case feature that does not have to be checked. In contrast, the preposition *with / amb* (Catalan) / *con* (Spanish) checks the features of its DP complement.

(103) resembles a small clause because there is a predicate that requires two arguments and there is no temporal category that can license the predication. Therefore, the 'Instrumental Phrase' is a predicate that must adjoin to a verbal syntactic object in order to be licensed.

I propose that the syntactic object of (103) should be selected and should merge with the syntactic object of (100), giving as a result the syntactic structure of (104) [33].

```
(104)                    VP
              ┌──────────┴──────────┐
             PP                     VP
        ┌────┴────┐           ┌─────┴─────┐
      PRO         P'       va trencar     DP
              ┌───┴───┐               ┌───┴───┐
            amb       DP             el      vidre
                  ┌───┴───┐
                una      pedra
```
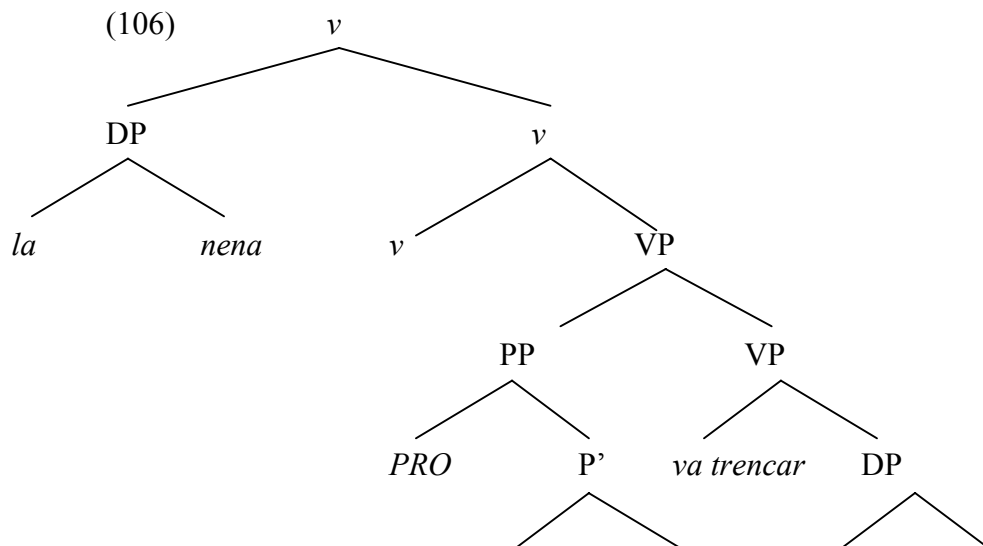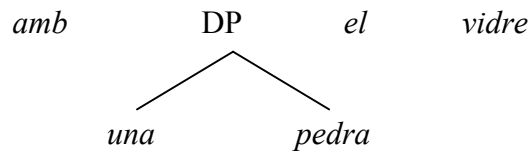
Since the verb *va trencar* ('broke') is a transitive verb, it will have to merge with a light verb *v*. Therefore, Select will introduce the light verb, which will merge with the syntactic object of (104), as seen in (105).

---

[33] The syntactic object (103) can adjoin to the right or to left of the VP. The result will be the same.

(105)

      v

  v   VP

    PP   VP

 PRO   P'   *va trencar*   DP

     amb   DP   *el*   *vidre*

          una   *pedra*
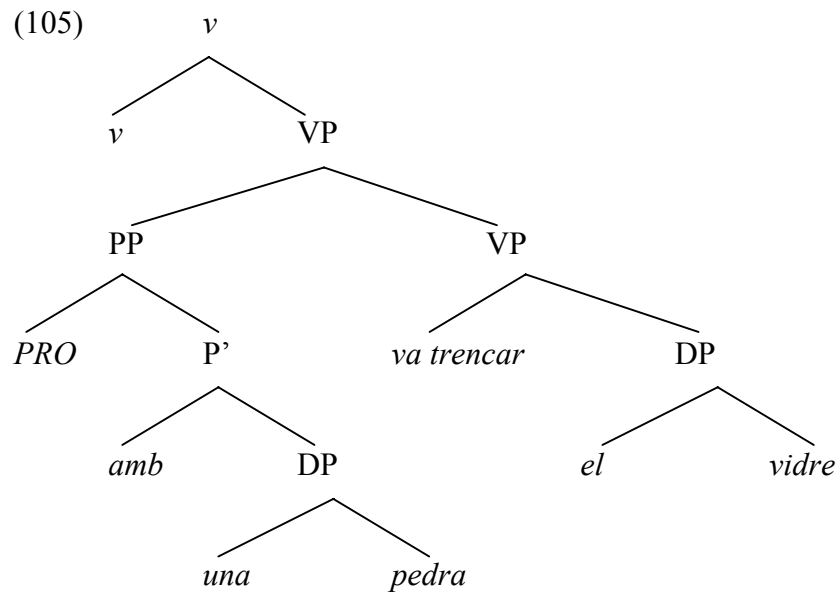
As I highlighted in section 1.2, Chomsky (1995:315) argues that the configuration *v*-VP expresses a causative relation. Therefore, the syntactic object of (105) will have to merge with a DP that can be interpreted as an Agent. The syntactic object that will merge into the specifier position of *v* will be [*la nena*]. Thus, the outcoming syntactic object will be that of (106).

(106)

      v

  DP   *v*

la   *nena*   *v*   VP

            PP   VP

         PRO   P'   *va trencar*   DP

```
          amb        DP         el         vidre
                    /    \
                  una      pedra
```

The DP *la nena* ('the girl') will work as the antecedent of the PRO subject of the Instrumental predication.

In contrast with the analysis sketched out in section 2.1.2, this syntactic analysis has the advantage that it can deal with the tests proposed to determine the constituents of a sentence easily. First, both uses of the proVP *do it / fer-ho* (Catalan) / *hacerlo* (Spanish) can be accounted for straightforwardly. Thus, in (83a), which I repeat below, the VP *do it* includes all the constituents that appear under the upper VP shell of (106). It includes the DP direct object *a glass* and the 'Instrumental Phrase' *with a book.* In fact, the adverbial *too* enforces the inclusion of the 'Instrumental Phrase'.

(83)   a.   Marta broke a glass *with a book* and Francesc did it too

        b.   Marta broke a glass *with a book* and Francesc did it *with a stone*

In contrast, in (83b), the verb *do it* only includes the arguments that are dominated by the lower VP shell of (106), that is, the DP direct object *a glass.*

Regarding the analysis of sentences like that in (85), which I repeat below,

(85)   *Amb aquest ordinador*INSTRUMENTAL, els   becaris **hi**
        with this-masc computer   *the-masc-pl scholars pr*

        hem   escrit la   tesi   (Catalan)
        have-I-pl written the-fem-sg thesis
        'With this computer, the scholars have written the thesis'

I suggest that the resumptive pronoun *hi* appears in a syntactic structure similar to that in (103)[34]. In any case, the advantage of the present analysis is that it locates the pronoun next to the verb, which facilitates the explanation of why *hi* attaches to the verb.

Concerning passive sentences, in the present approach an 'Instrumental Phrase' can merge with the VP regardless of the presence or the absence of a DP Agent. If no DP Agent can control the empty category PRO, it will be interpreted as an arbitrary PRO. Thus, in those sentences of (87), which I repeat below, we understand that the key was used by whoever happened to open the door in (87a) and by whoever happened to close the safe in (87b).
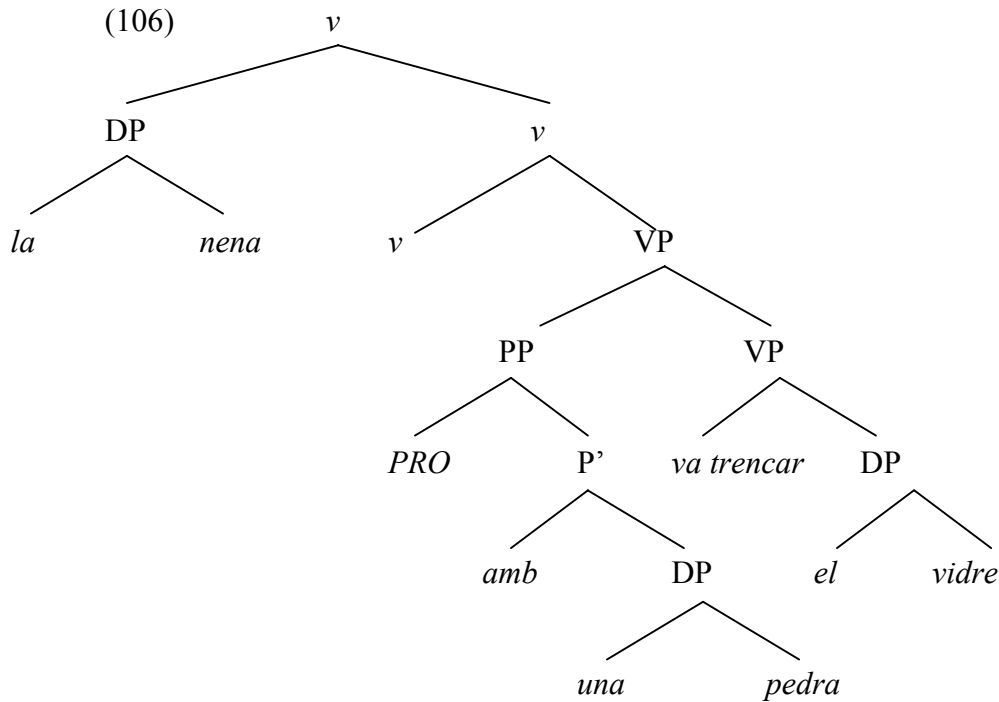
(87) a.   La   senyora Fletcher va   dir que la   porta
              the-fem-sg lady   Fletcher Past-aux-III-sg say that the-fem-sg door

              s' havia   obert *amb una   clau falsa*   (Catalan)
              pr has-III-sg opened with a-fem-sg key   false
              'Mrs. Fletcher said that the door had been opened with a false key'

      b.   La   caixa de cabdals va   ser tancada   *amb*
              the-fem-sg box   of   wealth   Past-aux-III-sg be   locked-fem-sg with

              una   clau especial   (Catalan)
              a-fem-sg key   special
              'The safe was locked with a special key'

Finally, having the 'Instrumental Phrase' next to the verb can facilitate the explanation of how an 'Instrumental Phrase' is incorporated into the verb. I will not pursue this issue here because it goes beyond my current aims.

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[34] I am not going to pursue here if the pronoun *hi* occupies the head position of the small clause of (103) or, in contrast, if it occupies the complement position of an empty preposition.

There remains a point left, though: if we look at the syntactic derivation of (106), which I repeat below, we will realize that the lexical items do not have the linear order of (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a stone').

(106)

```
                        v
           ┌────────────┴────────────┐
          DP                          v
        ┌──┴──┐                  ┌─────┴─────┐
       la     nena               v           VP
                                         ┌────┴────┐
                                        PP          VP
                                     ┌───┴───┐   ┌───┴───┐
                                   PRO       P'  va trencar  DP
                                          ┌──┴──┐         ┌──┴──┐
                                         amb    DP        el   vidre
                                              ┌──┴──┐
                                            una   pedra
```

In fact, when comparing (106) with the numeration in (99) (*N = {(la, 1), (nena, 1), (va trencar, 1), (el, 1), (vidre, 1), (amb, 1), (una, 1), (pedra, 1), (PRO, 1), (v, 1), (T, 1), (C, 1)}*), one realizes that the numeration has not been exhausted yet, which will make the derivation crash. In fact, if we consider (106) equal to Chomsky's (1998) Thematic Phase, (106) will have to proceed to the Functional Phase (the phase determined by the functional category C).

According to Chomsky (1995), (1998), the structure in (106) would first merge with the functional category TP and, later, with the functional category CP. Afterwards, the DP *la nena* ('the girl') would raise to the specifier position of T to check (and delete) the strong feature [D]. At the same time, it would check its [-Interpretable] Case feature. The verb *va trencar* ('broke') would also rise overtly to *v,* since the light verb requires a verbal affix. Immediately afterwards, *v*-VP would rise overtly to T to

check its temporal features. If no other movement took place, we would get the marked order (107), where the DP *el vidre* ('the glass') would be in a position with focus.

(107)   La nena va trencar *amb una pedra* el vidre

If the direct object *el vidre* ('the glass') moved overtly to check the [-Interpretable] Case feature, it would have to occupy one outer specifier position of the VP, since, as Chomsky (1995), (1998) dispenses with the functional categories Agr$_S$P and Agr$_O$P, there can be multiple specifiers. Then, we would get the linear unmarked order of (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a stone' (Catalan)).

In Chomsky's (1998) terms, the external argument (*la nena* 'the girl') must check explicitly the strong feature [D] of Tense (this feature is equivalent to EPP). On the other hand, the internal argument *el vidre* ('the glass') does not have to move to check its Case feature because it is checked through Probe. Thus, to get the linear order of (66), we must assume that the DP *el vidre* ('the glass') moves explicitly to check an optional feature EPP in the outer specifier position of the VP.

However, Chomsky's (1995), (1998) functional categories cannot account either for the fact that the 'Instrumental Phrase' occupies a rhematic position in (66) or for the linear order of (89), which I repeat below.

(89)   Ha trencat el   vidre amb un   roc en   Pere
        has broken the-masc-sg glass with   a-masc-sg stone the-masc-sg Pere
        'Peter has broken the glass with a stone'   (Catalan)

As (89) illustrates, in Romance languages the DP subject *en Pere* ('Peter') can appear in a postverbal position of focus, after the 'Instrumental Phrase'. Since the functional categories CP and TP cannot give account of this Romance linear order, some functional category or some discourse-related feature would have to be assumed to explain why the 'Instrumental Phrase' tends to appear at the end of the sentence (see (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a

stone') and why the subject can appear after the 'Instrumental Phrase' (see (89)). I will not pursue this issue here because it goes far beyond my current purposes. However, I remit the interested reader to Belletti (1999) and Villalba (1998), both of whom propose functional categories related to notions like focus and topic, and to Picallo (1999), who argues that functional categories such as Flex or v can optionally select a feature [F] which forces an argument to be interpreted as Theme or Rheme. If Flex has the feature [F], the DP subject (the DP in the specifier position of the vP) will move to the specifier position of FLEX, it will be understood to codify known information and we will get the order SVO. In contrast, if v has the feature [F], the DP object moves to an outer specifier position of the vP to check it. Afterwards, the verb will move and we will get the linear order VOS. Thus, the subject, which will remain in situ, will be understood as encoding new information.

To sum up, in this section, I have proposed that the 'Instrumental Phrase' should be analysed as the predicate of a small clause that adjoins to the VP. The subject of this small clause is a PRO which will be controlled by the DP Agent. In contrast, if there is no Agent, it will be understood as an arbitrary PRO. Despite appearances, this analysis is not so far away from Kayne's (1994) proposal, since the 'Instrumental Phrase' is related to the external argument through an indirect mechanism (through a PRO). Therefore, although this syntactic analysis is not as innovative as the former, it has the advantage that it offers a more elegant explanation of the tests that have been used to determine the constituents of a sentence and it still allows us to relate the 'Instrumental Phrase' to the DP Agent[35]. The main problem that this analysis may encounter is that it does not respect an economy principle that Chomsky (1995:294) postulates:

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[35] This analysis is different from the one I proposed in Pascual (in press). In that previous work, inspired by Rigau (in press: §14.3.2.1.), I maintained that the Instrumental PP formed a prepositional predicative structure not with the Agent, but with the Patient (direct object in syntax). Now, I clearly reject this analysis because it encounters some problems (see in this sense fn. 37).

Concerning Rigau's descriptive work, Rigau (in press: §14.3.2.1.) states that in a sentence like (i), the preposition *amb* ('with') associates the direct object with the complement of the preposition.

(i) En   Pere tapa   el   forat de la   paret *amb*
    the-masc-sg Pere covers the-masc-sg hole of the-fem-sg wall   with
    una   litografia   (Catalan)
    a-fem-sg lithograph
    'Pere covers the hole of the wall with a lithograph'.

(108) α enters the numeration only if it has an effect on the output

(Taken from Chomsky (1995:294)).

As a matter of fact, although the category PRO has always been problematic, it is still used by many authors because it is not easy to be dispensed with.

Therefore, the 'Instrumental Phrase' is part of a prepositional predicative structure or small clause that must adjoin to the VP in order to be licensed. It would also be interesting to examine why the preposition that introduces an 'Instrumental Phrase', a 'Means Phrase' and a 'Comitative Phrase' is *with / amb* (Catalan) / *con* (Spanish) and not *to*, for example. In fact, as pointed out by Hale & Keyser (1993:98), (1997:15) and Rigau (1997:397, fn. 2), the preposition *with / amb* (Catalan) / *con* (Spanish) is a stative preposition that expresses a relation of central coincidence between two entities. It means that the two entities that the preposition *with*, or its Romance counterparts, relates come to be together temporarily or permanently. In contrast, a preposition like *to* does not denote a stative relation, since it is a terminal preposition that expresses movement.

When *with* introduces an 'Instrumental Phrase', it expresses the coincidence that exists between the Agent and the Instrument, since, as I have proposed, the Agent controls the Instrument in an indirect way (through the PRO). As the relationship between the DP Agent and the 'Instrumental Phrase' is asymmetric, the Agent and the Instrument cannot be co-ordinated, as seen in (109)[36]:

_____

She maintains that *amb* ('with') expresses the particular relation between *el forat de la paret* ('the hole of the wall') and *la litografia* ('the lithograph') as a result of the action *tapar* ('to cover'), which the agent of the verb carries out. Although it is true that there is an endpoint in which the hole and the lithograph end up being in contact, I do not propose that the preposition *amb* ('with') should express this contact, but the relation of its complement with the DP Agent that carries out the action. The analysis that I defend has the advantage that it offers the same analysis for both 'Instrumental Phrases' and 'Means Phrases'. In contrast, Rigau would need another analysis for a sentence like *He walks with a stick*, since there is no direct object that can end up being in contact with the 'Means Phrase' *with a stick*.

In Appendix-1, I suggest that there are conceptual reasons to propose that the 'Instrumental Phrase' should be related to the DP Agent.

[36] As I propose in Appendix-1, the Agent also maintains an asymmetric conceptual relationship

(109) a. *Peter and *the key* opened the door

b. *John and *the car* broke the window

In Chapter One, I quoted Par (1923), who stated that an Instrumental preposition derives from a Locative preposition. In fact, this derivation follows straightforwardly if we assume, following Hale & Keyser (1993:98), (1997:15) and Rigau (1997:397, fn. 2), that *with* is a stative preposition. For this reason, the preposition *with* / *amb* (Catalan) / *con* (Spanish) can introduce a Locative PP (see Appendix-2, section 5) and an Instrumental PP. In fact, in Chapter One, I suggested that *with* has suffered the semantic evolution of (21), which I repeat below:

(21) Locative > Instrumental > Manner

In short, in section 2 of Chapter Two, I have contrasted two possible syntactic analyses, both of which relate the 'Instrumental Phrase' to the DP Agent. However, the first analysis encounters some problems that the second can easily deal with. Therefore, I have clearly opted for the second one. In section 4, I will suggest that the syntactic analysis that I have defended for the 'Instrumental Phrase' can also be applied to 'Comitative Phrases', 'Means Phrases' and secondary predicates orientated to the subject.

3. THE INSTRUMENTAL SUBJECT IN THE MINIMALIST FRAMEWORK

As stressed in 1.1., Gràcia (1989a), (1989b) states that the Instrumental subject is a derived subject because it is born in a postverbal position, as can be seen in (48), which I repeat below.

(48) [X *cause* [Y break] with Z]   (Taken from Gràcia (1989a:70)).

---

with the Instrument, since, if we assume the notion of *action chain* or *causal chain* proposed by Croft (1991) and other authors, it is evident that the Agent transmits his force asymmetrically to the Instrument, which, in turn, transmits it to the Patient.

According to Gràcia, if the external argument X of the non-lexical category *cause* does not project, the Instrumental Z will appear as the subject. In fact, in Pascual (in press), I also maintained that the Instrumental in subject position was a derived subject[37].

In this section, I am going to argue that it is untenable to relate the Instrumental PP with the Instrumental subject in syntax, since the Instrumental subject occupies the specifier position of the *v*P from the very beginning. To argue so, I will take as an example sentence (110), which corresponds to the numeration of (111).
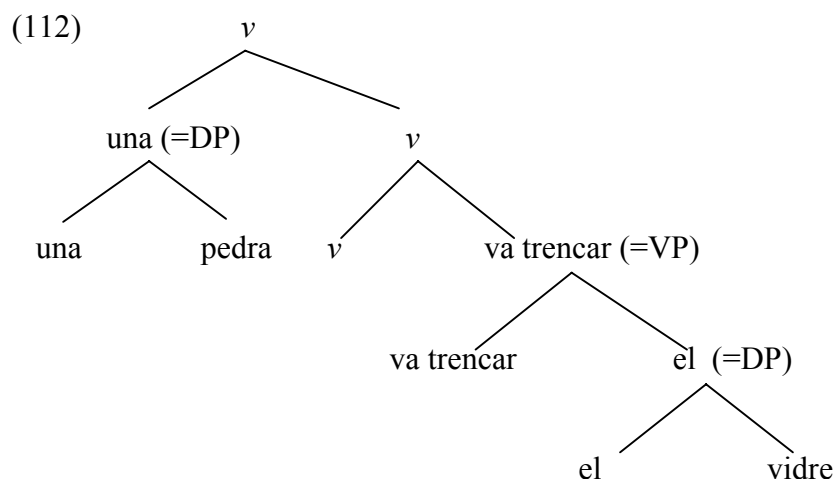
(110)   *Una   pedra*INSTRUMENTAL va   trencar el   vidre

        a-fem-sg stone   *Past-aux-III-sg break   the-masc-sg glass*

        'A stone broke the glass'   (Catalan)

(111)   N= {(una, 1), (pedra, 1), (va trencar, 1), (el, 1), (vidre, 1), (*v*, 1),

          (T, 1), (C, 1)}

Select will introduce these lexical items successively, and they will merge to form the syntactic object of (112).

---

[37] In Pascual (in press), I conceived the Instrumental PP as part of a prepositional predicative structure headed by *with*, which had to merge with a causative predicative structure in order to be licensed. I argued that when the head of the prepositional predicative structure had phonological content, the Instrumental appeared as a PP. In contrast, I stated that when the head of the prepositional predicative structure did not have phonological content, the empty P had to be incorporated into the verb. Once this incorporation had taken place, the Instrumental DP had to move to the subject position to check its nominative case. This analysis, which I clearly reject now, had various problems. First, I related the 'Instrumental Phrase' with the direct object. Second, the empty P that was incorporated into the upper V was in a specifier position, though, as largely argued by Hale & Keyser (1993:61), (1997:16-17), an element that is in such a position cannot be incorporated. Third, the analysis I proposed could not deal with a sentence like *Peter broke the glass with a stone*INSTRUMENTAL *with his brother*COMITATIVE. I deal with it in section 4, pages 89-90.

(112)

```
                              v
                    ┌─────────┴─────────┐
              una (=DP)                  v
              ┌─────┴─────┐        ┌─────┴─────────┐
           una        pedra      v         va trencar (=VP)
                                       ┌──────────┴──────────┐
                                  va trencar              el  (=DP)
                                                    ┌──────────┴──────────┐
                                                   el                  vidre
```

As can be seen in (112), I propose that the Instrumental subject should directly merge into the subject position. There is no reason to analyse it as an adjoined phrase or as the complement of an empty preposition of central coincidence. Moreover, if we compared (112) with a derivation where the Instrumental subject was an adjoined element, the latter would crash because it would be less economic.

Although some phrases that appear in the subject position of (112) are interpreted as Agents, it is true that *una pedra* ('a stone') is not understood as such. To avoid confusions, it can be proposed that causative verbs do not have the thematic grid of (113), but that of (114).

(113)   {AGENT, Patient}

(114)   {ORIGINATOR, Patient}

To suggest (114) has an immediate consequence, since it must be stated that the syntactic configuration *v*-VP does not determine the causative or agentive role of the external argument, but its Originator role[38].

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[38] To propose this thematic grid, I was inspired by Gràcia's (1989b:311) semantic classification of thematic roles. Gràcia groups three different thematic roles under the label *Direct*

As I pointed out in footnote 24, thematic grids are only relevant to indicate the number of arguments that a predicate requires. Therefore, both (113) and (114) indicate that causative verbs require two arguments. In fact, when looking at a causative verb like *open*, one immediately realizes that it may have three different thematic subjects, as illustrated in (115):

(115) a.   *Peter*AGENT opened the door

b.   *That key*INSTRUMENT opened the door

c.   *The wind*CAUSE opened the door

I propose that all subjects of (115) merge exactly in the same position. If they are interpreted differently, it is not because of a syntactic difference, but because of a conceptual one. Therefore, the distinction between Agent, Cause and Instrument is not relevant to syntax, but to Conceptual Structure. In fact, in Appendix-1, I suggest that the thematic roles Agent and Instrument are distinguished in Conceptual Structure because they occupy different positions.

If, as I argue, syntax looks at the thematic grid {ORIGINATOR, Patient} only to determine the number of arguments that a verb has, without taking into account thematic roles, both (116) and (117) must have the same grammatical status. However,

---

Originators: Instrument, Cause and Agent, which share some syntactic and semantic properties. Syntactically speaking, all of them can appear in the subject position (see (115)) and can be syntactically realized as PPs (see (i)).

(i) a.   Peter opened the door *with Mary*COMITATIVE
b.   Peter opened the door *with that key*INSTRUMENTAL
c.   The door opened *with the wind*CAUSE

Semantically speaking, they are Originators of the action expressed by the verb because they take part in its origin. These similarities are the ones that led Gràcia to propose that the thematic roles Cause, Instrument and Agent should be put together under the same label.

Instead of calling the proto-thematic role of (114) ORIGINATOR, I could have called it *proto-Agent* following Baker (1997). Baker (1997:108), who proposes a coarse grained Theta theory, comments on the fact that there is no reason to postulate the thematic roles Instrument and Comitative, since they are not subcategorised elements. Immediately afterwards, he suggests that they can form part of the thematic role proto-Agent (for an application of Baker (1997)'s ideas, see Mateu (1999) and Mateu & Rigau (1999:13)).

Quirk et al. (1988:701) and Demonte (1991:36-37) also use the label *Agent* to refer to Instrumental, Cause and Agent subjects.

(116) is an anomalous sentence, unless we were talking about a fairy tale where keys were animate entities and could act volitionally on inanimate entities.

(116) $^{?/*}$*The key* opened the door *with a screwdriver*

(117) *The car* broke the window *with its fender*

(Example taken from Fillmore (1968:23)).

Despite appearances, (116) is not a counterexample to my hypothesis because, *syntactically* speaking, there is no problem with such a sentence. In fact, the DP *the key* occupies the specifier position of *v* and *with a screwdriver* is part of a small clause that adjoins to the VP. The DP *the key* controls the PRO located in the Instrumental small clause. Therefore, the anomaly of (116) is not related to syntax, but to Conceptual Structure, since (116) has exactly the same syntactic derivation as (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a stone') and (117)^{39}.

4. THE 'COMITATIVE PHRASE' AND THE 'MEANS PHRASE'

In this section, I briefly extend the analysis I have proposed for the 'Instrumental Phrase' to the 'Comitative Phrase' and to the 'Means Phrase'. Afterwards, I suggest that some circumstantial adjuncts must adjoin to the same syntactic category and that there cannot be more than one adjunct to each syntactic category. These two hypotheses offer an explanation to some appearance restrictions (for example, **Peter broke the glass with a stone*INSTRUMENTAL *with his brother*COMITATIVE).

4.1. THE 'COMITATIVE PHRASE'

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[39] I remit the reader to Appendix-1, section 4, where I suggest a conceptual explanation for this fact. Despite the differences between Chomsky's framework and Jackendoff's one, my explanation can be applied to those cases.

From Jespersen (1924) to Rigau (in press: §14.3.1.), going through Fillmore (1968:81), Nilsen (1973:47), Quirk et al. (1988:702), Rigau (1990:364) and Kayne (1994:63), it has been noticed that the *with* introducing a 'Comitative Phrase' is somehow related to the conjunction *and*. Some authors defend that the Comitative *with* derives from this conjunction (for example, Kayne (1994)), while others suggest that neither of them is derived from the other (Rigau's (1990), (1997) works would be more in this line).

As I highlighted above, in section 2.1.1, Kayne (1994), following Lakoff and Peters (1969), states that in (55a) there is a co-ordinated constituent (*John and Bill*), and that in (55b), *John with Bill* is generated as a co-ordinated phrase.

(55) a. John *and* Bill collided
      b. John collided *with* Bill

According to Kayne (1994:64), the main difference between *John and Bill* and *John with Bill* is that the former is licensed as far as the whole phrase receives case. In contrast, the latter is not licensed alike, since *John* must move to a position where case is assigned and the second DP is licensed by the preposition.

However, in my opinion two co-ordinated DPs do not deserve the same analysis as a 'Comitative Phrase'. As Rigau (1990:364-365), (1997: §14.3.1.) maintains, sentences like (118) can be paraphrased into (119):

(118) a. En   Pere ballarà   *amb tu* tota   la   nit
           the-masc-sg Pere will-dance-III-sg with you all-fem the-fem-sg night
           'Pere will dance with you the whole night'   (Catalan)
                                    (Example taken from Rigau (1990:364)).
       b. Paul is coming *with Mary*

(119) a. En   Pere i tu ballareu   tota   la   nit
           the-masc-sg Pere and you will-dance-II-pl all-fem the-fem-sg night
           'Pere and you will dance all the night'   (Catalan)

(Example taken from Rigau (1990:364)).

      b.   Paul and Mary are coming

As perfectly pointed out by Rigau (1990), (1997), the sentences in (119) are not complete synonymous with those in (118). For example, (118a) means that Pere and you will dance together, whereas sentence (119a) is ambiguous. It may mean that Pere and you will dance together or that Pere will dance with one person and you will dance with somebody else. In this last reading, the sentences in (119) are seen as the result of the co-ordination of two different sentences, those in (120).

(120) a.   En   Pere ballarà   tota la   nit i tu
the-masc-sg Pere will-dance-III-sg all-fem the-fem-sg night and you

també ballaràs   tota la   nit   (Catalan)
too   will-dance-II-pl all-fem the-fem-sg night
'Pere will dance all the night through and you will also dance all the night through'
            (Example taken from Rigau (1990:365)).

      b.   Paul is coming and Mary is coming too

In fact, a quantifier like *junts* ('together') can be added to those sentences in (119) to force a group reading (see (121)).

(121) a.   En   Pere i tu ballareu   *junts* tota la
the-masc-sg Pere and you will-dance-II-pl together all-fem the-fem-sg

nit   (Catalan)
night
'Pere and you will dance together all the night trough'

      b.   Paul and Mary are coming together

On the other hand, we can also add quantifiers like *per separat* ('separately'), *cadascú pel seu compte* ('on his own'), etc. to the sentences in (119), which will imply the existence of two different actions:

(122) a.　En　　Pere i　tu ballareu　　tota　la　　　nit
the-masc-sg Pere　and you will-dance-II-pl　all-fem the-fem-sg night

cadascú pel　　　　　seu compte　　　　　　(Catalan)
each one　by+the-masc-sg his　own
'Pere and you will dance all the night through separately'
(Example taken from Rigau (1990:365)).

　　b.　　Paul and Mary are coming separately

Therefore, the phrase introduced by the preposition *with* always has a group reading, whereas the phrase introduced by the conjunction *and* can have a group reading (see (121)) or a distributive reading (see (122)). In fact, Kayne (1994:66) himself states that, when a co-ordinated phrase has a distributive reading, it must be preceded by an abstract distributor (BOTH). He argues that the phrase introduced by *with* cannot have a distributive reading, since the distributor BOTH acts as a barrier (see (123)) and does not allow the first element of the co-ordination to move out:

(123)　John is human beings [BOTH [e]$_i$　with Bill]

(Taken from Kayne (1994:66)).

If the first element of the co-ordination does not move, it will not receive case and the sentence will be ungrammatical.

Jackendoff (1990:97) states that a sentence like (118b) (*Paul is coming with Mary*) entails the sentence *Mary is coming with Paul.* However, (118b) does not entail a sentence like (119b) (*Paul and Mary are coming*), since they could come independently.

Following Lakoff and Peters (1969), Kayne (1994:65) also notes that *with* is limited to phrasal co-ordination, while *and* can co-ordinate phrases and sentences.

Moreover, if *with* headed a co-ordinated phrase, a sentence like (124) would have to be an example of polysyndeton, though it has never been classified as such.

(124)　*En*　　*Ton i　la*　　　*Mariona* canten　cançons d' ABBA
　　　　the-masc-sg Ton and the-fem-sg Mariona　sing-III-pl songs　　of　ABBA

　　　　amb en　　　*Pep de Sant Celoni*　　　　　　　(Catalan)
　　　　with the-masc-sg Pep of　Sant　Celoni
　　　　'Ton and Mariona sing ABBA's songs with Pep of Sant Celoni'

These differences (group reading vs. distributive reading, co-ordinated phrases vs. co-ordinated sentences, absence of polysyndeton) show that the phrases headed by *with* do not constitute a type of co-ordination. However, this statement seems to be in contradiction with the (b) version of the following examples:

(125)　a.　　Pedro *con su hijo* fue　　　a visitarme　(Spanish)
　　　　　　Pedro　with his son　came-III-sg　to visit+me
　　　　　　'Pedro came to visit me with his son'
　　　b.　　Pedro *con su hijo* fueron　　a visitarme
　　　　　　Pedro　with his son　came-III-pl　to visit+me
　　　　　　'Pedro came to visit me with his son'
　　　　　　　　　　　　(Examples taken from RAE (1991:501)).

(126)　a.　　El　　　president *amb els　　dos vocals*
　　　　　　the-masc-sg president　with　the-masc-pl two　members-of-the-council

　　　　　　prepara　　el　　　　report　　　　(Catalan)
　　　　　　prepare-III-sg the-masc-sg report
　　　　　　'The president prepares the report with two members of the
　　　　　　 council'
　　　b.　　El　　　president *amb els　　dos vocals*
　　　　　　the-masc-sg president　with　the-masc-pl two　members-of-the-council

　　　　　　preparen　　el　　　　report

prepare-III-pl the-masc-sg report

'The president prepares the report with two members of the
council'

(Examples taken from Badia i Margarit (1995:219)).

In fact, RAE (1991:501) states that in Classic Latin both sentences in (127)
were possible:

(127) a. Pater   *cum matre*   venit   (Latin)
           Father-nom with   mother-abl came-III-sg
           'The father came with the mother'

       b. Pater   *cum matre*   veniunt
           Father-nom with   mother-abl came-III-pl
           'The father came with the mother'

(Taken from RAE (1991:501)).

According to this Spanish grammar, in the (127a) *cum* acts as a true preposition,
whereas in (127b) it acts as a conjunction. In fact, in (125a) and (126a) *amb* (Catalan) /
con (Spanish) is a true preposition because the subject agrees with the verb in singular
number. However, in (125b) and (126b), *amb* (Catalan) / *con* (Spanish) acts as a co-
ordinating conjunction, since the verb shows plural agreement. Since this co-ordinating
use of the preposition *amb* (Catalan) / *con* (Spanish) is old-fashioned, I will concentrate
on the preposition *with* and I will leave aside the conjunction *and*. However, once I
have presented my analysis for *with*, I will briefly refer to *and* to show that the DPs co-
ordinated by *and* deserve a different analysis.

It is necessary to establish what kind of verbs admit a 'Comitative Phrase', since
not all verbs admit it (see (128)).

(128) a. *En   Pere té molta   febre *amb la   Maria*
           the-masc-sg Pere has a lot of-fem fever   with the-fem-sg Maria
           'Pere has a lot of fever with Maria'   (Catalan)

       b. #En   Pere porta pantalons *amb la   Maria*

the-masc-sg Pere wears trousers with the-fem-sg Maria

'Pere wears trousers with Mary'[40]

(Examples taken from Rigau (in press: §14.3.1.1.)).

As Rigau (1997: §14.3.1.1.) points out, it could be argued that the verbs that license a 'Comitative Phrase' are action verbs. However, there are stative verbs which license a 'Comitative Phrase':

(129) a.   En   Pere està d' acord   *amb la   Maria*

the-masc-sg Pere is   of agreement with the-fem-sg Maria

'Pere agrees with Mary'

(Example taken from Rigau (1997: §14.3.1.1.)).

b.   En   David coincideix a Lleida *amb la   Clara*

the-masc-sg David coincides   in Lleida with the-fem-sg Clara

'David coincides in Lleida with Clara'

Rigau (1990:367), (1997: §14.3.1.1.) claims that only those verbs that predicate of a plurality as a whole can license a 'Comitative Phrase' (see for instance (129)). In contrast, those verbs that predicate distributively of a plural subject can never license a 'Comitative Phrase' (see, for example, (128)). Basing on Higgimbotham (1981), Rigau (1990), (1997) calls the former predicates *holistic predicates,* whereas she calls the latter *atomic predicates*.

Therefore, there are two sorts of predicates that license a 'Comitative Phrase':

1.   verbs that can optionally predicate of a plurality in a holistic way (for example, *to dance, to play, to sleep*, etc.).

2.   verbs that always predicate of a plurality. They may have a morphological prefix indicating that the Latin Comitative preposition was incorporated into the verb (for example, *to coincide < cum + incidere*), or they may be symmetric

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[40] The Catalan verb *portar* has two meanings: one is 'to wear' and the other is 'to carry'. When using *portar* with the former meaning, this verb does not easily license the group reading. However, if it is used with the latter meaning, it easily licenses a 'Comitative Phrase' and a group reading.

verbs that have no Comitative morphological mark (for example, *to agree, to meet, to resemble, ser parents* 'to be relatives' (Catalan), etc.).

The second group of verbs can be further divided, since there are verbs which require a plural subject (for example, *to coedit, to codirect,* etc.) and verbs which require a plural object (for example *to combine, enganxar* 'to glue', *barrejar* 'to mix', *casar* 'to marry', *ajuntar* 'to join' (Catalan), etc.). Basing on this latter fact, I will analyse those verbs that can or must predicate of a plural subject holistically in section 4.1.1, and I will deal with those verbs that must predicate of a plural object holistically in section 4.1.2.

4.1.1. THE 'COMITATIVE PHRASE' OF A SUBJECT

The main difference that exists between a verb like *ballar* ('to dance'), which can optionally predicate of a plurality, and a verb like *coincidir* ('to coincide'), which must predicate of a plurality, is that the latter must have specified in the lexicon that it must predicate of a plurality in a holistic way[41].

A verb like *ballar* ('to dance') asks for two arguments, a subject and an optional direct object, as can be seen in (130).

(130) a.   En Víctor balla (un mambo)   (Catalan)[42]

       b.   Victor dances (a mambo)

This verb can also license a 'Comitative Phrase' (see (131)):

(131) En   Víctor balla un   mambo *amb la   Núria*

---

[41] Rigau (1990) accounts for these cases proposing that the preposition is an operator in LF that transforms the predicate into a holistic verb. In contrast, Nieto (1997/1998) proposes that the Latin prefix *co-* introduces a holistic feature to the verb that must be checked by the 'Instrumental Phrase'. In contrast, if there is a plural subject and no 'Comitative Phrase', the subject will check the holistic feature covertly. I will not examine these two analyses in detail, since it falls far beyond my present aims. However, some mechanism is needed to check if the verb satisfies its lexical requirement of predicating holistically or not.
[42] (130b) is the translation of (130a).

the-masc-sg Víctor dances a-masc-sg mambo   with   the-fem-sg Núria

'Víctor dances a mambo with Núria'   (Catalan)

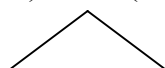To derive a sentence like (131), we will have the numeration of (132):

(132)   N= {(en, 1), (Víctor, 1), (balla, 1), (amb, 1), (la, 1), (Núria, 1),
        (PRO, 1), (*v*, 1), (mambo, 1), (un, 1), (T, 1), (C,1)}

Select will introduce these lexical items into the derivation and they will merge exactly in the same way as they did for a sentence like (66) (*La nena va trencar el vidre amb una pedra* 'The girl broke the glass with a stone'). Therefore, (131) has the syntactic structure (133).
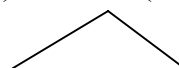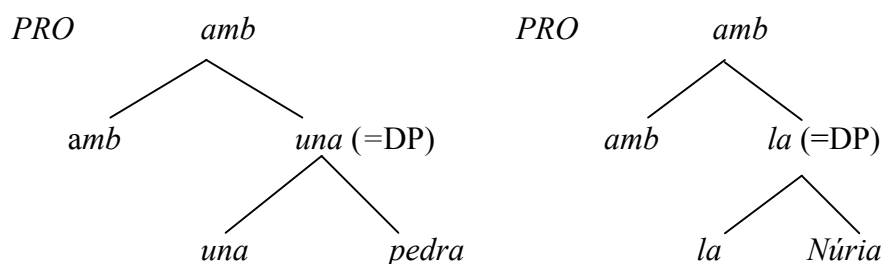
(133)
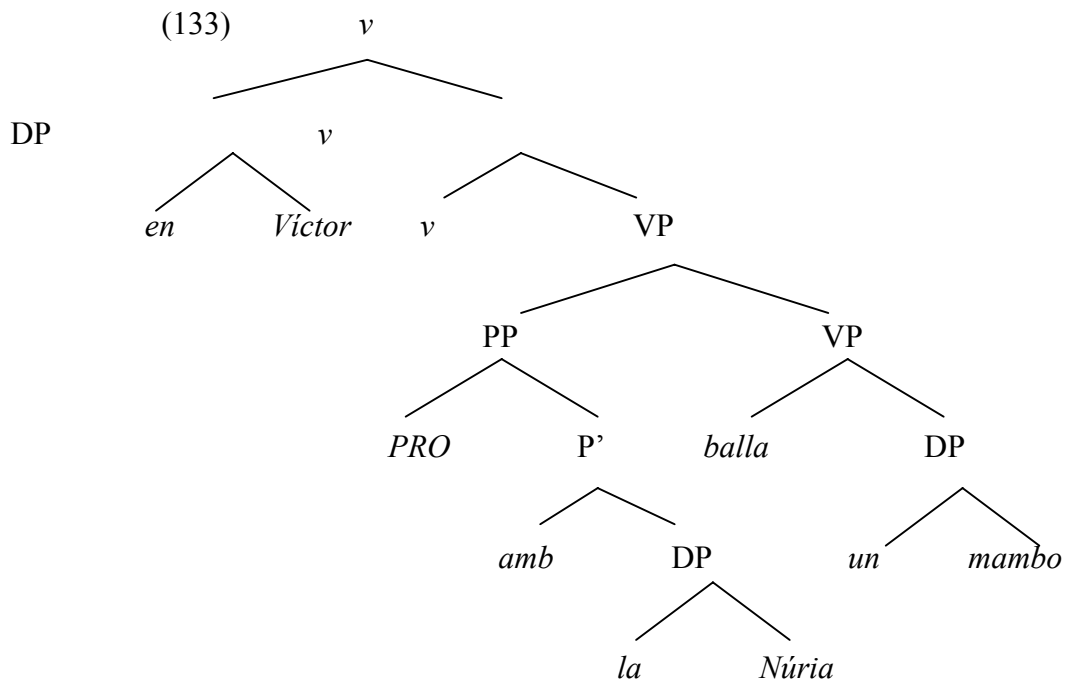
Similarly to what happens with the 'Instrumental Phrase', the DP Agent *en Víctor* ('Víctor') controls the PRO of the 'Comitative Phrase'. In fact, the syntactic object that contains the 'Comitative Phrase' is identical to the syntactic object that contains an 'Instrumental Phrase' (compare (103), which I repeat below, with (134)).

(103)   *amb* (=PP)   (134)   *amb* (=PP)

PRO   *amb*   *PRO*   *amb*

   a*mb*   *una* (=DP)   *amb*   *la* (=DP)

            una   *pedra*   *la*   *Núria*

In both cases, the preposition of central coincidence *amb* ('with') is the head of a small clause that has a PRO in the subject position. In both cases, PRO will be controlled by the DP that occupies the specifier position of the light verb *v*. As I proposed for the 'Instrumental Phrase', the 'Comitative Phrase' is related to the DP Agent of (133) in an indirect way (through the PRO).
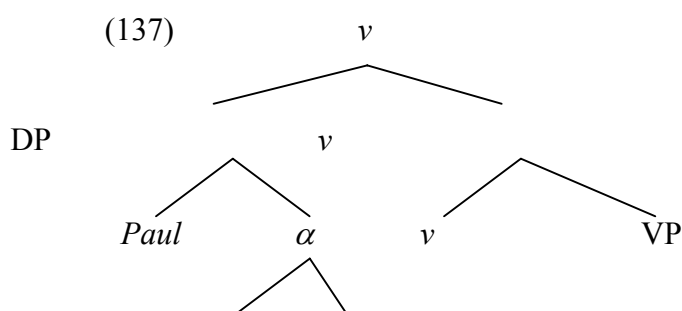
Verbs like *to coedit* or *to cohabit* have lexically specified that they must predicate of a plurality in a holistic way. However, they are derived exactly in the same way as *ballar* ('to dance'). The only difference that exists between them is that *ballar* ('to dance') accepts a singular subject, whereas *to coedit* cannot appear with a singular subject unless there is a 'Comitative Phrase' (see (135)).
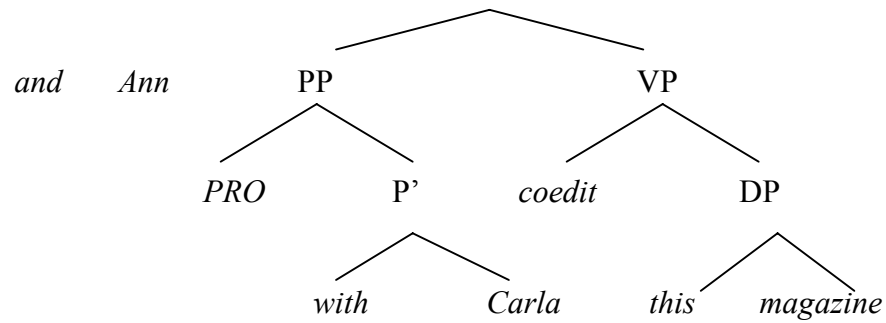
    (135) a.   *Paul coedits this magazine

             b.   Paul coedits this magazine *with Louise*

If a verb like *to coedit* has a plural subject, it can still license a 'Comitative Phrase', as seen in (136):

(136) Paul and Ann coedit this magazine *with Carla*COMITATIVE

A sentence like (136) will have the syntactic structure of (137):

(137)   *v*

DP   *v*

      Paul   α   *v*   VP

```
                                    
        and    Ann      PP                    VP
                      /    \               /      \
                    PRO    P'          coedit      DP
                          /   \                   /    \
                        with  Carla            this   magazine
```

(137) illustrates that a 'Comitative Phrase' is analysed in a different way from two co-ordinated DPs, since the 'Comitative Phrase' is part of a small clause that adjoins to the VP. In contrast, the co-ordinated DPs appear in the specifier position of the vP[43].

Similarly to 'Instrumental Phrases', the expected linear order of (131) (*En Víctor balla un mambo amb la Núria* 'Víctor dances a mambo with Núria') will be obtained if (133) merges with functional categories (C, T and some functional category related to focus).

As can be seen in (133), apart from proposing that the 'Comitative Phrase' should have exactly the same syntactic structure as the 'Instrumental Phrase', I have adjoined it exactly to the same place where I adjoined the 'Instrumental Phrase'. In fact, as I stated in Chapter One, circumstantial adjuncts have been typically adjoined to the VP or the V'. However, this analysis poses some problems, since it seems as if there were no order restrictions between circumstantial adjuncts. However, the examples in (138) show that there must exist some kind of restriction:

(138) a. Juan limpió   el   coche a   fondo *con una*

        Juan cleaned-III-sg the-masc-sg car   prep deep   with a-fem-sg

        gamuza   en el   jardín   (Spanish)

        wash-leather in the-masc-sg garden

---

[43] Probably the syntactic analysis of the co-ordinated DPs could be improved. For example, I have used the label α to refer to the category that dominates the second DP without stating what α stands for, since in (126b) (*El president amb els dos vocals preparen el report* 'The president prepares the report with two members of the council' (Catalan)), *amb* ('with') is the

'Juan cleaned the car thoroughly with a wash-leather in the garden'

b.   Juan limpió *a fondo* el coche con una gamuza en el jardín

c.   *Juan limpió *con una gamuza* el coche a fondo en el jardín

d.   *Juan limpió el coche *con una gamuza* a fondo en el jardín

        (Examples taken from Hernanz & Brucart (1987:278)).

In fact, the 'Manner Phrase' *a fondo* must precede the 'Instrumental Phrase' *con una gamuza*. However, no explanation has been given for this fact. I am not going to deal with this issue here, because it requires a full analysis of all circumstantial adjuncts, which is not the aim of my study. However, I would like to suggest that circumstantial adjuncts can be further divided into at least two groups: those that are related to the DP subject ('Comitative Phrases', 'Instrumental Phrases', 'Means Phrases' and 'Manner Phrases'), and those that are not related to the subject (for example, 'Locative Phrases', 'Purpose Phrases' and 'Benefactive Phrases')[44]. This division resembles Croft's (1991:185) distribution of thematic roles between antecedent and subsequent thematic roles. I refer to it in Appendix-1, section 3.1.

Second, it seems as if we could add as many non-peripheral non-complement elements as we wanted. However, there must be some restrictions because sentences like these in (139) are dubious:

(139) a. $^{?/}$*Peter broke the glass *with a stone*INSTRUMENTAL *with his brother*COMITATIVE

      b. $^{?/}$*En   Jaume va   trencar   el   vidre

          the-masc-sg Jaume Past-aux-III-sg break the-masc-sg glass

          *amb una   pedra*INSTRUMENTAL *amb la   lupa*MEANS

          with a-fem-sg stone   with   the-fem-sg magnifying glass

          'Jaume broke the glass with a stone with the magnifying

          glass'   (Catalan)

---

category dominated by α. I leave this issue open because it falls beyond my current aims.

[44] As Gemma Rigau pointed out to me, circumstantial adjuncts could be further divided yet, since 'Purpose Phrases' share some characteristics with 'Beneficiary Phrases'.

c. $^{?/}$*The child pounded in the nail *with a hammer with his*
         father

                              (Example taken from Nilsen (1973:27)).

It could be argued that those sentences in (139) are ungrammatical because two adjuncts cannot be introduced by the same preposition. However, the examples in (140) show that this statement is false:

(140) a.   En   Pere llegeix   *amb lupa*$_{MEANS}$ *amb molta*
             the-masc-sg Pere   reads-III-sg with magnifying glass with a lot of-fem

             facilitat$_{MANNER}$ (Catalan)
             ease
             'Pere reads with magnifying glass easily'
      b.   Marcos habla inglés *con Sara*$_{COMITATIVE}$ *con mucha*
             Marcos speaks English with Sara   *with a lot of-fem*
             soltura$_{MANNER}$ (Spanish)
             liberty
             'Marcos speaks English with Sara with a lot of liberty'

To account for these appearance restrictions, I suggest that some circumstantial adjuncts merge with the same category, and that only one adjunction to each category can take place. If these two proposals turn out to be correct, a 'Comitative Phrase' will not be able to coappear with an 'Instrumental Phrase', since I have argued that they must adjoin to the same category (VP).

In fact, (139a) and (139c) show that 'Comitative Phrases' cannot easily coappear with an 'Instrumental Phrase'. Therefore, to propose the same syntactic structure for both adjuncts and to suggest that there cannot be more than one adjunction to a category seem to be coherent hypotheses[45]. It could be argued that a DP cannot

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[45] In fact, Kayne (1994) proposes that there can be no more than one adjunct to each syntactic category because, if not, the Linear Correspondence Axiom would be violated. However, Kayne locates adjuncts in a specifier position, whereas I do not treat them as such.
    Despite appearances, a sentence like (i) is not a counterexample to my hypothesis:

control two PROs. However, there is no problem with PRO, since we can have sentences like (141), where the same DP controls two PROs.

(141) La   Mariona$_i$ va   prometre [PRO$_i$ estudiar] [per PRO$_i$
      the-fem-sg Mariona Past-aux-III-sg promise   PRO   study   to   PRO

      fer- me contenta]   (Catalan)
      make me happy-fem
      'Mariona promised to study in order to make me happy'

In fact, it has largely been noted in the literature that 'Instrumental Phrases' and 'Comitative Phrases' share some characteristics. Several authors (Lyons (1968:311), Marantz (1984:247-248) and Croft (1991:187), among others) point out that both 'Instrumental Phrases' and 'Comitative Phrases' can be introduced by the same preposition (*by* or *with*) or that they can be both marked with the same morphological case (for example, in Sanskrit and Russian). As I emphasise in Appendix-1, section 3.1, Croft (1991) considers Comitative, Instrumental, Means and Manner to be antecedent roles. Moreover, he defends that antecedent roles share the same markers. Therefore, it is not strange to postulate the same analysis for both the 'Comitative Phrase' and the 'Instrumental Phrase'.

In contrast with the 'Instrumental Phrase', the entity designated by the 'Comitative Phrase' holds a symmetric relationship with the Agent, while an Agent and an Instrumental hold an asymmetric relationship. This explains why a 'Comitative Phrase' can appear realized as a DP that is co-ordinated with the DP Agent (see (118b) and (119b), which I repeat below).

(i)   *Amb en   Ton* vam   trencar el   vidre *amb*
       with the-masc-sg Ton Past-aux-I-pl break   the-masc-sg glass with

       una   pedra
       (Catalan)
       a-fem-sg stone
       'With Ton, we broke the window with a stone'

As noted by Rigau (1989), (1990), the *pro* in subject position acts as a resumptive pronoun of the PP *amb en Ton* ('with Ton'), which is left dislocated. If the resumptive pronoun is in the subject position, there is no 'Instrumental Phrase' adjoined to the VP and a 'Comitative Phrase' can be licensed.

(118) b.   Paul is coming *with Mary*

(119) b.   Paul *and Mary* are coming

4.1.2. THE 'COMITATIVE PHRASE' OF A COMPLEMENT

As I highlighted above, there are verbs that require a plural object. For instance, the Catalan verb *enganxar* ('to glue') in one of its senses requires a plural direct object (see (142)).

(142) a.   La   Gemma enganxa el   full blanc *amb*
            the-fem-sg Gemma   glues   the-masc-sg paper white with

           el   full blau   (Catalan)
           the-masc-sg paper blue
           'Gemma glues the white paper with the blue one'

      b.   La Gemma enganxa el full blanc[46]

Although the PP introduced by the preposition *amb* ('with') in (142a) resembles more an argument than an adjunct, it could have the same syntactic structure as a 'Comitative Phrase' and an 'Instrumental Phrase' (see (143)).

(143)
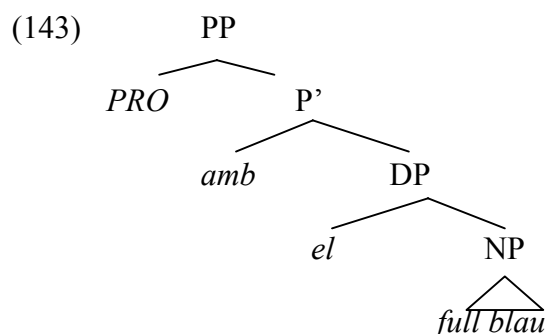
In contrast with the 'Instrumental Phrase' and the 'Comitative Phrase', the small clause in (143) should adjoin to the DP that works as direct object (in (142a), *el full blanc* 'the white paper'), since, if it adjoined to the VP, it would be impossible to

add a 'Comitative Phrase' or an 'Instrumental Phrase' to (142a). However, (144) illustrates that an 'Instrumental Phrase' can coappear with the PP *amb el full blau* ('with the blue paper').

(144) La   Gemma enganxa el   full   blanc *amb el*
       the-fem-sg Gemma   glues   the-masc-sg paper white with   the-masc-sg

       full   blau amb Blu-tack_{INSTRUMENTAL}
       paper blue   with   Blu-tack
       'Gemma glues the white paper with the blue one with Blu-tack'[47]

Since an 'Instrumental Phrase' can coappear with the PP *amb el full blau* ('with the blue paper'), it must be concluded that they should occupy different syntactic positions, since I maintained that there could only be one adjunction to each category.

Another solution would be to postulate that the verb requires a small clause, which is [*el full blanc* [*amb el full blau*]]. This small clause would merge into the complement position of the verb *enganxa* ('glues'). This analysis has the advantage that it proposes the same syntactic structure for a verb like (142a) as for (145).

(145) La   Mariona veu [en   Ton *amb el   barret*]
       the-fem-sg Mariona   sees   the-masc-sg Ton with the-masc-sg hat
       'Mariona sees Ton with the hat'   (Catalan)

---

[46] This sentence is grammatical as long as a Goal is understood.

[47] Obviously, if the verb that requires a plural direct object is not causative, it will not license an 'Instrumental Phrase'. For instance, *combinar* ('to combine') cannot license an 'Instrumental Phrase' because it is not causative:

(i)   [?]La   Gemma combina el   tennis *amb l'*
       the-fem-sg Gemma combines the-masc-sg tennis with the-masc-sg

       *aeròbic   amb el   xandall*_{INSTRUMENTAL}   (Catalan)
       aerobics with the-masc-sg tracksuit
       '*Gemma combines tennis with aerobics with the tracksuit'

However, in (i) there is no syntactic problem because the two PPs headed by the preposition *amb* ('with') adjoin to different categories. If (i) is anomalous, it is due to Conceptual Structure, not to syntax.

To sum up, in section 4.1, I have stated that a 'Comitative Phrase' introduced by the preposition *with* / *amb* (Catalan) / *con* (Spanish) is not derived from the conjunction *and*. Afterwards, I have focused my attention on the 'Comitative Phrase' and I have stated that it has exactly the same syntactic structure as an 'Instrumental Phrase' and that they are license alike. Therefore, they both form part of a small clause that must adjoin to the VP in order to be licensed. Basing on the fact that an 'Instrumental Phrase' cannot coappear with a 'Comitative Phrase', I have argued that some circumstantial adjuncts adjoin to the same syntactic category and that there cannot be more than one adjunction to each category. These two hypotheses account for some appearance restrictions. Finally, I have suggested that those verbs that require a plural direct object can express this plurality with a DP followed by a PP headed by the preposition *with* / *amb* (Catalan) / *con* (Spanish). I have suggested that, although this PP has the same syntactic structure as a 'Comitative Phrase' and an 'Instrumental Phrase', it does not adjoin to the VP.

4.2. THE 'MEANS PHRASE'

Along this work, I have referred as 'Means Phrase' to those PP headed by the preposition *with* / *amb* (Catalan) / *con* (Spanish) that are semantically similar to an 'Instrumental Phrase' and that cannot appear as a subject (see (146)).

(146) a.   L'   Elisenda mira   la   televisió *amb les*
           the-fem-sg Elisenda   watches the-fem-sg television with the-fem-pl

           ulleres noves   (Catalan)
           glasses new-fem-pl
           'Elisenda watches television with her new glasses'

     b.   **Les   ulleres noves*   miren la   televisió
           the-fem-sg glasses new-fem-pl watches the-fem-sg television
           '*Her new glasses watch television'

The main difference that exists between an 'Instrumental Phrase' and a 'Means Phrase' is that the former can only be licensed with causative verbs, whereas the latter is licensed with agentive verbs (with verbs that do not express a change of location or a change of state of the DP that appears as a direct object).

However, as I stated in section 1.2. for causative verbs, the notion *agentive* is conceptual, not syntactic. Therefore, agentive verbs are transitive verbs in syntax and they have exactly the same syntactic structure as a causative verb.

What I am going to propose next is that a 'Means Phrase' should have the same syntactic structure as an 'Instrumental Phrase' and a 'Comitative Phrase', as (147) exemplifies.

(147)

In fact, I suggest that this Means small clause must adjoin exactly to the same category as the 'Instrumental Phrase' and the 'Comitative Phrase' adjoin to (to the VP), which explains why we can never have a 'Means Phrase' with a 'Comitative Phrase' or an 'Instrumental Phrase' (see (139b), which I repeat below, and (148)).

(139) b. $^{?/}$*En   Jaume va   trencar el   vidre *amb*

the-masc-sg Jaume Past-aux-III-sg break   the-masc-sg glass with

una   *pedra*$_{INSTRUMENTAL}$ *amb la*   *lupa*$_{MEANS}$

a-fem-sg stone   with the-fem-sg magnifying glass

'Jaume broke the glass with a stone with the magnifying glass' (Catalan)

(148) $^{?/}$*L' Elisenda mira la televisió *amb les*
the-fem-sg Elisenda watches the-fem-sg television with the-fem-pl

*ulleres noves*MEANS *amb els seus pares*COMITATIVE (Catalan)
glasses new-fem-pl with the-masc-pl her-pl parents
'Elisenda watches television with her new glasses with her parents'

Regarding a sentence like (146b) (*Les ulleres noves miren la televisió* '*Her new glasses watch television'), I suggest that it does not encounter any syntactic problem, since the DP *les ulleres noves* ('her new glasses') occupies the specifier position of *v* and the DP *la televisió* ('the television') occupies the complement position of V. Therefore, the verb has two arguments as it requires. If (146b) is anomalous it is because of Conceptual Structure, not because of syntax. I remit the reader to Appendix-1, where following Ono (1992), I suggest that the 'Means Phrase' occupies a different conceptual position from the 'Instrumental Phrase', which explains why the former cannot appear as a subject and the latter can.

Thus, syntactically speaking, it is unworthy to differentiate between 'Instrumental Phrases' and 'Means Phrases', since they behave alike.

Finally, agentive verbs do not need to be transitive to license a 'Means Phrase' (see (149)).

(149) L' avi camina *amb un bastó*MEANS
the-masc-sg grandfather walks with a-masc-sg stick
'The grandfather walks with a stick' (Catalan)

In (149), there is the intransitive agentive verb *camina* ('walks') that licenses a 'Means Phrase'. Therefore, the PP *amb un bastó* ('with a stick') has exactly the same

syntactic structure that I have proposed for the 'Instrumental Phrase', the 'Comitative Phrase' and the 'Means Phrase'. In the same way as all these circumstantial adjuncts, the 'Means Phrase' in (149) also adjoins to the VP, which explains why a sentence like (150) is anomalous.

(150) $^{?/}$*L'   avi   camina *amb un*   *bastó*INSTRUMENTAL
        the-masc-sg grandfather walks   with   a-masc-sg stick

      amb en   *David*COMITATIVE   (Catalan)
      with the-masc-sg David
      '$^{?/}$*The grandfather walks with a stick with David'

Before reaching the conclusions of this chapter, it is interesting to note the following appearance restrictions:

(151) a. $^{?/}$*En   Joan escriu *amb un*   *bolígraf vermell*MEANS
        the-masc-sg Joan writes   with   a-masc-sg pen   red

      *cansat*SECONDARY PREDICATE   (Catalan)
      tired
      '$^{?/}$*Joan writes with a red pen tired'

    b. $^{?/}$*Marcos podaba   los   arbustos *con unas*
        Marcos   pruned-III-sg the-masc-sg shrubs   with a-fem-sg

      *tijeras*INSTRUMENTAL *cantando*SECONDARY PREDICATE   (Spanish)
      scissors   singing
      '$^{?/}$*Marcos pruned the shrubs with a pair of scissors singing'

The sentences in (151) contain an 'Instrumental Phrase' or a 'Means Phrase' and a secondary predicate orientated to the subject. It has been proposed that secondary predicates like those in (151) predicate of a PRO that refers to the subject. Since (151) shows that it is not possible to have two small clauses that refer to the same DP, it can be concluded that the secondary predicates in (l51) adjoin to the same syntactic position as an 'Instrumental Phrase' and a 'Means Phrase'; that is, to the VP. It could be

proposed that all the circumstantial adjuncts introduced by the preposition *with / amb* (Catalan) / *con* (Spanish) should share the same syntactic structure (a small clause with a PRO in the specifier position) and that they should differ in the position they adjoin to. For example, since 'Manner Phrases' headed by the preposition *with / amb* (Catalan) / *con* (Spanish) can coappear with 'Instrumental Phrases', 'Comitative Phrases' and 'Means Phrases' (see Appendix-2, section 2, and (152)), it should not adjoin to the VP.

(152) La   Mariona es discuteix *amb en*   *Ton*_{COMITATIVE}
     the-fem-sg Mariona pr argues   *with the-masc-sg Ton*

     amb molta   *facilitat*_{MANNER}   (Catalan)
     with a lot of-fem facility
     'Mariona argues with Ton easily'

To determine where 'Manner Phrases' would adjoin to requires a full study of circumstantial adjuncts, which goes far beyond the aims of this work. Therefore, I conclude this section stating that 'Instrumental Phrases', 'Comitative Phrases' and 'Means Phrases' occupy the same syntactic position and that a more detailed analysis of circumstantial adjuncts is needed so as to determine where each of them must adjoin to.

In summary, in this chapter I have made reference to Gràcia's analysis of causative verbs, which are the verbs that can license an 'Instrumental Phrase'. Afterwards, I have maintained that causative verbs are not distinguished from transitive stative or agentive verbs in syntax because, after all, they are transitive verbs. As far as the 'Instrumental Phrase' is concerned, I have proposed that it is a PP that forms part of a small clause that adjoins to the VP. Obviously, if there is no Instrumental PP in the sentence, no PP will adjoin to the VP. Later, I have argued that an Instrumental subject is a syntactic argument of the predicate that is directly merged into the subject position in order to satisfy the thematic role Originator. In fact, the Instrumental subject will be related to the 'Instrumental Phrase' in Conceptual Structure, not in syntax (see Appendix-1, for a possible analysis). Finally, I have suggested that 'Comitative

Phrases' and 'Means Phrases' share the same syntactic structure and that they are adjoined to the same position as 'Instrumental Phrases'.

In fact, the syntactic analysis I have defended for the 'Instrumental Phrase' allows the formation of a sentence like (3b), which I repeat below.

(3)   b.   *Paul loves music *with his glasses*INSTRUMENTAL

As I suggested in footnote 47, there is no syntactic problem with (3b) because there is a small clause that adjoins to the VP and no other syntactic object adjoins to the same category. Moreover, the DP *Paul* can control the PRO that is in the subject position of the Instrumental small clause. If this sentence is ungrammatical, it is because *loves* is not a causative verb in Conceptual Structure, which explains why it cannot license an 'Instrumental Phrase'[48].

---

[48] For a conceptual approach, I remit the reader to Appendix-1, where I suggest that causative verbs have a different conceptual representation from non-causative verbs, since the former can have two *cause* functions. In contrast, the latter can only have one, since a verb like *loves* does not express any transmission of force.

CONCLUSIONS

_____

In the present work, I have dealt with the Instrumental PP that is introduced by the preposition *with* / *amb* (Catalan) / *con* (Spanish) and that can appear as the subject of the sentence. Following Matthews (1981), Speas (1990) and Rigau (in press), I argue that the 'Instrumental Phrase' is a circumstantial adjunct, since, despite not being required by the verb, it can cliticise with *hi* in Catalan, it can be incorporated into the verb in some languages, and it can agree with the verb.

Keeping in mind that several authors (Gruber (1965), Nilsen (1973), Gràcia (1989a), (1989b) and Rigau (in press)) have proposed that the verbs that license an 'Instrumental Phrase' or an Instrumental subject must be causative, I point out that causative verbs do not have any especial syntactic structure that differentiates them from other transitive verbs. Basing on this fact, I state that causative verbs should be distinguished from other transitive verbs in Conceptual Structure. For instance, in Appendix-1, I suggest that causative verbs have a Conceptual Structure with two *cause* functions, whereas other verbs have only one.

Since I conceived this work as a research exercise, I contrast two possible syntactic analyses of 'Instrumental Phrases'. The first one, which I clearly reject, was based on Kayne's (1994), who relates the 'Instrumental Phrase' to the subject DP. Despite being very innovative, this analysis had the problem that could not deal with passive sentences that contain an 'Instrumental Phrase' or with sentences where the proVP *do it* / *fer-ho* (Catalan) / *hacerlo* (Spanish) includes an 'Instrumental Phrase', for example. In contrast, following Suñer (1988), I defend another syntactic analysis which states that the 'Instrumental Phrase' is part of a small clause that has the empty category PRO in the specifier position and that has to adjoin to the VP in order to be licensed. The PRO is controlled by the DP that is interpreted as an Agent in Conceptual Structure. Therefore, my analysis has two main advantages, since it still relates the 'Instrumental Phrase' to the DP subject as Kayne (1994) suggests, though in an indirect way. Second, it can deal with the problems the first analysis encounters straightforwardly. I also highlight that the preposition *with* / *amb* (Catalan) / *con* (Spanish) is a stative preposition, which expresses coincidence between two entities (the one in the complement position of the preposition and the PRO, which is in the specifier position).

Afterwards, I state that the Instrumental subject is not related to the 'Instrumental Phrase' in syntax because they occupy different syntactic positions. While an 'Instrumental Phrase' is a small clause that adjoins to the VP, the Instrumental subject is a DP that appears directly in the specifier position of the light verb *v* (subject position). Therefore, if they are to be related to each other, it is not in syntax, but in Conceptual Structure. Basing on this idea, in Appendix-1, I suggest that both 'Instrumental Phrases' and Instrumental subjects share the same Conceptual Structure and that they differ in correspondence rules.

Finally, I extend the analysis I defended for 'Instrumental Phrases' to 'Comitative Phrases' and 'Means Phrases'. I suggest that these three types of circumstantial adjuncts are licensed alike, since they are formed by a small clause that has a PRO in the specifier position. Concerning 'Comitative Phrases', I argue that they are not a subtype of co-ordination as Kayne (1994) proposes. As far as 'Means Phrases' are concerned, I state that, if they appear as a subject, there is no syntactic problem, since the verb has as many arguments as it requires. The problem must be conceptual.

Moreover, I propose that 'Comitative Phrases' adjoin to the same position as 'Instrumental Phrases' and that there cannot be more than one adjunction to each category, which explains why 'Instrumental Phrases' cannot appear with 'Comitative Phrases' in the same sentence. In addition, I suggest that secondary predicates orientated to the subject adjoin to the same category (VP), which explains why an 'Instrumental Phrase' cannot appear with a secondary predicate orientated to the subject.

However, 'Instrumental Phrases' can perfectly appear with other circumstantial adjuncts (for instance, with 'Benefactive Phrases' or 'Manner Phrases'). According to what I propose for 'Comitative Phrases' and 'Means Phrases', it would be expected that 'Manner Phrases' and 'Benefactive Phrases' did not adjoin to the VP, since they can appear with an 'Instrumental Phrase'. To determine where each circumstantial adjunct merges, it is necessary to carry out a strict characterisation and an exhaustive analysis of each type of circumstantial adjuncts, which will be the aim of my further research.

APPENDIX - 1

HYPOTHESIS C: A CONCEPTUAL APPROACH

This appendix, which is organised in four sections, is devoted to presenting a third hypothesis about Instrumentals, which is conceptual. The first and the second sections deal with Jackendoff's (1987), (1990) conception of grammar and his analyses of Instrumentals. After pointing out the pros and the cons of Jackendoff's analyses of 'Instrumental Phrases' and Instrumental subjects, I suggest another conceptual analysis of 'Instrumental Phrases' in section 3. Following Ono (1992), I propose that an Instrumental should always appear in the Thematic Tier of causative verbs, since the notion of causal chain is crucial. Moreover, I suggest that 'Instrumental Phrases' and Instrumental subjects share the same Conceptual Structure. If they are realized in a different position in syntax, it is due to different correspondence rules. In the last section, I focus on Instrumentals that designate inalienable possession. As I highlight repeatedly, I do not pursue either Jackendoff's (1987), (1990) or Ono's (1992) conceptual analysis of Instrumentals because they encounter some problems (for example, they obviate the preposition *with*, which plays no role in their analysis).

1. JACKENDOFF'S FRAMEWORK

Jackendoff (1987), (1990) assumes a tripartite architecture of grammar and states that there are three generative components: Phonological component, Syntactic component and Conceptual Structure (see (153)).

(153) *The Tripartite parallel Architecture*
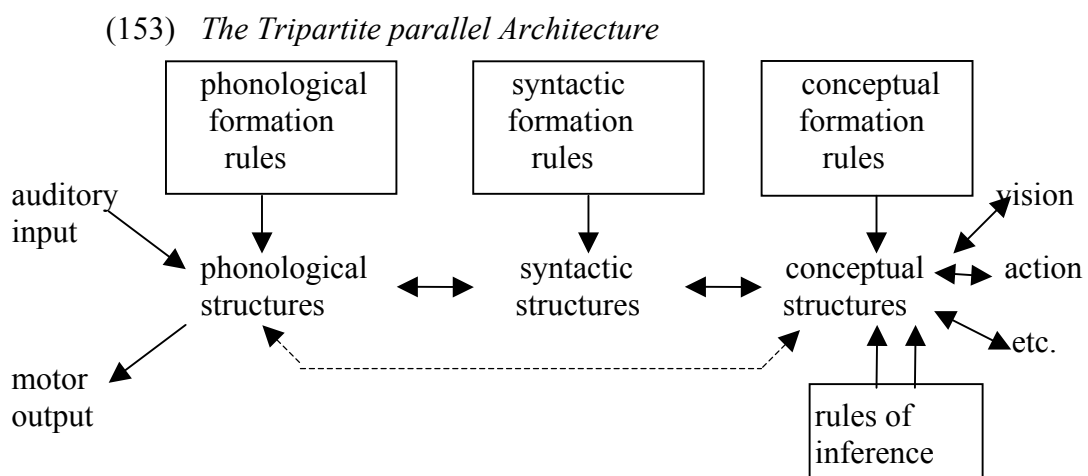
Each of these generative components has its own primitives and principles of combination. Jackendoff is not interested in the vertical derivation of one of these components, but in the horizontal relation between two of them. In other words, he is interested in the interface between syntactic and conceptual components. In contrast, Chomsky (1981), (1986), (1995) focuses his attention on syntax.

To account for the interface Syntax-Conceptual Structure, Jackendoff (1987), (1990) postulates a set of *correspondence rules* of the sort illustrated in (154).

(154) a.
$$\begin{bmatrix} \text{dress} \\ \text{V} \\ \underline{\quad} \ NP_j \ <PP_k> \\ [\text{CAUSE} ([\quad]_i, [\ \text{GO} ([\quad]_j, [\ \text{TO} ([\ \text{IN} [\ \text{CLOTHING} \ ]]_k)])])] \end{bmatrix}$$

(Taken from Jackendoff (1990:66)).

b.
$$\begin{bmatrix} \text{buy} \\ \text{V} \\ \underline{\quad} \ NP_j \ <\text{from } NP_k> \\ \begin{bmatrix} \text{GO}_{\text{Poss}} ([\quad]_j, \ \begin{bmatrix} \text{FROM} [\quad]^{\alpha}_k \\ \text{TO} [\quad]^{\beta}_i \end{bmatrix}) \\ [\text{EXCH} [\text{GO}_{\text{Poss}} ([\text{MONEY}], \ \begin{bmatrix} \text{FROM} \ [\beta] \\ \text{TO} [\alpha] \end{bmatrix})]] \end{bmatrix} \end{bmatrix}$$

(Example taken from Jackendoff (1990:63)).

The Greek superscripts stipulate binding between different conceptual positions and the Roman subscripts stipulate correspondence between syntactic and conceptual positions. Therefore, the Roman subscripts play no role in Conceptual Structure.

It is important to note that, although the syntactic representations that Jackendoff uses are representational, he leaves open the possibility to conceive the phonological and the syntactic components as derivative.

In contrast with Chomsky's view of grammar, Jackendoff (1987), (1990) assumes that there is no component called *lexicon.* He states that the lexicon is part of the system of correspondence rules between the three generative components.

As far as the Conceptual Structure component is concerned, Jackendoff (1987:375) states that it is formed by innate formation rules, which include primitive conceptual categories such as *Thing, Place, Path,* etc. These innate formation rules allow expanding primitive conceptual categories into more complex expressions, as can be seen in (155):

(155) a.　　PLACE ➤ [_Place_ PLACE-FUNCTION (Thing)]

b.

$$\text{PATH} \longrightarrow \left[\left\{ \begin{array}{l} \text{TO} \\ \text{FROM} \\ \text{TOWARDS} \\ \text{AWAY-FROM} \\ \text{VIA} \end{array} \right\} \left(\left\{ \begin{array}{l} \text{THING} \\ \text{PLACE} \end{array} \right\} \right) \right]$$

c.　　EVENT ➤ $\left\{ \begin{array}{l} [_{Event} \text{ GO (THING, PATH) }] \\ [_{Event} \text{ STAY (THING, PLACE) }] \end{array} \right\}$

d.　　STATE ➤ $\left\{ \begin{array}{l} [_{State} \text{ BE (THING, PLACE)}] \\ [_{State} \text{ ORIENT (THING, PATH)}] \end{array} \right\}$

(Taken from Jackendoff (1987:375)).

In fact, when a new concept is acquired, we combine the conceptual categories of (155). Needless to say, these ideas sharply contrast with Fodor's (1970) work, which defends the non-lexical decomposition of predicates.

Jackendoff (1987) organises the Conceptual Structure in three tiers: the *Thematic Tier*, which is related to movement and location; the *Action Tier*, related to notions as Agent and Patient, and the *Temporal Tier*, which establishes the temporal framework around which events are organised. In contrast, Jackendoff (1990) only uses two of these tiers: the Thematic Tier and the Action one. The fact of dispensing with one tier obliges him to change some aspects of his analysis of Instrumentals.

As far as thematic roles are concerned, Jackendoff (1990:46-47) maintains that they are not syntactic primitives, but part of Conceptual Structure (they constitute structural configurations of it). In fact, as I suggested in Chapter Two, it can be argued that the only part of grammar where it is relevant to distinguish between the thematic roles Instrument, Agent and Cause is Conceptual Structure, not syntax.

As he maintains that Conceptual Structure is universal and that languages differ in correspondence rules, the Conceptual Structures he proposes for English are valid for other languages such as Catalan or Spanish.

Once described the main characteristics of Jackendoff's framework, I will summarise how he analyses Instrumentals in the next section.

2. JACKENDOFF'S (1987), (1990) ANALYSES OF INSTRUMENTALS

In the two works I am referring to, Jackendoff always analyses the English examples of (156).

(156)	a.	*The car* hit the tree	➡ Instrumental in subject position[49]
	b.	Sue hit Fred *with a stick*	➡ Instrumental PP
	c.	Sue hit Fred	➡ Implicit and lexically specified Instrumental

I will describe how Jackendoff deals with each instance of (156) in three different subsections. The first one is about the Instrumental in subject position, the second one is about the 'Instrumental Phrase' and the final one, about implicit and
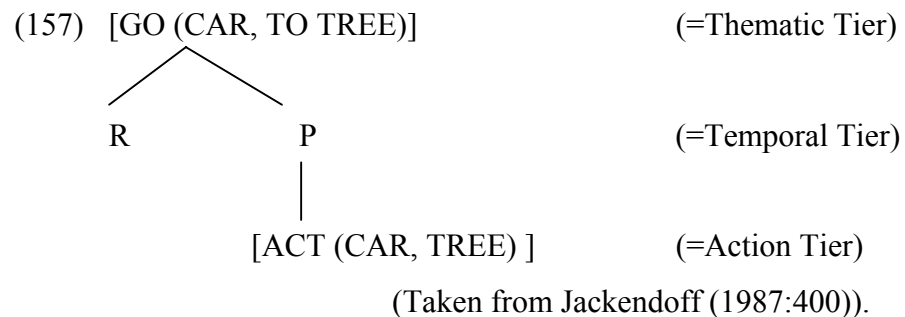
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[49] Although Jackendoff (1987), (1990) never says that *the car* is an Instrumental subject, he always deals with it in the section devoted to Instrumentals. He may do so in order to unify the uses of the verb *hit.* In fact, he would analyse *this key* in (i) in the same way as *the car* in (156a).

    (i)   *This key* opened the front door

lexically specified Instrumentals. In each section, I contrast the analysis he defends in his 1987 work and the analysis he defends in his 1990 work.

2.1. INSTRUMENTAL IN SUBJECT POSITION

Jackendoff (1987) proposes that a sentence like (156a) (*The car hit the tree*) should have the Conceptual Structure of (157).

(157)   [GO (CAR, TO TREE)]   (=Thematic Tier)

          R   P   (=Temporal Tier)

        [ACT (CAR, TREE)]   (=Action Tier)

               (Taken from Jackendoff (1987:400)).

The Thematic Tier indicates the movement that the car makes towards the tree. The Temporal Tier shows that, even if the movement can take place in a region of time (R), there is a point (P) in which the tree and the car end up being in contact. The Action Tier shows that the Instrumental acts directly on the Patient.

Jackendoff (1990:295, fn. 8) clarifies that the Instrumental in the subject position is an inanimate Instigator; in other words, it is an inanimate Agent and not a grammatical Instrument. Therefore, the only grammatical Instrument is the one that appears as an adjunct in Conceptual Structure and as a PP in syntax (for example, (156b) (*Sue hit Fred with a stick*)). Nevertheless, Jackendoff goes on using the label *Instrumental* to refer both to the PP and to the subject.

This explanation, though, clarifies why, when Jackendoff (1990:258-268) proposes a thematic hierarchy for the arguments of a predicate, he does not postulate an Instrument thematic role: the Instrumental in subject position is understood as a subtype of the thematic role Agent, while the Instrumental PP is an adjunct and, as such, it does not deserve to be taken into account in the thematic hierarchy.

Following Jackendoff (1990:93), two Conceptual Structures could account for (156a) (*The car hit the tree*) at first sight:

(158) a.   [$_{Event}$ GO ([x], [$_{Path}$ TO ([$_{Place}$ Y])])]

      b.   [$_{Event}$ INCH ([$_{State}$ BE ([x], [$_{Place}$ Y])])]

Jackendoff (1990) realizes that having two equivalent Conceptual Structures is redundant and unworthy. However, not only cannot (158a) be reduced to (158b) or vice versa but also they are both needed. GO can appear with very different Goals and diverse *Path-functions*, characteristics that a function like (158b) cannot account for. On the other hand, (158b) is the Conceptual Structure of functions *ORIENT-State* and *EXT-State*, which do not denote an explicit movement (for example, *The railroad finally reached Kansas City* (example taken from Jackendoff (1990:92)).

Jackendoff proposes three criteria to fix when we have (158a) and when we have (158b). One of the criteria, which is the one I am interested in for the Instrumental adjunct, is the following: '*If the verb in question has two senses that are related by the inchoative relation (...), it is likely an INCH-verb*' (Jackendoff (1990:94)). Since most causative verbs have an inchoative version, he states that they have the Conceptual Structure of (158b).

Sentences like (156a) (*The car hit the tree*) mean that the movement of *the car* culminates in a state where the car is in contact with the Patient *the tree*. The analysis (158b) states directly this final contact, whereas in (158a) it must be stipulated. Jackendoff (1990) stipulates it adding a subscript *c* to the Conceptual Structures of (158), which are used to refer to the verbs of (159):

(159) a.   *Pure contact:* NP$_i$ touch/contact NP$_j$

           [$_{State}$ BE$_c$ ([   ]$_i$, [$_{Place}$ AT$_c$ [   ]$_j$])]

      b.   *Impact:* NP$_i$ hit/strike NP$_j$

           [$_{Event}$ INCH [$_{State}$ BE$_c$ ([   ]$_i$, [$_{Place}$ AT$_c$ [   ]$_j$])]   (=(158b))

      c.   *Moving contact:* NP$_i$ stroke/scratch NP$_j$

           [$_{Event}$ GO$_c$ ([   ]$_i$, [$_{Path}$ VIA$_c$ [$_{Place}$ AT$_c$ [   ]$_j$]])   (=(158a))
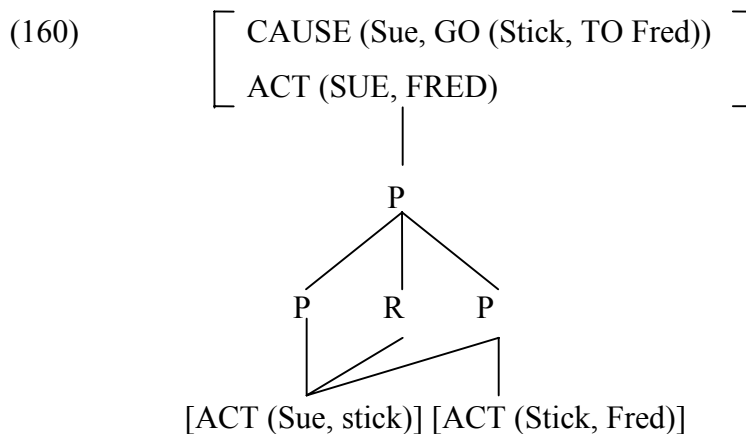
Therefore, Jackendoff (1990) defends that the Instrumental subject receives the analysis of (158b).

However, in his 1987 work, he defended an analysis like (158a). Why does he change it? He changes it because in 1987 he could explain the final contact between *the car* and *the tree* in (156) (*The car hit the tree*) with the Temporal Tier. Since now he does without this tier, he must explain the final contact in some other way and he opts for changing the Conceptual Structure.

Jackendoff (1990) comments on that (159b) is the basic Conceptual Structure of a verb like *hit*. However, this Conceptual Structure is more complex when there is an 'Instrumental Phrase', as it will be illustrated in the next section.

2.2. THE INSTRUMENTAL PP

Jackendoff (1987) states that (156b) (*Sue hit Fred with the stick*INSTRUMENTAL) has the Conceptual Structure of (160):

(160)
$$
\begin{bmatrix}
\text{CAUSE (Sue, GO (Stick, TO Fred))} \\
\text{ACT (SUE, FRED)}
\end{bmatrix}
$$

P

P   R   P

[ACT (Sue, stick)] [ACT (Stick, Fred)]

(Taken from Jackendoff (1987:401)).

In this case, the Action Tier indicates that the Agent acts on the Instrument, which then acts on the Patient.

Jackendoff (1990:142) describes the characteristics of the 'Instrumental Phrase', which coincide with the ones sketched out in Chapter One, for the (Intermediary) Instrumental:

a.   '*It plays a role in the means by which the Actor accomplishes the action*'.

b.   '*The Actor acts on the Instrument*'

c.   '*The Instrument acts on the Patient. More subtly, it is the fact that the Actor acts on the Instrument that results in the Instrument acting on the Patient*'.

Jackendoff (1990:142) gives the cases of (161) as examples:

(161) a.   Phil opened the door *with a key*

b.   Sam broke the window *with a hammer*

According to him, they have the Conceptual Structures of (162), respectively:

(162) a.
$$\begin{bmatrix} CS^{+} \ ([PHIL], [INCH \ [BE \ ([DOOR], [OPEN])])]) \\ AFF^{-} \ ([PHIL], [DOOR]) \\ [BY \begin{bmatrix} CS^{+} \ ([PHIL], [AFF^{-} \ ([KEY], [DOOR])]) \\ AFF^{-} \ ([PHIL], [KEY]) \end{bmatrix}] \end{bmatrix}$$

b.
$$\begin{bmatrix} CS^{+} \ ([SAM], [GO_{Comp+} \ ([WINDOW], [TO \ [\quad]])]) \\ AFF^{-} \ ([SAM], [WINDOW]) \\ [BY \begin{bmatrix} CS^{+} \ ([SAM], [AFF^{-} \ ([HAMMER], [WINDOW])]) \\ AFF^{-} \ ([SAM], [HAMMER]) \end{bmatrix}] \end{bmatrix}$$

(Taken from Jackendoff (1990:142)).

CS^{+} is the notation that Jackendoff (1990) uses to express a causative relation (*CAUSE*). *AFF* belongs to the Action Tier: the first argument is the Actor and the second one is the Patient. Jackendoff (1990:134) characterises the AFF function with some additional features: a superscript $^{-}$ means that the second argument, the Patient, is negatively affected. A superscript $^{+}$ means that the second argument is positively

affected (then it is interpreted as a Beneficiary). The superscript ^{0} means that there is a nonopposition relation. As it can be seen in both Conceptual Structures of (162), the AFF function is characterised as negative. Although it may be true that the window may be negatively affected by the action of breaking, I do not understand why the action of opening has to be regarded as negative. Besides, is this kind of information encoded in any especial way in syntax? As far as I can see, the answer of this question would have to be negative. For this reason, I will not make use of this kind of superscripts when proposing another conceptual representation. Finally, in (162b), *Comp*$^+$ means 'the whole completed unit'.

Returning to Jackendoff's (1990) analysis of 'Instrumental Phrases' of (162), the Instrumental is a conceptual adjunct that appears as a means expression (BY), which modifies the main event. Jackendoff (1990) proposes an *adjunct rule* to interpret 'Instrumental Phrases' (see (163)).

(163)   If V corresponds to $\begin{bmatrix} ... \\ \text{AFF}^- ([X], [Y]) \end{bmatrix}$

and NP corresponds to [Z], then [$_S$ ... [$_{VP}$ V ... [$_{PP}$ with NP] ...] ...] may correspond to

$$\begin{bmatrix} ... \\ \text{AFF}^- ([X]^{\alpha}, [Y]^{\beta}) \\ [\text{BY} \begin{bmatrix} \text{CS}^+ ([\alpha], [\text{AFF}^- ([\gamma], [\beta])]) \\ \text{AFF}^- ([\alpha], [Z]^{\gamma}) \end{bmatrix}] \end{bmatrix}$$

(Taken from Jackendoff (1990:188)).

It would be expected that a sentence like (156b) (*Sue hit Fred with a stick*) would have the Conceptual Structure of (162a) or (162b). However, its Conceptual Structure is slightly different from the ones in (162):

(164) $\begin{bmatrix} \text{CS}^+ ([\text{SUE}], [\text{INCH} [\text{BE}_c ([\text{STICK}], \text{AT}_c [\text{FRED}])]]) \\ \\ \\ \\ \\ \end{bmatrix}$

AFF⁻ ([SUE], [FRED])

$$\left[BY \begin{bmatrix} CS^{+} \text{ ([SUE], [AFF}^{-} \text{ ([STICK], [FRED])])} \\ AFF^{-} \text{ ([SUE], [STICK])} \end{bmatrix} \right]$$

(Taken from Jackendoff (1990:143)).

Surprisingly, in (164) the Instrumental also appears in the Thematic Tier. Therefore, Jackendoff (1990) does not present a unique analysis for the 'Instrumental Phrase'. The analysis of (164) coincides with the one he postulated in 1987, since the Instrumental also appeared in the Thematic Tier. However, in the 1990's analysis he states that the Instrumental is a conceptual adjunct. Why does he put the Instrumental in the Thematic Tier and in the Action Tier in (164), then? I suppose because of the verb.

2.3. IMPLICIT AND LEXICALLY SPECIFIED INSTRUMENTAL

Jackendoff (1987:401) states that, although there is no 'Instrumental Phrase' in a sentence like (156c) (*Sue hit Fred*), there is a conceptual Instrument because the conceptual object that moves is Sue's hand. If no other Instrumental appears realized syntactically, the hand is the conceptual Instrument that appears by default with the verb *hit*.

Jackendoff (1990) reasserts it: if there is no other Instrumental specified, *hand* is the Instrument that appears by default. In this case, there is an Instrument in Conceptual Structure (*hand*), which does not appear in syntax (see (165)).

$$(165) \begin{bmatrix} CS^{+} \text{ ([SUE], [INCH [BE}_c \text{ ([HAND], AT}_c \text{ [FRED])]])} \\ AFF^{-} \text{ ([SUE], [FRED])} \\ \left[BY \begin{bmatrix} CS^{+} \text{ ([SUE], [AFF}^{-} \text{ ([HAND], [FRED])])} \\ AFF^{-} \text{ ([SUE], [HAND])} \end{bmatrix} \right] \end{bmatrix}$$

In a sentence like (166),

(166)   Pete hit the ball into the field <with a stick>

(Taken from Jackendoff (1990:144)).

if the 'Instrumental Phrase' *with a stick* is present, it behaves like (164). If it is not realized syntactically, there is an implicit Instrumental in Conceptual Structure, though it is not *hand.*

As a result of what is described above, not all conceptual constituents correspond to one syntactic constituent. In contrast, each major syntactic constituent of a sentence must map into a conceptual constituent of the sentence. This shows that the mapping between syntax and Conceptual Structure is not one-to-one, but many-to-many.

2.4. BALANCE OF JACKENDOFF'S ANALYSES

The first problem of Jackendoff's analyses is that they are not systematic at all: in some cases, he analyses the verbs that license an 'Instrumental Phrase' with an INCH function (see (162a)) and, in other cases, he analyses them with a GO function (see (162b)). In some instances (see (162)), the Instrumental only appears in the Action Tier while, in others (see (164) and (165)), it also appears in the Thematic Tier. Some verbs (for instance, *to hit*) have the Instrumental specified as a selectional restriction. However, if this verb appears with a certain complement (for instance, *into the field*), the implicit Instrumental is no longer *hand* (see (166)). As Bouchard (1995:11) says, Jackendoff does not take into account the fact that, in a sentence like (156c) (*Sue hit Fred*), it is a part of Sue's body, not necessarily her hand, that hits Fred. In fact, Jackendoff himself admits that the analysis he presents for Instrumentals is not the only analysis available in his framework (Jackendoff (1990:295, fn. 8)). This lack of restriction is tightly related to another criticism that has often been stated to Jackendoff's works: why are there those conceptual primitives and not others?[50] In fact, the same problem surrounded thematic roles, since restriction was lacking.

Second, it is not clear in which cases there is an implicit Instrumental in Conceptual Structure. In a sentence like *Sam broke the window* (cf. (161b)), is there an

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[50] This criticism is also noted in Mateu (1997). I leave aside this issue because it is not part of the goals of the present work.

implicit Instrumental? If there is none, how can we differentiate the verbs that have a lexically specified Instrumental (for instance, *to hit* and *to kick*) from those that do not have any Instrumental specified? I will examine what consequences would appear if it were proposed that all causative verbs have an Instrumental in their Conceptual Structure.

Third, Jackendoff never states that there are two types of Instrumentals, since he never refers to what I call 'Means Phrase' (Facilitating Instrumental in Marantz's terms). As I will highlight later, Ono (1992) suggests that the Means adjunct has a different Conceptual Structure from 'Instrumental Phrases'. However, this proposal encounters some problems too.

Similarly to Gràcia (1989a), (1989b), Jackendoff does not comment on the fact that there are verbs that license an 'Instrumental Phrase' and do not enter the ergative-causative alternation (remember (51a) (#*El terra es cobrirà* 'The floor will be covered')). However, he makes use of this alternation to determine if the sentence *The car hit the tree* (=(156a)) has the Conceptual Structure of (158a) or (158b) (see section 2.1).

Fifth, Jackendoff does not relate the Instrumental subject to the 'Instrumental Phrase' in Conceptual Structure. If, as I proposed in Chapter Two, they are not related in syntax and, if as Jackendoff proposes, they are not related in Conceptual Structure, where are they to be related to each other? I will examine what consequences to propose that they share the same Conceptual Structure has.

Finally, as pointed out by Honda (1994:222), Jackendoff (1987), (1990) does not pay attention to the preposition *with*. However, as I stressed in Chapter Two, it is relevant to determine why the preposition is *with* and not *to*.

Despite these criticisms, when suggesting another conceptual analysis for Instrumentals, I will adopt Jackendoff's framework and conceptual primitives.

3. AN ALTERNATIVE CONCEPTUAL ANALYSIS

Once described Jackendoff's (1987), (1990) analyses of 'Instrumental Phrases' and Instrumental subjects, I am going to weigh the advantages and the drawbacks that would appear when proposing a unique Conceptual Structure for both the 'Instrumental Phrase' and the Instrumental subject.

It could be argued that, if we change the Conceptual Structure that Jackendoff proposes for 'Instrumental Phrases' and Instrumental subjects, most of his problems can be dispensed with. To do so, the notion *Action chain* or *Causal chain* is crucial.

3.1. ACTION OR CAUSAL CHAIN

Demonte (1994:540) states that there are two sorts of agentive verbs, some of which imply a direct or primitive agentive act, while others imply a causal chain.

(167) Les presentó   (a)   su   hija   a los   nuevos
dat   introduced-III-sg (prep-acc) his/her daughter to the-pl new-masc-pl

vecinos   (Spanish)
neighbours-masc
'He/She introduced his/her daughter to the new neighbours'
(Example taken from Demonte (1994:539)).

(168) Juan Smith incendia Malibú   (Spanish)
Juan Smith   sets on fire Malibu
'Juan Smith sets on fire Malibu'
(Example taken from Demonte (1994:540)).

In (167), there is no intermediary, since the only person who carries out the action denoted by the verb is the subject (*pro*$_{III sg.}$). On the other hand, in order to carry out the action of setting Malibu on fire, the Agent of (168) has to do a serial of activities. For instance, he has to take a match or a piece of wood or paper to set it on

fire, etc. To carry out these activities, the Agent can count with the help of an intermediary participant. This participant is what I have called 'Instrumental Phrase'.

In fact, several authors (Chafe (1970:152), Nilsen (1973), Langacker (1990), (1991), Croft (1991) and Huumo (1998)) point out the tight relation that exists between an Agent and an Instrument. For example, Nilsen (1973:100) says: '...*there is a difference between Agent Cause and Instrument Cause, in that Agent Cause is the principal, or initiating Cause, while Instrument Cause is manipulated in some sense by the Principal Cause*'.

Langacker (1990:216), (1991:285) states that there are action chains, which express three participants (an Agent, an Instrument and a Patient):

(169)

AG   INSTR   PAT
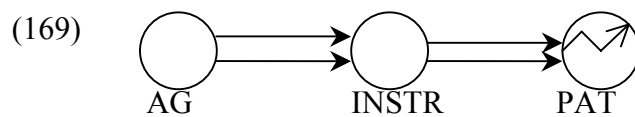
(Taken from Langacker (1990:217)).

The double arrows indicate transmission of force from the Agent to the Patient through the manipulation of an inanimate entity that is represented by the Instrument. The squiggly arrow indicates the change of state suffered by the Patient, as the result of the transmission of energy. Thus, the Agent transmits force to the Instrument and the Instrument, in turn, transmits force to the Patient.
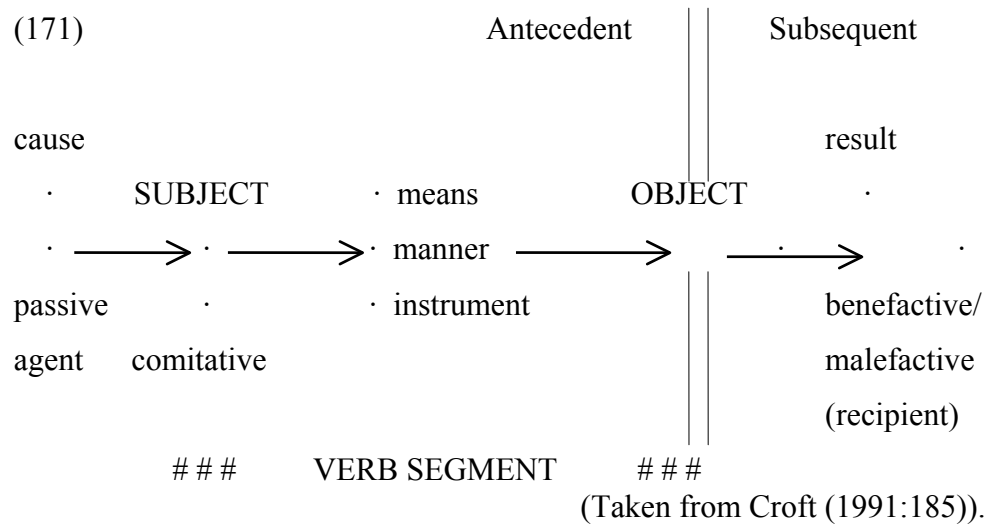
Croft (1991:162-163), and Huumo (1998:58) quotes him, states that causation can be represented through a *causal order* or *causal chain*. According to Croft (1991:163), related events must share some participant and the entity at the endpoint of the first event must be the initiator of the second event and successively (see (170)).

(170) *x*   *y*   *z*
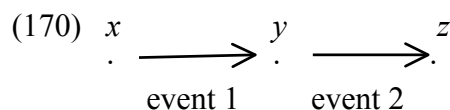
      event 1   event 2   (Taken from Croft (1991:163)).

According to Croft, the directionality of the action chain is determined by the directionality of the transmission of force. In (170), *x* transmits force to *y* and, in its

turn, *y* transmits force to *z*. Therefore, the transmission of force is asymmetric. This asymmetry makes evident that not all participants play the same role. Basing on these ideas, Croft postulates the following distribution of thematic roles in the causal chain:

(171)   Antecedent ‖ Subsequent

cause   result
·   SUBJECT   · means   OBJECT   ·
· ——→ · ——→ · manner ——————→ · ——→ ·
passive   ·   · instrument   ‖   benefactive/
agent   comitative   malefactive
                                                        (recipient)

VERB SEGMENT   # #
(Taken from Croft (1991:185)).

Croft divides thematic roles into two major groups: the ones that precede the object in the action chain and the ones that follow it. What I am really interested in now is in the fact that Croft locates the Instrument exactly between the subject and the object, which reflects the asymmetric action chain. Moreover, he groups together Means, Instrument and Manner. As I pointed out in Chapter Two, section 4.1.1, Croft (1991:187) defends that antecedent thematic roles share the same case markers (*with/by*), which explains why *with* subsumes instrument, manner and comitative values. In fact, in Chapter Two, I proposed that the 'Means Phrase', the 'Instrumental Phrase' and the 'Comitative Phrase' should share the same syntactic structure and that they should be licensed alike.

Relying on the fact that Instrumentals are closely related to Agents, Huumo (1998) distinguishes three types of Instrumentals in Finnish: prototypical instrumentals, cause instrumentals and instrumentals expressing conditions. Prototypical instrumentals indicate an entity (realized as a PP) that is used volitionally by the agent of the sentence:

(172) Elmeri löi   kiveä   vasaralla   (Finnish)

Elmer   hit+PST+3SG stone+PAR hammer+ADE

'Elmer hit the stone with a hammer'

(Example taken from Huumo (1998:60)).

A cause instrument is an instrument that is not used by the subject of the sentence, but by an implicit agent (see (173)).

(173)   Puu kaatui   kirveellä   (Finnish)

tree fall+PST+3SG axe+ADE

'The tree fell with an axe'

(Example taken from Huumo (1998:62)).

The last sort of Instrumental is equivalent to a *free adjunct,* since it introduces a condition (see (174))[51].

(174)   Suomalaisella miehistöllä Estonia olisi   ohjattu

Finnish+ADE   crew+ADE   Estonia   be+COND+3SG steer+PASS.PRTC

lähtösatamaan   (Finnish)

port-of-departure+ILL

'With a Finnish crew, the Estonia would have been taken back to its port of departure'

(Example taken from Huumo (1998:66)).

In short, all these authors state that the main difference between an Agent and an Instrument is that the former starts the action volitionally, while the latter cannot act volitionally and independently, since it needs the presence of an Agent. Thus, I understand by causative verb a verb that, in Conceptual Structure, entails a causal chain and ends up provoking a change of state or change of location to the Patient (to the entity that is syntactically realized as a direct object).

Therefore, there are conceptual reasons to relate an Instrumental to the

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[51] For a characterisation of free adjuncts, I remit the reader to the Appendix-2, section 6.

Agent, since the Agent transmits his force to the Instrument.

3.2. AN EXTENSION OF ONO'S CONCEPTUAL STRUCTURE

Contrary to Jackendoff's (1990:295, fn. 8), it could be argued that all causative verbs share the same Conceptual Structure, which must include the function (158b), since they express a change of state or a change of location of the Patient:

(158) b. $[_{Event} \text{INCH} ([_{State} \text{BE} ([x], [_{Place} \text{Y}])])]$

Obviously, this Conceptual Structure must be embedded under at least one conceptual function CAUSE (or CS^+ in Jackendoff's (1990) notation). Jackendoff (1990) proposes the Conceptual Structure of (175):

(175) $[_{Event} \text{CAUSE} ([\ \ ]_i, [_{Event} \text{INCH} ([_{State} \text{BE} ([\ \ ]_j, [_{Place / State}\ \ ])])])]$

$(cf. (162a)).$

However, this Conceptual Structure does not capture the fact that the Agent acts on the Patient through the Instrument. Basically, Jackendoff needs the Action Tier to state that there exists an action chain in which the Agent transmits its force to the Instrument, which, in turn, transmits it to the Patient. If he did not use the Action Tier, the action chain would not be clear anywhere else.

In contrast, Ono (1992) proposes that a sentence like (176) should have the Conceptual Structure of (177):

(176) John opened the door with the key

(Example taken from Ono (1992:202)).

$(177)\begin{bmatrix} \text{CAUSE ([JOHN],} \begin{bmatrix} \text{CAUSE ([KEY], [INCH ([BE ([DOOR], [OPEN])])])} \\ \text{AFF ([KEY], [DOOR])} \end{bmatrix}) \\ \text{AFF ([JOHN], [DOOR])} \end{bmatrix}$

(Schema taken from Ono (1992:202)).

In the Thematic Tier of (177), there are two CAUSE functions: the first one has an Agent as its argument and the second one has an Instrumental. This Thematic Tier states that the Agent acts on the Instrument, which ends up provoking a new state to the Patient due to the Agent's transmission of force. In Ono's (1992:202) own words, '*this semantic representation in effect describes a causal chain in which the superordinate event including an initiating cause (an agent or instigator of the event) contains a sub-event including an instrument, which, in turn, is in a causative relation resulting in the final event*'.

Ono's (1992) conceptual analysis has an immediate and unexpected consequence that Ono herself does not point out: if the Instrumental appears in the Thematic Tier and this tier captures the causal chain AG > INSTR > PAT, we can dispense with Jackendoff's Action Tier[52].

Another advantage of (177) is that the 'Instrumental Phrase' is not analysed as a conceptual modifier as in Jackendoff (1990), since it is viewed as a direct participant of the action. Therefore, (177) does not match the adjunct rule (163), which I repeat below.

(163)   If V corresponds to
$$\begin{bmatrix} ... \\ AFF^- ([X], [Y]) \end{bmatrix}$$

and NP corresponds to [Z], then [$_S$ ... [$_{VP}$ V ... [$_{PP}$ with NP] ...] ...]
may correspond to

$$\begin{bmatrix} ... \\ AFF^- ([X]^\alpha, [Y]^\beta) \\ [BY \begin{bmatrix} CS^+ ([\alpha], [AFF^- ([\gamma], [\beta])]) \\ AFF^- ([\alpha], [Z]^\gamma) \end{bmatrix}] \end{bmatrix}$$

(Taken from Jackendoff (1990:188)).

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[52] I only suggest that the Action Tier can be avoided from the analysis of 'Instrumental Phrases' because I have not weighed whether this abolition can have far-reaching consequences in analyses of other grammatical factors.

Therefore, following Ono (1992), it could be proposed that all causative verbs should have the Conceptual Structure of (178), where X stands for the Agent, Z for the Instrument and Y for the Patient.

(178) [CAUSE ([X], [CAUSE ([Z], [INCH ([BE ([Y], [STATE / LOCATION])])])])]

What I am going to suggest next is that 'Instrumental Phrases' and Instrumental subjects would have to be related to each other in Conceptual Structure.

Thus, a sentence like (179), which contains the 'Instrumental Phrase' *amb aquelles bromes* ('with those jokes'), has the Conceptual Structure of (180), since the verb *avorria* ('bore') is a causative verb that entails a causal chain.

(179) El   pallasso avorria   el   públic *amb aquelles bromes*
      the-masc-sg clown   bored-III-sg the-masc-sg public with those-fem jokes
   'The clown bored the public with those jokes'   (Catalan)

(180) [CAUSE ([*el pallasso*]$_i$, [CAUSE ([*aquelles bromes*]$_j$, [INCH ([BE
      ([*el públic*]$_k$, [AVORRIT])])])])]

If we were to represent the causal chain with Langacker's diagrams, a sentence like (179) would correspond to the action chain (181), where the Agent, the Instrument and the Patient are expressed (in Langacker's terms, *profiled*).

(181)

      S   O
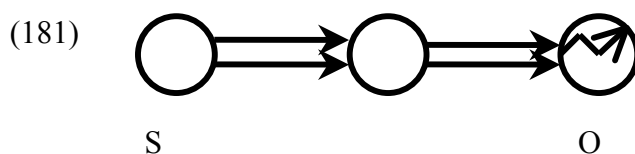
(The first circle corresponds to the Agent, the second one to the Instrument and the last one to Patient. *S* stands for subject and *O* for direct object. Schema taken from Langacker (1990:217)).

If we compare (181) with (169), which I repeat below, we will realize that the lines are thicker. In fact, they show the elements profiled.

(169)

   AG   INSTR   PAT
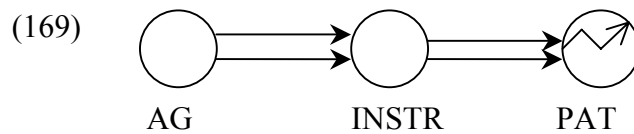
In the same way as passive sentences, the speaker can decide whether to make explicit all the members of a conceptual scene or to silence some of them. If the speaker decides to silence the Agent, I propose that we should get (182).

(182) *Aquelles bromes* avorrien el públic   (Catalan)
    those-fem jokes *bored-III-pl the-masc-pl public*
    'Those jokes bored the public'

In contrast with Ono (1992), who analyses (182) like Jackendoff does, I propose that this sentence should have the Conceptual Structure of (183).

(183) [CAUSE ([X] , [CAUSE ([*aquelles bromes*]$_j$, [INCH ([BE ([*el públic*]$_k$, [AVORRIT])])])])]

In (183), the most prominent conceptual argument does not have a specific content or a subscript that relates it to a syntactic position. In fact, when we say (182), we do not know who is the person that bores us with his jokes: it can be a clown, a journalist, a politician or a child. However, somebody provokes that feeling to us. This is why I believe that there must be an implicit Agent in Conceptual Structure. In fact, Jackendoff (1987), (1990) admits that not all conceptual constituents must correspond to a syntactic constituent, since a sentence like *The boyscouts entered* contains an unspecified Path in its Conceptual Structure.

(182) corresponds to Langacker's action chain of (184), where only two of its members have been profiled.

(184)

S   O
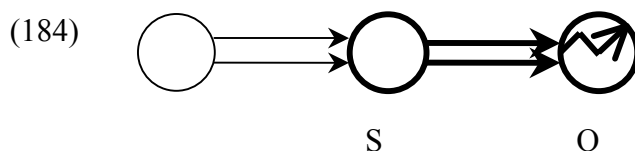
(Taken from Langacker (1990:217)).

Since the Agent is not expressed, the Instrumental appears as the subject and the Patient as the direct object[53].

In short, depending on how many participants are expressed in Conceptual Structure, we will have different syntactic structures. In the next section, I deal with the correspondence rules between the Conceptual Structures (180) and (183) and syntax.

3.3. CORRESPONDENCE RULES BETWEEN SYNTAX AND CONCEPTUAL

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[53] Langacker (1990:218) states that Fillmore's (1968) stipulation of (30), which I repeat below, can be regarded as a consequence of the different constructs that are available in a causal chain.

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

In fact, Ono (1992) states that it is unnecessary to designate an argument as the external one, since it is always the most prominent argument of Conceptual Structure. However, neither Fillmore (1968) nor Ono (1992) take into account a sentence like (i), which may correspond to the same conceptual scene than the sentence *The key opened the door*.

(i)   The door opened with a key

However, *The key opened the door* and (i) differ in the correspondence rules (compare the subscripts of (183) with the subscripts of (ii)).

(ii)   [CAUSE ([X], [CAUSE ([*a key*]$_k$, [INCH ([*the door*]$_j$, [OPENED])])])]

As pointed out by Huumo (1998:58), there is another difference between *The key opened the door* and (i): the former can refer to a fairy tale where keys move by themselves and open doors, while the latter cannot.

Ono (1992:219) states that (i) is ungrammatical because the verb *opened* is an unaccusative form that corresponds to the Conceptual Structure of (iii):

(iii)   [INCH (BE ([DOOR], [OPEN]))]   (Taken from Ono (1992:219)).

(i) would be ruled out because the Instrumental would not correspond to any semantic argument of (iii). However, as Ono (1992:220) herself points out, her analysis cannot deal with (iv), since her Conceptual Structure has no Agent that can act as the antecedent of PRO:

(iv)   The ship was sunk by a torpedo [PRO to prove a point]
                            (Example taken from Ono (1992:220)).

The modification I have suggested may account for this sentence, since I proposed that there should be an Agent in Conceptual Structure that is not realized in syntax.

As I pointed out above, although Jackendoff (1990:17) leaves open the possibility to conceive the syntactic component as derivational, he uses representational syntactic frameworks and Roman subscripts to represent correspondence rules between syntax and Conceptual Structure.

Following Jackendoff (1987), (1990), the Conceptual Structure of (180), which I repeat below, would have to be related to the syntactic framework of (185).

(180)   [CAUSE ([*el pallasso*]$_i$, [CAUSE ([*aquelles bromes*]$_j$, [INCH ([BE ([*el públic*]$_k$, [AVORRIT])])])])]

(185)   DP$_i$ [V DP$_k$ [*with* DP$_j$]]

Obvioulsy, to carry out this correspondence, we need an adjunct rule of the sort illustrated in (186).

(186)   If V corresponds to
        [CAUSE ([X]$_i$, [CAUSE ([Z]$_j$, [INCH ([BE ([Y]$_k$, [$_{State}$])])])])],
        it must correspond to [$_S$ ... [$_{VP}$ V ... [$_{PP}$ *with* NP$_j$] ...]...]

However, (186) is different from Jackendoff's correspondence rules, since it includes the subscripts. If the first conceptual argument (*X*) does not have the subscript *i*, we will need another correspondence rule to account for sentences with Instrumental subjects.

Concerning Ono's (1992) approach, she applies Larson's (1988) syntactic analysis of double-object constructions to Instrumentals and she states that Instrumental NPs appear in a higher position than direct objects (see (187)).

(187)

```
            VP
            |
            V'
          /    \
         V      VP
         |     /  \
         e   NP    V'
            / \   /  \
           △  V    NP
        a key |   / \
             open △
                the door
```
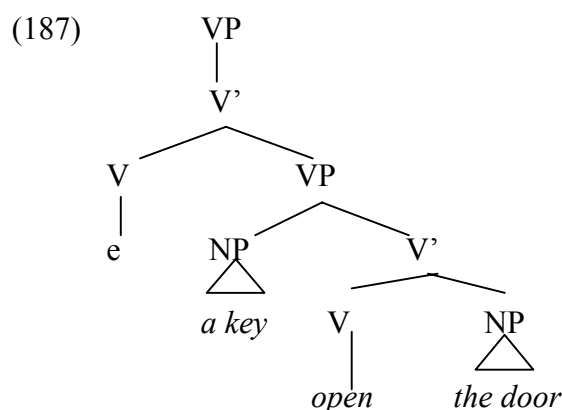
(This schema stands for a sentence like *John opened the door with a key*. Taken from Ono (1992:209)).

In order to account for the correspondence between Conceptual Structure and syntax, she assumes Larson's mapping principle of (188):

(188)   If a verb a determines θ-roles $\theta_1, \theta_2, ..., \theta_n$, then the lowest role in the Thematic Hierarchy is assigned to the lowest argument in constituent structure, the lowest role to the next lowest argument, and so on.

(Larson (1988:382). Taken from Ono (1992:207)).

Therefore, if Instrument occupies a lower position than Agent in Conceptual Structure, it will have to occupy a lower position than Agent in syntax. However, Larson's mapping principle of (188) treats thematic roles as primitive, whereas Jackendoff treats them as structural configurations of Conceptual Structure. Moreover, Larson's mapping principle of (188) entails that there is a thematic role 'Instrument', while Jackendoff (1990) explicitly denies the existence of this thematic role (see section 2.1).

At first sight, I could use Larson's mapping principle to relate the syntactic structure proposed in Chapter Two to the Conceptual Structure proposed above. However, two main problems arise. First, in Chapter Two, I assumed following Chomsky (1995), (1998) that, to start a derivation, an array of lexical items is selected from the lexicon. In contrast, Jackendoff refuses the existence of the lexicon as a component of the grammar. Second, Jackendoff (1990) proposes that any kind of

binding or coreference should not be syntactic, but conceptual. Therefore, he would deny that there is a PRO in syntax. Therefore, the Chomskyan analysis I proposed in Chapter Two is not compatible with the Jackendovian conceptual analysis or Ono's conceptual analysis.

To sum up, in this section I have proposed an extension of Ono's (1992) Conceptual Structure that has the advantage that the same Conceptual Structure accounts for 'Instrumental Phrases' and Instrumental subjects. However, it has the drawback that two adjuncts rules must be postulated. Concerning Ono's (1992) analysis, she needs Larson's (1988) mapping principle to account for the correspondence between syntax and Conceptual Structure.

4. $^{?/*}$THE KEY *OPENED THE DOOR* WITH A SCREWDRIVER VS. THE CAR *BROKE THE WINDOW* WITH ITS FENDER

Before reaching the conclusions of this appendix, I am going to refer to some sentences that appeared at the end of Chapter Two.

(116) $^{?/*}$*The key* opened the door *with a screwdriver*

(117)   *The car* broke the window *with its fender*

(Example taken from Fillmore (1968:23)).

To account for the grammatical status of (116) and (117), I raise the following claims:

1)   Instruments that designate vehicles can be used metaphorically to designate an Agent,

2)   when an Instrument is used metaphorically, it can license an Instrumental PP as long as the PP designates an inalienable part of the higher conceptual constituent.

Once I have dealt with these two aspects, which are the subject matter of the next two sections, I will be able to suggest an explanation of why (116) is anomalous and (117) is perfect.

4.1. VEHICLES

The subject of (117) (*the car*) designates a vehicle, and not all authors treat vehicles alike. For instance, Quirk et al. (1988:743) treat them as Instruments, while Demonte (1994:543, fn. 15) treats them as Agents. Relying on the fact that vehicles always presuppose the existence of an Agent that manipulates them and on the fact that they can appear as a PP and as a subject, they can be treated as Instruments. However, when looking at examples like (189), one realizes that they do not behave like other Instrumental subjects.

(189)   a.   *The key is opening the back door
        b.   *The aeroplanes* are attacking the city (*with anti-tank missiles*)
        c. $^{?/*}$*The car* is breaking the window (*with its fender*)

An Instrumental subject that does not designate a vehicle cannot appear with a progressive tense. In contrast, an Instrumental subject that designates a vehicle can appear with a progressive tense and it is even possible to add an 'Instrumental Phrase' (see (189b) and (189c)).

Basing on these facts, I defend that the subject that designates a vehicle is an Instrumental, which is used metaphorically to designate an Agent. It is precisely when it is used metaphorically as an Agent that it can coappear with an 'Instrumental Phrase'. In other words, in (117) we understand *X with the car's fender,* where X corresponds to an Agent. As we do not know his entity, we use part of the 'Instrumental Phrase' to designate him. This reanalysis of the vehicle Instrumentals accounts for their dual syntactic behaviour. On the one hand, they behave as Agents because, as illustrated in (189b), they can appear with a progressive tense. On the other hand, they behave as Instruments because they cannot be co-ordinated with an Agent:

(190) a.   *Peter and *the key* opened the door

        b.   *John and *the car* broke the window

Differently from Agents, Instrumental vehicles used metaphorically cannot license any kind of Instrumental PP (see (191)), unless they refer to fairy tales or to cartoons.

(191) a. $^{?/*}$The car broke the window *with a hammer*$_{\text{INSTRUMENTAL}}$

        b. $^{?/*}$The car broke the window *with a fender*$_{\text{INSTRUMENTAL}}$

                          (Example taken from Fillmore (1968:23)).

I maintain that, when a vehicle Instrument is used metaphorically as an Agent, it can coappear with an Instrument that expresses inalienable possession, notion that is the central theme of the next section.

4.2. INALIENABLE POSSESSION

As suggested by Fillmore (1968:22-23), the clue of (117)'s grammaticality is the word *its*, since the most embedded Instrumental expresses an inalienable possession of the Instrumental subject. In fact, as seen in (191b), (117) becomes anomalous if the possessive *its* is deleted[54]. Moreover, (117) can be paraphrased by (192), where the possessive relation is expressed clearer:

(192)   The car's fender broke the window

                          (Example taken from Fillmore (1968:23)).

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[54] Obviously, a sentence like *The car broke the window with a fender* is perfect if we refer to a fairy tale where cars are animate entities that can act on inanimate ones. Exactly the same happens with a sentence like *The key opened the door with a screwdriver,* which is perfectly grammatical if it refers to cartoons or any other imaginable world where keys can act on other inanimate entities. In these readings, *the car* and *the key* would be Agents because they would be the ones that would transmit energy to the Patient. However, this is not the reading I refer to in this section. In fact, if we understand that *the key* is an inanimate object, it will not be able to act on another inanimate object, which makes a sentence like (116) look anomalous.

In Fillmore's own words, '*either the entire instrument phrase may appear as the subject (as in (192))*[55]*, or the 'possessor' alone may be made the subject, the remainder of the instrument phrase appearing with the preposition* with (*as in (117)*). *The second option requires that a 'trace' be left behind in the instrument phrase, in the form of the appropriate possessive pronoun*'[56].

As I have just postulated, the subject of (117) (*the car*) is an Instrumental DP that is used metaphorically to designate the person who drives the vehicle. Since it is used metaphorically as an Agent, it can coappear with an 'Instrumental Phrase'. However, this 'Instrumental Phrase' must keep a relation of inalienable possession with the subject. In other words, the upper Instrumental must establish the dominating framework that includes the lower 'Instrumental Phrase' (see in this sense Huumo (1998:68)).

As far as (116) (*$^{?/*}$The key opened the door with a screwdriver*) is concerned, syntactically speaking, it is identical to (117) (*The car broke the window with its fender*), as I pointed out in Chapter Two. The fact that (116) is anomalous while (117) is perfect is a conceptual fact, not a syntactic one. (116) is odd because *the key* cannot designate an Agent as easily as *the car*. My proposal is that only those Instrumentals that are related to an Agent through a relation of inalienable possession can be used metaphorically[57]. As a key can not be understood as an inalienable part of a human being, it can not be used metaphorically. If it cannot be used metaphorically, it cannot be reanalysed as an Agent. If it is not reanalysed as an Agent, the conceptual position

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[55] I have changed Fillmore's numeration for my own.

[56] Catalan shows a slightly different pattern than English because, as (i) illustrates, the 'Instrumental Phrase' that expresses inalienable possession has to appear without a possessive determiner.

> (i) a. El cotxe va abonyegar la porta
> *the-masc-sg car   Past-aux-III-sg dent   the-fem-sg door*
> del garatge amb el paraxocs (Catalan)
> *of+the-masc-sg garage   with   the-masc-sg bumper*
> 'The car dented the garage's door with its bumper'
> b. $^{?/*}$El cotxe va abonyegar la porta del garatge amb
> el *seu* paraxocs
> *the-masc-sg his-sg bumper*
> 'The car dented the garage's door with its bumper'

[57] As Gemma Rigau pointed out to me, the possibility to create a metaphor is a question of grade.

of Instrumentals is already occupied and no other Instrumental can be licensed. Therefore, I suggest that there can be no more than one Instrument in Conceptual Structure, unless one of them is reanalysed as an Agent.

If I am on the right track when stating that there can be no more than one Instrument in Conceptual Structure, I must be able to deal with sentence (193):

(193)   John opened the door *with a key and a screwdriver*

In (193), there are two Instruments that, differently from (116), are co-ordinated: *a key* and *a screwdriver*. Since they are not related through possession, we would expect an ungrammatical sentence. However, (193), which is ambiguous, is perfectly grammatical. In one of its readings, John opened the door using two tools at the same time. In this case, *a key* and *a screwdriver* would appear in the same position in Conceptual Structure (see (194)).

(194)   [CAUSE ([*John*], [CAUSE ([$\left\{ \begin{array}{l} (a\ key) \\ (a\ screwdriver) \end{array} \right\}$], [INCH

([BE ([*the door*], [OPENED])])])])][58]

Regarding the second reading of (193), John opened the door with a key some days, while he opened it with a screwdriver other days. In this case, each instrument appears in a different Conceptual Structure and (193) would be the result of co-ordinating two parallel Conceptual Structures.

Before finishing this section dedicated to inalienable possession, I will briefly refer to sentences like (195).

(195)   a.   En   Toni em frega l' esquena *amb els   peus*
                 the-masc-sg Toni me rubs the back   with the-masc-pl feet

---

[58] I have not co-ordinated *a key* and *a screwdriver* because the speaker decides which Instrument he will express first.

       'Toni rubs my back with his feet'   (Catalan)

b.   *Els   peus* em freguen l' esquena

     the-masc-sg feet   me rub-III-pl the back

     'My feet rub my back'

c.   *Els   seus peus* em freguen l' esquena

     the-masc-pl his-pl feet   me rub-III-pl the back

     'His feet rub my back'

d.   *Els peus d'en Toni* em freguen l'esquena

     'Toni's feet rub my back'

In (195a), there is an Agent (*en Toni*) and an 'Instrumental Phrase' (*els peus*), which designates an inalienable part of the Agent. Therefore, this example illustrates that not only do Instrumentals that designate a vehicle appear with a PP of inalienable possession, but also Agents. As I pointed out in footnote 56, the 'Instrumental Phrase' of (195) does not have any possessive in Catalan. However, when this Instrumental appears as the subject of the sentence, it must have a possessive determiner (see (195c)) or a complement indicating possession (see (195d)). In (195b), although there is no explicit element that indicates inalienable possession, it is implicit as the English translation of the sentence shows, where the possessive pronoun *my* appears[59].

Authors like Quirk et al. (1988) give an example of an Instrumental subject that indicates inalienable possession without commenting on any particular aspect:

(196) *His left hand* caught the ball

            (Example taken from Quirk et al. (1988:699)).

---

[59] As Anna Bartra pointed out to me, if the DP complement of *amb* ('with') indicates alienable possession, it accepts a possessive determiner with no problem in Catalan. Compare, for instance, (i) with (ii):

(i)   En   Jaume va   obrir l'   ampolla de
     the-masc-sg Jaume Past-aux-III-sg open the-fem-sg bottle   of
     cava   amb les   (*seves) dents   (Catalan)
     sparkling wine with the-fem-sg his-fem-pl teeth
     'Jaume opened the bottle of sparkling wine with his (own) teeth'

(ii)   En Jaume va obrir l'ampolla de cava amb les (seves) estisores
     'Jaume opened the bottle of sparkling wine with his scissors'

However, other authors like Rigau (in press: §14.3.2.1.) state that an Instrumental indicating inalienable possession cannot appear in the subject position easily.

(197) $^?$La   seva mà tapava   el   forat   (Catalan)
       the-fem-sg his-fem hand covered-III-sg the-masc-sg hole
       'His hand covered the hole'

                              (Example taken from Rigau (in press: §14.3.2.1.)).

In my opinion, (195) can suggest an explanation to this kind of sentences. Examples (195b) through (195d) have a slightly different meaning that (195a) (*En Toni em frega l'esquena amb els peus* 'Toni rubs my back with his feet'). In (195a), the Agent touches the speaker with his feet volitionally and intentionally. However, the preferred reading of the rest of examples of (195) is that somebody touches the speaker unintentionally[60].

I suggest that this change of meaning is due to the fact that a part of the human body cannot act on its own. An arm, for instance, cannot decide to do whatever it wants without taking into account what mind dictates. For this reason, it is easier to have an Instrumental subject that designates an inalienable part of a body with verbs that allow a non-intentional reading. According to this, a sentence like (197) is absolutely grammatical if it refers to a casual action. However, it is strange if it refers to an intentional fact.

However, an Instrumental subject that designates an inalienable part of the human body can describe a volitional and intentional action as seen in (196) (*His left hand caught the ball*). Nevertheless, this sort of sentences is typical of newspapers. For instance, imagine that yesterday there was the baseball's final and, when it was some minutes to the end of the match, the score was tied. Luckily for one of the teams, one of the players, who usually caught the ball with his right hand, caught the ball with his left hand, which was decisive for the final score. In this case, a headline of the newspapers of the following day could be (196).

Syntactically and conceptually speaking, the sentences in (195), (196) and (197) are equivalent to the ones that I treated in Chapter Two. The fact that the Instrumental designates an inalienable part of the body is related to world knowledge, which has indirect consequences in grammar.

In this Appendix, I have described Jackendoff's (1987), (1990) analyses of 'Instrumental Phrases' and Instrumental subjects and I have highlighted their problems. Afterwards, I have suggested another conceptual analysis of Instrumentals, which was based on Ono (1992). In fact, Ono's analysis has advantages and drawbacks that Jackendoff's one does not have. As I pointed out in section 3.3, Ono's (1992) analysis has problems with correspondence rules and the analysis I proposed has the inconvenience that two correspondence rules must be postulated. However, Ono's (1992) analysis and the one I proposed have the advantage that they reflect the action chain. Second, my analysis has the advantage that it relates the 'Instrumental Phrase' to the Instrumental subject in Conceptual Structure, since any grammar that sets up essentially different Conceptual Structures for an 'Instrumental Phrase' and an Instrumental subject cannot account for the semantic similarities that lie behind them. Nevertheless, it has the disadvantage that it states that a sentence like *The strong wind broke the window* has two cause functions, which would oblige us to postulate that the first one is occupied by *the strong wind* and the second one by an unspecified variable that designates inalienable possession.

Ono's (1992) analysis has the advantage that she differentiates between an 'Instrumental Phrase', which is in the Thematic Tier, and a 'Means Phrase', which has the following Conceptual representation:

(198) $\begin{bmatrix} \text{CAUSE ([JOHN], [GO ([PASTA], [TO [IN [MOUTH OF} \\ \text{[JOHN]]]])]) [BY [USE ([JOHN], [FORK])]]} \end{bmatrix}$
      (Ono postulates the function *use* to relate the Actor and the

---

Instrument in the modifier clause. Taken from Ono
(1992:203).)

However, as Jaume Mateu pointed out to me, (198) does not stress what characteristics an 'Instrumental Phrase' and a 'Means Phrase' have in common. In contrast, since Jackendoff (1987), (1990) does not differentiate them, he does not have this problem.

Finally, all the Conceptual analysis I have dealt with have a common problem, since neither of them pay attention to the preposition *with* nor to the semantic notion *central coincidence.* As a consequence, they cannot explain why there is this preposition and not another one.

All these problems lead me to defend a syntactic analysis of 'Instrumental Phrases' and Instrumental subjects, since the available conceptual frameworks cannot account for all the relevant facts. However, a conceptual analysis is still needed.

APPENDIX - 2

_____

OTHER USES OF THE PREPOSITION *WITH* / *AMB* (CATALAN) / *CON* (SPANISH)

Along this work, I have basically made reference to three phrases that are introduced by the preposition *with* / *amb* (Catalan) / *con* (Spanish): the 'Instrumental Phrase', the 'Comitative Phrase' and the 'Means Phrase'. However, it is evident that this preposition has a wide variety of other uses. In this appendix, I will describe quite schematically some of these uses while emphasising the differences that they have in respect of the 'Instrumental Phrase'. In some cases, I will suggest how my analysis could be applied to those instances.

1. THE CAUSAL USE

Apart from an Instrumental, a Means and a Comitative use, another use of the preposition *with* is that of (199):

(199) a.   Les   flors   es van   pansir *amb la*   *calor*
              the-fem-pl flowers pr Past-aux-III-pl wither   with the-fem-sg heat
              'Flowers get withered with the heat'   (Catalan)
                        (Example taken from Gràcia (1989b:162)).

      b.   Florida's orange crop got ruined *with the frost*

These PPs cannot be confused with an 'Instrumental Phrase' because they can appear with inchoative verbs, as seen in (199), and they can be paraphrased with a causal connector (see (200)), while Instrumentals cannot.

(200) a.   Les   flors   es van   pansir *a causa de la*
              the-fem-pl flowers pr Past-aux-III-pl wither   because of the-fem-sg

              calor   (Catalan)
              heat
              'Flowers get withered because of the heat'
                        (Example taken from Gràcia (1989b:163)).

      b.   Florida's orange crop got ruined *because of the frost*

As I pointed out in footnote 38, similarly to Instrumentals, the PPs of (199) can also appear in the subject position:

(201) a. *La calor* va pansir les flors   (Catalan)

(Example taken from Gràcia (1989b:162)).

   b. *The frost* ruined Florida's orange crop

(Example taken from Nilsen (1973:23)).

Inanimate subjects as those in (201) have received different analyses and labels: some authors propose that they should receive the semantic role *Force* (see the references that Nilsen (1973:23) and Gràcia (1989b:151) quote). Quirk et al. (1988:743) call them *External Causer.* Gràcia (1989b:163) calls them *Cause* because they are clearly related to the PPs in (199) and in (200). Other authors treat them as *Agents*. Demonte (1994:543) considers primary Agents to be human beings, phenomena of the nature like those in (201), and mechanic instruments with motor autonomy. I have talked about Vehicles in Appendix-1, section 4.1. Langacker (1990:237) states that forces like those in (199) and (201) are neither agents nor instruments strictly speaking. In my opinion, what differentiates Gràcia's (1989b) and Demonte's (1994) works is just a terminological distinction.

There is a final difference between Cause and Instrumental adjuncts. As noted by Rigau (in press: §14.3.2.), when the Cause adjunct appears as the subject, no element disappears from the sentence, whereas when the Instrumental adjunct appears as the subject, the Agent disappears:

(202) a. I$_{AGENT}$ darkened my hair *with that liquid*$_{INSTRUMENTAL}$

   b. *That liquid* darkened my hair

(203) a. The land cracked *with the drought*$_{CAUSE}$

   b. *The drought* cracked the land

Gràcia (1989a), (1989b) postulates that, apart from these cases I have just mentioned, there are other DPs that also receive the thematic role *Cause:*

(204) a.   *El   pes excessiu* va   enfonsar la   nau

                the-masc-sg weight excessive Past-aux-III-sg sink   the-fem-sg ship

                'The excessive weight sank the ship'   (Catalan)

        b.   La   nau s' ha enfonsat *pel   pes   excessiu*

                the-fem-sg ship pr has sunk   by+the-masc-sg weight excessive

                'The ship has sunk because of the excessive weight'

                                 (Examples taken from Gràcia (1989b:155)).

(205) a.   En   Joan$_{AGENT}$ va   provocar la   divisió

                the-masc-sg Joan   Past-aux-III-sg provoke   the-fem-sg division

                entre   ells   (Catalan)

                between them

                'Joan provoked the division between them'

        b.   *La   decisió d' en   Joan*$_{CAUSE}$ va   provocar

                the-fem-sg decision of the-masc-sg Joan   Past-aux-III-sg provoke

                la   divisió entre   ells

                the-fem-sg division between them

                'Joan's decision provoked the division between them'

                            (Examples taken from Gràcia (1989b:158)).

        c.   En Joan va provocar la divisió entre ells *amb aquella*

                decisió$_{CAUSE}$

        d.   En Joan va provocar la divisió entre ells *a causa d'aquella*

                decisió$_{CAUSE}$

Following the analysis that I proposed for Instrumentals, I could argue that the subject of (205a) and (205b) is base-generated in the subject position and that it is distinguished from other Originators in Conceptual Structure. Regarding (205c), I would suggest that the PP *amb aquella decisió* has the structure of (206), which adjoins to the VP in a similar way to the 'Instrumental Phrase'.

(206)

```
              PP
            /    \
         PRO      P'
                /    \
               P      DP
              amb    aquella decisió
```
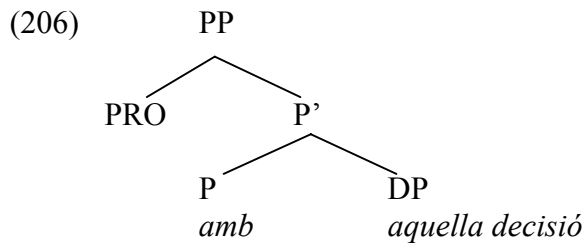
The DP subject *en Joan* ('John') will control the PRO, which will make the Causal PP end up being related to the DP *en Joan* ('John') in an indirect way.

However, in some component of the grammar it should be stated what kind of relation there is between *amb* ('with') and *a causa de* ('because of') (see (205d)) or why in certain sentences *amb* can be paraphrased by *a causa de*. I will not examine this issue here.

2. THE MANNER USE

A) The Manner PP of (207) is in complementary distribution with a Manner adverb (compare (207) with (208)).

(207) El van convèncer *amb molta facilitat* (Catalan)
      him Past-aux-III-pl convince with a lot of-fem-sg facility
      'They convinced him easily'

(208) El van convèncer *fàcilment* (Catalan)
      him Past-aux-III-pl convince easily
      'They convinced him easily'

An 'Instrumental Phrase' is not usually in complementary distribution with an adverb[61]:

---

[61] It could be argued that this statement is in contradiction with example (36f) (*She examined the specimen microscopically*). It must be kept in mind that the adverb of (36f) is not a real Instrumental: it stands for a Means adjunct because the verb *examine* is not a causative verb.

(209) a.   *Els   pagesos cullen   les   pomes
             the-masc-pl peasants pick up-III-pl the-fem-pl apples

             estisoradament   (Catalan)
             scissorly
             '*The peasants pick up the apples scissorly'
      b.   Els pagesos cullen les pomes *mecànicament*   (Catalan)
             'The peasants pick up the apples mechanically'

(209a) is ungrammatical because there is no Catalan adjective *estisorada* from which the adverb *estisoradament* can be derived. However, the adverbial suffix *-ment* can be affixed to the adjective *mecànica* and give the adverbial *mecànicament* ('mechanically') (see (209b)). However, (209b) is ambiguous because it can mean that peasants pick up the apples in a mechanical way (where *mecànicament* ('mechanically') would be interpreted as a Manner adverbial) or that peasants pick up the apples with mechanical tools (in this sense, *mecànicament* would be an Instrumental adverbial).

However, while we can always co-ordinate a Manner PP with a Manner adverbial, it is rare to co-ordinate an Instrumental PP with an Instrumental adverbial (see (210) and (211) respectively).

(210) El   van   convèncer *ràpidament i   amb molta   facilitat*
      him Past-aux-III-pl convince   quickly   and with a lot of-fem-sg facility
      'They convinced him quickly and easily'   (Catalan)

(211) ^{?/}*Els   pagesos cullen les   pomes *amb un   tractor*
      the-masc-pl peasants pick up the-fem-pl apples   with a-masc-sg tractor

      especial i   mecànicament   (Catalan)
      especial   and mechanically
      '^{?/}*The peasants pick up the apples with a especial tractor and mechanically'

3. THE MATERIAL USE

I use this label to refer to the grammatical phenomenon known as *locative alternation,* phenomenon that has been largely studied in the literature. It is not my intention to give an exhaustive survey of the relevant literature because this would be too ambitious for present purposes. To exemplify the vast amount of works that have treated this phenomenon I will only enumerate those I have encountered along my research: Baker (1997:86-97), Demonte (1991:33;64-68), Hoekstra & Mulder (1990:14-18), Jackendoff (1990:171-174), Levin & Rappaport Hovav (1992:145-146), Levin & Rappaport Hovav (1998:260-263), Mateu (1997:108-123), (1998:9), (1999:11-13), Pesetsky (1995: 146-149), Rappaport et al. (1993) and Speas (1990:84-86)).

I am going to illustrate this phenomenon in English (see (212)) and in Catalan (see (213), which is the Catalan version of (212)).

(212) a.   Bill loaded hay on(to) the truck   (*locative variant)*
     b.   Bill loaded the truck with hay   (with-*variant*)

(213) a.   En Pere carrega palla al camió   (Catalan)
     b.   En Pere carrega el camió amb palla
     c.   En   Pere carrega el   camió de palla
            the-masc-sg Pere loads   the-masc-sg truck   of hay
            'Pere loads the truck with hay'

In (212a) and (213a) we have an example of the locative variant: it has been taken as the basic structure because it has exactly the same linking regularities as those predicates which express a location and do not shift their arguments (for instance, *put + Theme + Goal*). In (212b) and (213b), there is an example of the *with*-variant. Some

authors (Mariotti (1981:254) and Rigau (in press: §14.3.2.2.)) call it Means adjunct[62]; others (Quirk et al. (1988:684)) say that the preposition *with* has a pervasive meaning[63].

Before proving that Material adjuncts are not 'Instrumental Phrases', it is necessary to clarify a question that has been obviated in the literature. As far as I can see, (212a) is a synonym of (212b): in both sentences, we say that the truck has been loaded (completely or not) with a material called hay. There can still be more hay to be loaded. However, most authors that deal with this construction state that the locative variant is not a complete synonym of the *with*-variant because the first one means that all the hay is loaded while the second one means that all the truck is loaded. Regrettably, those authors do not deal with the same sentences that I am dealing with, since they add a definite article to the Material NP in one of the versions but not in the other. If a definite article is added, meaning changes!

(214) a. John loaded *the* hay onto the truck

       b. John loaded the truck with *the* hay

---

[62] In fact, Rigau (in press: §14.3.2.2.) calls this kind of adjunct Means or Material adjunct. Contrary to those authors that call it Means, I suggest not to apply the label 'Means' to cases like (212b) and (213b) because then we would have to stipulate, first, which Means adjuncts admit the locative variant and which do not, and second, which Means adjuncts in Catalan and Spanish admit an *of*-variant and which do not. The contrast between (i) and (ii) briefly illustrates my words.

(i) Elmer examined the inscription with the magnifying glass
                                    (Example taken from Marantz (1984:247)).

If, as Mariotti (1981) and Rigau (in press) propose, those cases in (212b) and (213b) are Means adjuncts like (i), they should show the same syntactic behaviour. However, (i) cannot appear in a locative variant (see (iia)) and in Catalan it cannot appear with the preposition *de* ('of') (see (iib)).

(ii) a. #Elmer examined the magnifying glass on the inscription
      b. #En   Lluís va   examinar la   inscripció
          the-masc-sg Lluís Past-aux-III-sg examine the-fem-sg inscription

          de la   lupa   (Catalan)
          of the-fem-sg magnifying glass
          'Lluís examined the inscription of the magnifying glass'

For these reasons, I suggest they deserve to be treated as another kind of circumstantial adjunct. I adopt Nilsen's (1973:55) label *Material*.

[63] Quirk et al. (1988:710) use the label *Material* to refer to cases as (i):

(i) This cake is *made with* lots of eggs
                                    (Example taken from Quirk et al. (1988:710)).

In (214a), the most preferred interpretation is that all the hay has been loaded. In contrast, in (214b) the preferred interpretation is that all the truck is loaded. Some authors (for example, Pesetsky (1995:149)) even mix the examples in (212) and those in (214) and deal with the following alternation:

(215)   a.   John loaded **the** hay onto the truck
        b.   John loaded the truck with *hay*

Regarding the alternation in (215), where each variant has a different meaning, Baker (1997) suggests that they represent different conceptual scenes. In fact, Baker (1997:88) quotes Dowty (1991), who states that '*verbs which are normally accomplishments aspectually often become activities when their theme argument is a bare plural or mass noun. Now, in locative alternation constructions, the argument that is expressed as the direct object determines the aspectual quality of the whole clause*'.

There are several arguments to show that the *with*-variant is not an 'Instrumental Phrase':
A) Instrumental PPs cannot be introduced by the preposition *de* ('of') either in Catalan or in Spanish[64], while Material PPs can (compare (213c) (*En Pere carrega el camió de palla* 'Peter loads the truck with hay') with (216)):

(216)   *Pedro abrió la puerta *de la llave nueva*INSTRUMENTAL   (Spanish)

B) An Instrumental PP cannot shift to the direct object position as a Material PP can (compare (213a) (*En Pere carrega palla al camió* 'Peter loads hay onto the truck') with (217)):

(217)   *Pedro abrió la llave nueva en la puerta   (Spanish)

---

[64] As I said in Chapter One, however, French admits an 'Instrumental Phrase' introduced by the preposition *du*. It would be interesting to study what happens with the locative alternation in these languages. I leave this issue here because it goes far beyond the aims of my study.

It could be argued that sentences like those in (218) are counterexamples to my hypothesis:

(218) a.   Peter used *that knife* to cut the bread

b.   En   Joan fa servir *la   magalla* per cavar

the-masc-sg Joan does use   the-fem-sg hoe   to dig

'Joan uses a hoe to dig'   (Catalan)

As I stated in Chapter One, although the DPs that work as direct objects designate an Instrumental, they are not 'Instrumental Phrases' in the sense in which this term has been used along this work (they are not optional complements, but arguments). Moreover, the Instrumental DPs of (218) cannot appear with the same verb as a PP (see (219)):

(219) a.   #Peter used to cut the bread *with that knife*[65]

b.   *En Joan fa servir per cavar *amb la magalla*   (Catalan)

Moreover, as Nilsen (1973:17-23) points out, the verb *use* has not the same semantic restrictions as the preposition *with*, since *use* always entails that the entity designated by the subject acts intentionally, whereas *with* does not entail so. In fact, when we say *Peter broke the vase with a ball,* we can always add *accidentally.*

C) The *with* adjunct and the *de* ('of') adjunct of (212)-(213) are not 'Instrumental Phrases' because an Instrumental PP can always be added. (This point is also noted by Honda (1994:221).)

(220)   Bill loaded the truck with hay *with a shovel*

(221)   En Pere carrega el camió de palla *amb una pala*[66]

---

[65] This sentence is grammatical if we understand *used to* as a modal verb used to talk about past habits. If so, this sentence is not different from the ones where an 'Instrumental Phrase' appears.

[66] (221) is the Catalan version of (220). It has to be noted that the preposition *with* covers some uses that the Romance preposition *de* ('of') has. For instance, in the next section, it will be

If the two PPs were semantic equivalents, these sentences would be ungrammatical unless the PPs were co-ordinated.

As can be seen in (222), we cannot change the order of the PPs because then the sentence turns out to be anomalous:

(222) $^{?/*}$En Pere carrega el camió *amb una pala de palla*   (Catalan)

The syntactic analysis that I proposed for 'Instrumental Phrases' may account for the Material use of the preposition *with*. For instance, the Material PP may correspond to the syntactic object of (223), which is parallel to the syntactic structure I proposed for the 'Instrumental Phrase'.

(223)

```
              PP
            /    \
         PRO      P'
                 /  \
                P    NP
              with   hay
```
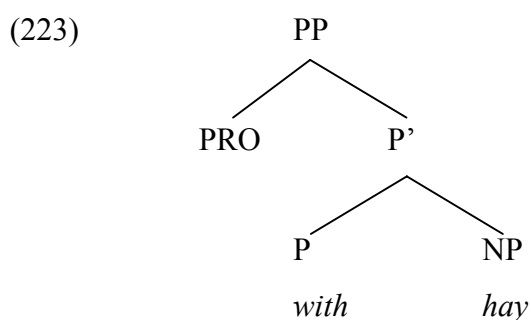
Keeping in mind that Honda (1994:223) points out that *with* establishes a relation between two entities that can be object-orientated or subject-orientated, it could be argued that the adjunct of (223) may be related to the direct object of the verb *load /*

---

noted that some Romance nominal modifiers can be introduced by both *de* ('of') and *amb* ('with'). In contrast, English nominal modifiers are introduced by *with.* Therefore, it is not strange that in English we can have two PPs introduced by the preposition *with* (see (220)), whereas it is at least marked to have it in a Romance language (see (i), which is the Catalan translation of (220)).

(i) $^{?}$En Pere va carregar el camió amb palla amb una pala (Catalan)

If we accept (i), it is because we relate it to (221) (*En Pere carrega el camió de palla amb una pala*). In my opinion, when the NP of the Material *with* has a determiner, it does not accept so easily an 'Instrumental Phrase' (see the contrast between (ii) and (iii)).

(ii)   John loaded the truck *with hay*$_{MATERIAL}$ *with a shovel*$_{INSTRUMENTAL}$
(iii) $^{?}$John loaded the truck *with **the** hay*$_{MATERIAL}$ *with a shovel*$_{INSTRUMENTAL}$

Unluckily, I have no explanation for this contrast.

carregar. Apart from this adjunct, there can still be another adjunct because there can be an 'Instrumental Phrase' (see (220)). As I proposed in Chapter Two, the PRO of the 'Instrumental Phrase' will be controlled by the DP Agent. In Honda's (1994) terms, it will be subject-orientated.

4. NOMINAL MODIFIER

There are non-deverbal nouns that can have as a complement an NP introduced by the preposition *with:*

(224) a.   Volem pa *amb oli*   (Popular Catalan song)
               want-I-pl bread with oil
               'We want bread with some oil on'

      b.   La   Magdalena menja pa   *amb tomàquet amb pernil* i
               the-fem-sg Magdalena eats   bread with tomato   with ham   and

               en   Pere, mongetes *amb botifarra*   (Catalan)
               the-masc-sg Pere beans   with   sausage
               'Magdalena eats bread with tomato with ham and Pere, beans with sausage'

Not all Nominal Modifiers introduced by the preposition *with* / *amb* (Catalan) / *con* (Spanish) behave alike. As noted by Roca (1997:363-364), some Nominal Modifiers can be paraphrased by a PP introduced by the preposition *de* ('of') (see (225b)) and by a relative clause (see (225c)).

(225) a.   La   chica *con el   pelo rojo*   (Spanish)
               the-fem-sg girl   with the-masc-sg hair red
               'The girl with red hair'

      b.   La   chica *de pelo rojo*
               the-fem-sg girl   of hair red
               'The girl with red hair'

      c.   La   chica *que tiene el   pelo rojo*
               the-fem-sg girl   that has   the-masc-sg hair red

'The girl that has red hair'

(Examples taken from Roca (1997:363-364)).

The main difference between the examples of (224) and the examples of (225) is that in (224), the noun with the modifier introduced by *with* works as a lexicalised item, whereas in (225), the noun and the modifier are not lexicalised.

The modifiers in (224) and (225) differ from the 'Instrumental Phrases' in that they depend on a noun, whereas 'Instrumental Phrases' depend on a verb[67].

5. THE SPATIAL USE

As I pointed out in Chapter One, section 3.1., and more extensively in Chapter Two, section 2.2.2., the preposition *with* / *amb* (Catalan) / *con* (Spanish) is a stative preposition that indicates central coincidence (Hale & Keyser (1993:98), (1997:15) and Rigau (1997:397, fn. 2)). Therefore, it is not surprising that it can head a PP that indicates *location,* as seen in (226).

(226) a.   I left the keys *with my wallet*

(Example taken from Quirk et al. (1988:679)).

b.   El   joier va   posar el   robí *amb*
the-masc-sg jeweller Past-aux-III-sg put   the-masc-sg ruby with

la   perla   (Catalan)
the-fem-sg pearl
'The jeweller put the ruby with the pearl'

This use of the preposition *with* cannot be confused with the Instrumental use because the former can be paraphrased with an expression that designates a place (for example, *in the same place as, al costat de* 'next to' (see (227)), whereas the latter can never be paraphrased with that expression, as seen in (228).

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[67] For an analysis of Nominal Modifiers in Kayne's (1994) framework, I remit the reader to Roca (1997). In Chapter Two, section 2.1.2., I referred to Nominal Modifiers.

(227)   a.   I left the keys *in the same place as* my wallet

        b.   El joier va posar el robí *al costat de* la perla   (Catalan)

(228)   # I broke the glass *in the same place as* a hammer

                        (cf. I broke the glass *with a hammer*INSTRUMENTAL).

Although (228) is grammatical, *a hammer* is not understood as an Instrument, but as a Theme. (228) amounts to (229):

(229)   I broke the glass *in the same place* where I broke a hammer

Moreover, an 'Instrumental Phrase' can always be added to sentences like those in (226) (see (230)).

(230)   El   joier   va   posar el   robí *amb la*
        the-masc-sg jeweller Past-aux-III-sg put   the-masc-sg ruby with   the-fem-sg

        *perla*LOCATIVE *amb unes   pinces*INSTRUMENTAL   (Catalan)
        pearl   with a-fem-pl tweezers
        'The jeweller put the ruby with the pearl with a pair of tweezers'

In short, if the two PPs introduced by the preposition *with* in (230) were 'Instrumental Phrases' or 'Locative Phrases', (230) would be ungrammatical, since, as I pointed out in Chapter One, two phrases that are semantically equivalent must be co-ordinated.

This use of *with* differs from its Instrumental use in the fact that these locative expressions occupy an argument position, since the verbs *to leave* and *posar* ('to put') require three arguments: {AG, Theme, Location}. Therefore, in (226) (for example, *I left the key with my wallet* (=(226a)), there is no adjunct.

6. FREE ADJUNCTS

There is a construction headed by the preposition *with* which usually appears at the beginning of the sentence and which is known as *free adjunct* (see (231)).

(231) a. *Con este   profesor*, todo el   mundo trabaja
          with this-masc teacher   all   the-masc-sg world   works
          'With this teacher, everybody works'   (Spanish)
                                        (Example taken from Hernanz (1993:126)).

     b. *Amb aquesta serra*, no tallaràs   res
          with   this-fem saw   not will cut-III-sg nothing
          'With this saw, you will not cut anything'   (Catalan)

Although examples of these constructions appear throughout the literature, they are rarely differentiated from 'Instrumental Phrases' or from other uses of *with*. Among the authors that give free adjunct examples or deal with them, there are Greenbaum & Quirk (1997), Hernanz (1993), Huumo (1998:66-67), Nilsen (1973:30, 44), Quirk et al. (1988), Rigau (in press: §14.2., §14.2.2.) and Suñer (1988)).

As noted by Hernanz (1993:126-127), free adjuncts can belong to different grammatical categories:

(232) a. *De pie*PP, este niño se   cansa   (Spanish)
          of foot   this   boy   refl. gets tired
          'Standing, this boy gets tired'

     b. *Furiosos*AP,   los   leones pueden atacar al
          furious-masc-pl the-masc-pl lions   can   attack to+the-masc-sg

          domador   (Spanish)
          trainer
          'If furious, the lions can attack the trainer'

What syntactic differences are there between a free adjunct introduced by *with* and an 'Instrumental Phrase'?

A) As Hernanz (1993:140-141) remarks, free adjuncts are not topicalised elements, since there is no resumptive pronoun inside the sentence (see (233a)). By contrast, when an 'Instrumental Phrase' is topicalised, there must be a resumptive pronoun in the sentence (see (233b)).

(233) a. *Amb aquest professor*FREE ADJUNCT, tothom treballa

    (Catalan) (Example taken from Hernanz (1993:142))[68].

    b. *Amb aquest ordinador*INSTRUMENTAL, els   becaris ***hi***

        with this-masc computer   the-masc-pl scholars pr

        hem   escrit   la   tesi   (Catalan) (=(85))

        have-I-pl written   the-fem-sg thesis

        'With this computer, the scholars have written the thesis'[69]

In (233a), the PP *amb aquest professor* is not a focalised phrase because there is no contrastive intonation. In fact, in (231b) (*Amb aquesta serra, no tallaràs res* 'With this saw, you will not cut anything'), there is a free adjunct that designates a tool. However, since there is no resumptive pronoun in the sentence, *amb aquesta serra* ('with this saw') is not understood as an 'Instrumental Phrase', but as a free adjunct[70].

B) A focalised or topicalised Instrumental is always interpreted under the scope of negation because its resumptive pronoun is c-commanded by the negation. The sentence can be enlarged, which shows that what is being really negated is the 'Instrumental Phrase' (see (234)). In contrast, a free adjunct never falls under the scope of negation (see (235)).

(234) *Amb aquest ordinador*INSTRUMENTAL *,* els becaris *no **hi*** hem escrit la

    tesi; l' hem   escrit *amb aquella màquina d'escriure*

    pr have-I-pl written with   that-fem typewriter

---

[68] This example is the Catalan version of (231a). I use Catalan examples because Catalan is a language that has resumptive pronouns.
[69] Nowadays, teenagers tend to omit the resumptive pronoun *hi*. However, some speakers still feel its use obligatory.
[70] As Zulema Borràs pointed out to me, temporal adjuncts may behave similarly to 'Instrumental Phrases' in the sense that, depending on the category they adjoin to, they behave like a circumstantial adjunct or as a free adjunct.

'With this computer, the scholars have not written the thesis, we have written it with that typewriter'   (Catalan)

(235)   *Amb aquesta serra*FREE ADJUNCT, no tallaràs   res;   ho
        with this-fem-sg saw   not will-cut-III-sg nothing it
        masegaràs   (Catalan)
        will pound-III-sg
        'With this saw, you will not cut anything; you will pound it'

C) In contrast with the topicalised Instrumental in (233b), free adjuncts have a propositional value (causal, conditional, etc.). In Huumo's (1998:66) words, '*the type of instrumental with the loosest connection to the clause nucleus is probably that where the instrumental phrase merely introduces a condition making it possible for a (hypothetical) event or state to occur'.* This hypothetical or propositional value manifests itself in some paraphrases (see (236)).

(236)   a.   *Teniendo a   este   profesor*, todo el   mundo trabaja
             having   prep this-masc teacher   all   the-masc-sg world   works
             'Having this teacher, you will work / everybody works'
        (cf. (231a). (Spanish). Example taken from Hernanz (1993:158)).
        b.   *Si fas servir aquesta serra*, no tallaràs   res
             if uses   this-fem   saw   not will cut-III-sg nothing
             'If you use this saw, you will not cut anything' (cf. (231b))

D) Suñer (1988:102) and Huumo (1998:67-68), neither of whom call this kind of phrases free adjuncts, exemplify that they can coappear with another complement introduced by *with* without being co-ordinated, which means that they are not semantic equivalents.

(237)   a.   *Con toda la   policía rodeando   el   edificio,*
             with all-fem the-fem-sg police   going around the-masc-sg building

             los   secuestradores salieron *con los   brazos en alto*
             the-masc-pl kidnappers   went out with the-masc-pl arms   in   up

'With all the police surrounding the building, the kidnappers went out with their arms up'   (Spanish)

b.   *Los secuestradores salieron *con los brazos en alto y con toda la policia rodeando el edificio*

(Examples taken from Suñer (1988:102)).

As a matter of fact, a free adjunct can coappear with an 'Instrumental Phrase' (Huumo (1998:68) illustrates this statement with Finnish examples)[71] :

(238) a.   *Con los   Boixos Nois chillando*_{FREE ADJUNCT}, es imposible
with the-masc-pl Boixos Nois   screaming   is impossible

boicotear el   partido *con tus   silbidos*_{INSTRUMENTAL}
boycott   the-masc-sg match   with yours whistles
'With the Boixos Nois screaming, it is impossible to boycott the match with one's whistles'   (Spanish)

b.   *Es imposible boicotear el partido *con los Boixos Nois chillando siempre y con tus silbidos*

E) A last difference between free adjuncts and 'Instrumental Phrases' that neither Hernanz (1993) or Suñer (1988) have pointed out is that the former can appear with any sort of verb while the latter can only appear with causative verbs, as I have largely argued:

(239) a.   *Amb aquesta casa*_{FREE ADJUNCT}, qualsevol seria   feliç

with this-fem house   anybody   would be-III-sg happy
'With this house, anybody would be happy'   (Catalan)

---

[71] However, when the free adjunct designates an Instrumental, there cannot be another 'Instrumental Phrase' in the sentence, as seen in (i):

(i)   *Amb aquesta   serra_{FREE ADJUNCT}, no tallaràs   res   amb
with this-fem-sg saw   not will cut-III-sg nothing with

aquestes estisores_{INSTRUMENTAL}   (Catalan)
these-fem scissors

b. *L'   inspector repassa el   cas *amb el   revòlver*

the-masc-sg inspector reviews the-masc-sg case with the-masc-sg gun

'*The inspector reviews the case with the gun'   (Catalan)

As free adjuncts have propositional value and establish the setting where the action expressed by the verb takes place, they are not circumstantial adjuncts but sentential ones. Therefore, they will adjoin to some functional category.

7. OTHER USES

Apart from all the uses that I have just described, the preposition *with* / *amb* (Catalan) / *con* (Spanish) appears in three more constructions that I have not mentioned yet. The first one is illustrated in (240):

(240) a.   A la merda *amb les   teves   manies!*   (Catalan)

to the shit   with the-fem-pl your-fem-pl fads

'Go to hell with your fads!'

b.   ¡Al   agua *con él!*   (Spanish)

To+the-masc-sg water with him

'To the water with him!'

c.   Down *with the Party!*

d.   Into the dungeon *with him!*

(Examples (b)-(c) are taken from Suñer (1988:106-107) and example (d) is taken from Nilsen (1973:43)).

Next, I outline the main characteristics of this construction, which an 'Instrumental Phrase' can never have:

- In sentences (240) there is no verb, while an Instrument must always appear next to one. Moreover, the verb in (240) cannot be easily recovered.

- A PP or an AdvP with locative meaning always occupies the initial position.

'*With this saw, you will not cut anything with these scissors'

- The only preposition that can appear in (240) is *with*. In contrast, despite the fact that I have only dealt with Instrumentals headed by the preposition *with*, other prepositions (*without, by, du* (French)) can head an 'Instrumental Phrase'.

- The constructions in (240) are always exclamations.

- According to Suñer (1988:107), the locative and the DP headed by *with* must respect some semantic conditions as seen in (241). Suñer suggests that these semantic conditions are similar to those that govern the well-formation of small clauses. I will leave this question open.

(241) *¡Al   agua con la   dictadura!   (Spanish)
       to+the-masc-sg water with the-fem-sg dictatorship

       'To the water with the dictatorship!'
                                   (Example taken from Suñer (1988:107)).

The two remaining constructions with the preposition *with* / *amb* (Catalan) / *con* (Spanish) are the ones illustrated in (242) and (243):

(242) *Con ser Álvaro tan sagaz,*   no evitó   que le   engañasen
       with be Álvaro   so sagacious not avoided-III-sg that him-dat lied-III-pl
       'Despite being so sagacious, Álvaro did not avoid being lied to'
                                   (Example taken from RAE (1991:439-440)).

(243) a.   *Amb que ara no s' hi negui,*   ja   ho arreglarem
             with that now not pr pr refuse-subj-III-sg already it will sort out-I-pl
             'As far as he does not refuse it, we will sort it out' (Catalan)
             (Example taken from Badia i Margarit (1995:325)[72]).

       b.   *Con que me lo digas   dos horas antes,* es suficiente
             with that to me it tell-subj-II-sg two hours before   is enough
             'As far as you tell me about it two hours before, it will be
             enough'   (Spanish)

---

[72] Although Badia i Margarit (1995:325; 394) states that *amb que* ('with that') is a Catalan conditional connector that belongs to a formal register, it is seldom used.

In (242), the preposition *con* introduces a Concessive construction, whereas in (243) the preposition *amb* (Catalan) / *con* (Spanish) introduces a Conditional one. Neither of these latter uses of *amb* (Catalan) / *con* (Spanish) can be confused with the Instrumental one, since (242) and (243) can be paraphrased with a Concessive and a Conditional sentence respectively (see (244) and (245)), while an Instrumental PP can never be paraphrased by a sentence:

(244) *Aunque Álvaro es tan sagaz,* no evitó que le engañasen
　　　 although Álvaro is so sagacious not avoided that him lied-III-pl
　　　 'Although Álvaro is so sagacious, he did not avoid being lied to'
　　　　　　　　　　　　　　　　　　　　　　　　　　　(Spanish)

(245) a. *Si ara no s' hi nega,*　　　　 ja　　 ho arreglarem
　　　　　 if now not pr pr refuse-subj-III-sg already it will sort out-I-pl
　　　　　 'As far as he does not refuse it now, we will already sort it out'　　　　　　　　　　　　　　　　　　　 (Catalan)

　　　 b. *Si me lo dices　 dos horas antes,* es suficiente
　　　　　 if to me it tell-II-sg two hours before   is enough
　　　　　 'As far as you tell me about it two hours before, it will be enough'　　　　　　　　　　　　　　　　　　　 (Spanish)

Another difference between these uses of *with* and the Instrumental one is that the Concessive and Conditional *with* heads a PP whose complement cannot be a DP: it must be a CP (see (246)). Nevertheless, the Instrumental *with* heads a PP whose complement is always a DP (see (247)).

(246) [$_{PP}$ con [$_{CP}$ [$_{IP}$ ser Álvaro tan sagaz]]] ...　　➥ Concessive *with*

(247) [$_{PP}$ ... con [$_{DP}$ la llave nueva]]... [73]　➥ Instrumental *with*

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[73] I have simplified the syntactic structure that I defended in Chapter Two. To be coherent with the syntactic hypothesis I advocated in Chapter Two, section 2.2.2., the structure of (247) should be the following:

Thus, those adjuncts in (242) and (243) are sentential adjuncts, not circumstantial adjuncts like the 'Instrumental Phrase'. As all sentential adjuncts, Conditional and Concessive PPs will adjoin to a functional category, not to a member of the Thematic Phase. Moreover, it could be argued that the Conditional *with* is preceded by an empty semantic operator as Hernanz (1993:165) suggests for free adjuncts (see (248)).

(248)   Op... [$_{XP}$ ...] [$_O$ ...]

(Schema taken from Hernanz (1993:165)).

In (248), *Op* stands for a semantic operator that would have scope over an *XP(hrase)*, which would be equivalent to the protasis of a Conditional sentence. $_O$ stands for sentence. As sentential adjuncts are licensed through a different mechanism from that of circumstantial adjuncts, I leave this issue here.

In summary, in this appendix I have briefly made reference to other constructions which contain the preposition *with*. Some of them can be classified as circumstantial adjuncts (for instance, Manner and Material). Others are clearly sentential adjuncts (for example, free adjuncts, Concessive *with* and Conditional *with*) and adjoin to a functional category.

As I have suggested along the work, all circumstantial adjuncts introduced by the preposition *with* or its Romance counterparts should have a similar syntactic structure and should adjoin to a category of the Thematic Phase (Chomsky (1998)). On the other hand, sentential adjuncts merge with functional categories.

Before definitely finishing this appendix, it must be noted that I have been using labels such as *Conditional with*, *Concessive with,* etc. By using these notations, I do not mean that there are different homophonous *with*. At least for some circumstantial

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(i)   [$_{PP}$ PRO [$_{P'}$ *con* [$_{DP}$ *la llave nueva*]]]

adjuncts, I have taken pains to show that they are headed by the same preposition, that the same mechanism licenses them (syntactic adjunction) and that the only difference between them is conceptual. Thus, the question of determining how many prepositions *with* there are remains open.

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