

Why Nominal Infinitives Express Manner*

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Abstract

The goal of this paper is to give an explanation of the meaning of nominal infinitives. We assume that the regular meaning of nominal infinitives in Catalan is what is called *manner reading*. We argue that the manner reading is due to a particular Lexical Conceptual Structure (LCS) related to the phrases headed by a nominal infinitive. This LCS is a complex structure generated by means of a semantic rule of lexical extension linked to the morphological process of the nominalization of the verbal root.

Key words: nominal infinitives, lexical conceptual structures, morphology.

Resum. *Per què els infinitius nominals expressen manera?*

L'objectiu d'aquest article és explicar el significat dels infinitius nominals. Assumim que el significat normal dels infinitius nominals en català és el que anomenem una *lectura de manera*. Proposem que aquest valor és degut a una Estructura Lèxica Conceptual (ELC) concreta que tenen els sintagmes encapçalats pels infinitius nominals. Aquesta ELC és una estructura complexa que es genera gràcies a una regla semàntica d'ampliació lèxica lligada al procés morfològic de nominalització de l'arrel verbal.

Paraules clau: infinitius substantivats, estructures lèxiques conceptuals, morfologia.

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0. Introduction

Many languages have constructions where an infinitive is placed under a DP. Depending on the language, the infinitive can retain all or some verbal characteristics but there also exists the possibility of having an infinitive without verbal properties. In this case, the infinitive behaves like a noun with regard to the syntax. This is the sole possibility in Catalan: infinitives under DP are always nouns. We call them *nominal infinitives*.

In the linguistic literature, we find multiple proposals to explain the nominal category of these infinitives. Frequently, these proposals refer to the meaning of the nominal infinitive constructions. Nevertheless, only a few of them face how this meaning is generated. The aim of this paper is dealt with this point: the meaning of the constructions headed by a nominal infinitive.

The example in (1) is ambiguous. It is a nominal infinitive that has the two readings shown in (2). We name them *object* reading and *manner* reading.

- (1) el parlar d'en Joan
the talkN of-the Joan

- (2) a. Joan's idiolect
b. Joan's way of talking

We assume that the object reading is a lexicalized reading because it is a non predictable meaning, it is neither regularly created nor regularly interpreted. Not all nominal infinitives have an object reading; in fact, they are scanty in Catalan. Those that have it are treated in the dictionaries as nouns, independent from verbs, they have their own lexical entry. So, we believe that the object reading is not due to a productive process and that it is in the lexicon as an idiosyncratic meaning of a lexical entry.¹

Nevertheless, the same does not occur when the nominal infinitive obtains the manner reading. If a verb can generate a nominal infinitive in Catalan, the regular meaning is the manner reading. Although these nominal infinitives undergo several restrictions of formation, they are used in learned language; they can be created and they can be understood. That means that they are the output of a some kind of regular process. Observe the data in (3), where the glosses indicate that we are facing the manner reading, not the object reading.

- (3) a. el lent caminar d'en Pere
the slow walkN of-the Pere
'Pere's slow walking'

1. In addition, we can find verbal roots that never give rise a manner reading when they are nominal infinitives: modal verbs (*el poder*, 'the power'), transitive verbs (*l'esmorzar*, 'the breakfast') and also attributive verbs (*l'ésser*, 'the being'). That suggests that lexicalization is a diachronic process that links an element of whatever category to a particular meaning and includes it in the lexicon as an independent entry.

- (3) b. El «Depor» va tenir un bon perdre.
 the Depor had a good losing
 'The «Depor» were good losers.'
- c. «...reconeixent-li el cos i la veu, el caminar i
 recognizing-herDAT the body and the voice the walkN and
 el somriure i la manera de moure les mans...»
 the smileN and the way of moveINF the hands
 'recognizing her body and voice, her way of walking, and smiling, and
 moving her hands...'
- d. Tenia el dormir molt prim.
 had the sleepN very thin
 'She was a very light sleeper.'
- e. Era molt deixat en el vestir.
 was very careless in the dressN
 'He had a rather careless way of dressing.'

In other languages, the manner reading alternates with other readings. In Spanish, as Hernanz (1982) showed, an infinitival construction of this type can be ambiguous between a manner and a process reading. Freire (1976) noted that, in Galician, the manner reading alternates with an event reading. Finally, it is well known that English gerundive constructions may have an object, a manner or a process reading (cf. Katz and Postal (1964)).²

The fact that the *manner* is the reading regularly present in many languages and the fact that in Catalan we can create new nominal infinitives only with this reading lead us to think that this reading is due to some process, shared by several languages, that goes beyond the simple nominalization.

If the expression of manner is due to a process, we must explain which kind of process it is and answer the question that comes to mind: how do the phrases in (3) express manner if none element of the constructions is visibly related to a manner item?

In this paper we suggest an analysis of manner constructions that involves lexical conceptual structures. Data come mainly from Catalan although, sometimes, examples from other languages are adduced in support of some point. The organization of the paper is as follows. In the first section, we outline the hypothesis that explains the generation of nominal infinitives with a manner reading. In the second section, we present the data that support the hypothesis. Next section shows our hypothesis in detail dealing with theoretical questions. Finally, last section concludes the paper and comes across some unsettled points.

2. We must be careful with the process reading. It is possible that when we have a process reading we are not facing a true nominal infinitive but an hybrid infinitive, with some verbal properties and some nominal properties. Remember that languages with process reading are languages that allow a verbal infinitive under DP.

1. The Hypothesis

Our hypothesis is within the framework of lexical semantics. Lexical semantics attempt to specify the mental representation underlying people's knowledge of word meaning and it treats the word meaning as the base of syntactic representation. We follow the work by Jackendoff (1990), Levin and Rapoport (1988) or Rappaport, Levin and Laughren (1987), though we make use of a simplified formalism.

We assume that the lexicon consists of a group of lexical entries, a set of word formation rules and rules of semantic composition. We postulate that nominal infinitives which express manner are due to two kinds of lexical rules. On one hand, rules of semantic composition subordinate the Lexical Conceptual Structure (henceforth LCS) of a verbal root to an abstract value that we call *manner* giving rise to a complex LCS where *manner* is the head. On the other hand, morphological rules add to the verbal root a morpheme *-r* that we consider the cause of the nominalization of the verb. In fact, as we will see at the end of the paper, the *-r* morpheme and the manner value stand for a morphological process and a semantic process which are the two faces of a complex phenomenon.

In this way, the rule in (4) gives an account of the nominalization of the infinitive whereas (5) and (6) show how the rules of semantic composition act on the LCSs. In (5), there are two independent LCSs, they combine and give the complex LCS (6) attributed to the phrases with manner reading.

Morphological process

$$(4) \quad [X \ v] \rightarrow [[X \ v] \ -r \ N]$$

Semantic process

$$(5) \quad \text{LCS}_1: [X \ V] \quad \text{LCS}_2: [\text{MANNER } Y \ X]$$

$$(6) \quad \text{LCS}: [\text{MANNER } [X \ V] \ X]$$

According to (6), MANNER acts as the head of an LCS. Then, MANNER will have to determine the properties of the nominal infinitive phrase and, in fact, this is what happens. First, given that MANNER can be understood as an inalienable possession element, we can capture the obligatory nature of the complement. If MANNER is the head of the construction, then the complement is obligatory by means of being the inalienable possession. Moreover, the idea of the inalienability explains why the occurrence of the nominal infinitive constructions with adjectives, determiners and some matrix verbs is so restricted.

On the other hand, (6) shows that, in the LCS of our constructions with MANNER as the head, there are two identical variables, the former stands for the External Argument of the verbal root and the latter is the Possessor. We will try to demonstrate that the syntactic complement of the nominal infinitives is related to both variables giving rise to an intuitive ambiguity.

Summing up, the assumption that a lexical conceptual value MANNER is the head of our phrases contributes to understand their syntactic properties.

2. The Expression of Manner and Its Context

However, having the manner reading is not so simple as we have shown until now. Phrases headed by a nominal infinitive not only express manner but they may also have an object reading, as shown in (1). One reading or another is available depending on the context. A bare nominal infinitive, without adjectives and complements, tends to be interpreted as an object, whenever the object reading is available, otherwise it becomes ungrammatical. At first glance, we see that the manner reading is favoured by the presence of a complement, as well as adjectives. Certain determiners and some matrix sentences also contribute to get the manner reading. In fact, the behaviour of the complement, adjectives, determiners and matrix sentences with regard to nominal infinitive constructions reveals, as we said, that a manner value is the head of the phrases. We will refer to this point in the next paragraphs.

2.1. The Complement

The complement of a nominal infinitive that express manner is always obligatory. When the complement is not present, the manner reading is not available. Moreover, the absence of the complement leads either to an ungrammatical phrase (8b) or to a change of meaning (8a). The manner reading is only possible when the complement is present.

- (7) a. el parlar d'en Pere
the talkN of-the Pere
'Pere's way of talking' / ('Pere's idiolect')
- b. el caminar d'en Pere
the walkN of-the Pere
'Pere's way of walking'
- (8) a. el parlar
the talkN
'the dialect'
- b. *el caminar
the walkN

The obligatory nature of the complement leads us to think of nominalizations when nominalizations have a process reading, as Grimshaw (1990) showed. In these nominalizations, there is an obligatory complement as well. She imputes the necessity of the complement in the process nominals to the eventive value of the nominal: expressing a process requires the presence of arguments that play a role in this process, i.e., the eventive reading needs an argument structure (AS). In this sense, we assume that the complement in our constructions is due to a some kind of argumental structure of the infinitival phrase, although the AS of process

nominalizations and the AS of our nominal infinitives do not follow from the same grammatical case.³

All the examples we have given of nominal infinitives with manner reading can be paraphrased as in (9) where the manner value is expressed as a noun (see (10)).

- (9) la manera de fer una cosa d'algu
 the way of doINF a thing of-somebody
- (10) a. el caminar d'en Pere
 the walkN of-the Pere
- a'. la manera de caminar d'en Pere
 the way of walkINF of-the Pere
- b. el parlar d'en Joan
 the talkN of-the Joan
- b'. la manera de parlar d'en Joan
 the way of talkINF of-the Joan

The examples where manner is lexically expressed have the same characteristics as the phrases headed by a nominal infinitive and the complement is also obligatory. The phrase in (11a) is ruled out since the complement is absent, whereas in (11b) the presence of the complement turns the construction into a grammatical phrase.⁴

- (11) a. *la manera de caminar
 the way of walkINF
- b. la manera de caminar d'en Pere
 the way of walkINF of-the Pere

3. In spite of assuming that nominal infinitives have an AS and that they are similar to eventive nominalizations, there is evidence that they are not eventive nominal infinitives. In (i), adjectives pretending to qualify an event turn the phrases into ungrammatical constructions.

- (i) a. *el constant parlar de la Maria
 the constant talkN of the Maria
- b. *l'interminable riure d'en Pere
 the-interminable laughN of-the Pere

4. A sentence as (11a) could be grammatical in the context of (i) or (ii):

- (i) a. La manera de caminar delata les models.
 the way of walkINF betrays the models
- b. El caminar delata les models.
 the walkN betrays the models
- (ii) En lo vestir estar el sentir.
 in the dressN is the feelN

(Folk saying)

'In one's way of dressing lies one's way of feeling.'

Nevertheless we can find an explanation to these examples. In (i), the object of the verb is interpreted as the possessor of the manner. Syntactically, we can postulate a PRO in the position of the possessor. In the second case (ii), there is no possessor available, even though we assume that it exists an arbitrary PRO acting as the possessor.

We can find an easy explanation to that point. In addition to a propositional complement, a kind of obligatory complement to which we refer in the section 3, *manera* ('manner') needs the complement *d'en Pere* because it behaves as, or it is, a noun of inalienable possession. We consider that inalienable possession nouns are nouns with an argument structure (AS). The AS of an inalienable possession noun consists of one argument: the possessor.⁵ As argument, the expression of the complement in the constructions with the noun *manera* is always obligatory.

In this way, even though the manner is not lexically expressed in the nominal infinitive phrases, we claim that it exists in the nominal infinitive constructions as an underlying value, a kind of lexical conceptual element. This value, as the noun *manera*, is an inalienable possession element and, as such, it has an AS. One of its arguments is the possessor and it is expressed in our constructions by the obligatory complement (*d'en Joan*, *d'en Pere* and so on). Thus, we consider that it is the manner value that requires the complement.

Furthermore, if MANNER, as a lexical conceptual element, behaves exactly as the noun *manera* with regard to the complement and if the noun *manera* is the head of its phrase, then, the manner value will also be the head of its phrase, as we advanced.

One could wonder if the complement in the nominal infinitive construction is, in fact, an inherited argument from the verb AS, in the way as eventive nominalizations inherit the argument structure of the verbal root (cf. Grimshaw (1990)). We can not deny that the complement holds a relationship with the external argument of the verbal root. However, data lead us to think that we are not facing a true inheritance of the external argument. First of all, when we talk about inheritance in nominalizations, we usually refer to the internal arguments of a verbal root. In the manner constructions instead, the verbal root do not have internal arguments because it is always an intransitive verb. As we can see in (12), when a transitive verb accepts the manner construction, it is always used in an absolutive sense, that is, without internal arguments.

- (12) a. ?el cantar d'en Pere
 the singN of-the Pere
 'Pere's way of singing'
- a'. *el cantar (de) la Marsellesa d'en Pere
 the singN of the Marsellesa of-the Pere
- b. ?el mirar de la Maria
 the lookN of the Maria
 'Maria's way of glancing'
- b'. *el mirar (de) la televisió de la Maria
 the watchN of the television of the Maria

5. For a different approach to inalienability, see Vergnaud and Zubizarreta (1992). They too contend that inalienable possession nouns have an external argument.

In the constructions with eventive nominalizations, the external argument is projected as an adjunct, an optional element, and in Catalan it is introduced by the prepositional expression *per part de* ('on the part of'). In our infinitival constructions, it is obvious that the sole inheritable thing is the external argument but, in this case, neither it can be introduced by the prepositional expression *per part de* nor it is an adjunct because it is not optional. It seems that either we are not facing the same phenomenon or, perhaps, it is another kind of inheritance, different from the one stipulated for the eventive nominalizations.

Going back to the comparison between the nominal infinitive constructions and phrases where manner is lexically expressed, we will be able to explain that the complement is not the external argument of the verb but, although this, it is related to it.

We said above that a noun as *manera* has its own argumental structure. As an inalienable possession noun, *manera* has a possessor argument, but it also has another argument that we call propositional argument and that is obligatory as well. The propositional argument has the syntactic structure of a sentence, with a verb that assigns Case and thematic roles and accepts adverbial modifiers. We can see that in (13):

- (13) a. La manera [de PRO fer constantment la punyeta] d'en
 the way of doINF constantly the damnations of-the
 Pere em fa posar nerviós.
 Pere meACC does put nervous
 'Pere's way of constantly pester around makes me nervous.'
- b. La manera [de PRO pensar en la Maria] d'en Joan és obsessiva.
 the way of thinkINF in the Maria of-the Joan is obsessive
- c. la manera [de PRO pelar patates] d'en Ramon fa riure.
 the way of peelINF potatoes of-the Ramon makes laugh

If the propositional argument in (13) is a sentence, we should consider that the external argument is projected inside the proposition, where it receives a thematic role from the verbal infinitive, and that the verb, being an infinitive, is unable to assign Nominative Case. The unic element that will be able to be placed in the subject position is PRO. Thus, we can conclude that the external argument of the verb and the possessor are distinct arguments.

Despite the different nature of the possessor and the external argument of the verb, we can not deny that they hold a relationship: intuitively, they are the same. In fact, the syntactic behaviour provides evidence to that point. The subject of the proposition and the possessor of the manner must be coreferent. In (14), the predicative element in the infinitival clause reveals whether the referent of the PRO is masculine or feminine and we can discover if PRO is coreferent with the possessor or not.

- (14) a. *la manera [de PRO_i caminar [ajupida]_i] d'en Pere_j
 the way of walkINF crouchedFEM of-the PereMASC

- (14) b. la manera [de PRO_i caminar [ajupit]_i] d'en Pere_i
 the way of walkINF crouchedMASC of-the PereMASC

Since we have assumed that nominal infinitives are nouns and they do not keep the properties of a verbal elements, there is no syntactic reason to postulate an external verbal argument coreferent with the possessor. Nevertheless, we need an explanation to the intuition that they are semantically the same.

If we look at the LCS (6) that we have postulated for our constructions, we can see that two variables are reflected. This means that the LCS of these constructions contains two variables, the former is the external argument of the verbal root and the latest is the possessor. An LCS is projected into the syntax by means of an AS. We claim that two identical variables in the LCS are projected into a unic argument in the AS. So, in spite of having two variables in the LCS, we have a single argument in the AS, and a unic complement in the syntax. Then, the relationship that we intuitively found between the possessor and the external argument of the verb is true, but it is a relation that holds in the lexicon, not in the syntax.

2.2. Adjectives, Determiners and Matrix Sentences

Adjectives, determiners and matrix sentences are three elements of the context where nominal infinitives are placed. They differ from the complement in the fact they are not obligatory and that they share a characteristic: they all are allowed to occur within nominal infinitive phrases if they are able to appear in the phrases where *manera* is lexically expressed. Which elements are allowed or disallowed can only be explained if we assume that the manner value is the head of the construction and that it is an inalienable possession element. The syntactic behaviour of these elements supports the hypothesis given above.

2.2.1. Adjectives

Again, the kind of adjectives found in our constructions justify the idea that the manner value is the head of the phrase and that it is an inalienable possession element.

Only a few adjectives can appear in phrases with a manner reading. They are the same ones that are able to qualify the noun *manera*. They are adjectives such as *lent* ('slow'), *dolç* ('sweet'), *suau* ('soft'), etc.⁶

6. Katz and Postal (1964) noted that the adjectives of these infinitival constructions are related to the adverbs included in sentences with an inflected verb, as (i) shows.

(i) a. el lent caminar d'en Pere
 the slow walkN of-the Pere
 b. En Pere camina lentament.
 the Pere walks slowly

Nevertheless, since now, it has been very difficult to clarify what is the precise relationship between adjectives and adverbs. We leave open this question. See Crisma (1993) and Martí (1993) on this issue.

- (15) a. el lent caminar d'en Pere
 the slow walkN of-the Pere
 a'. la lenta manera de caminar d'en Pere
 the slow way of walkINF of-the Pere
 b. el dolç parlar d'en Joan
 the sweet talkN of-the Joan
 b'. la dolça manera de parlar d'en Joan
 the sweet way of talkINF of-the Joan

If an adjective is impossible with the noun *manera*, it will not be accepted in nominal infinitive constructions. In (16), the adjective *groc* turns ungrammatical both the nominal infinitive construction (16b) and the phrase headed by the noun *manera*, (16a).

- (16) a. *la groga manera de riure d'en Pere
 the yellow way of laughINF of-the Pere
 b. *el groc riure d'en Pere
 the yellow laughN of-the Pere

This provides evidence that phrases with manner lexically expressed and phrases with nominal infinitives are related. The relation can be captured by assuming that *manner* acts in both constructions as the head. The only difference is that in one case this value is a lexical item, and in the other case it is a conceptual value.

In addition, the adjective tends to occur in preinfinitival position, as we have seen above. This relates to the fact that they are appositive adjectives, and appositive adjectives tend to appear in the prenominal position in Catalan. An adjective in a postinfinitival position will receive a restrictive reading and, as we can observe in (17), restrictive adjectives sound odd.

- (17) a. ??el parlar estúpid de la Maria
 the talkN stupid of the Maria
 b. ??el vestir «hippie» d'en Joan
 the dressN hippie of-the Joan

If the head of the construction is MANNER, the adjectives will take MANNER as its subject. Then, the possibility or the impossibility of an adjective is due to the manner value. As we pointed out, manner is an inalienable possession element. In another words, we suggest that an inalienable possession has a unic existence in the world. So, it is clear that only appositive adjectives will be able to occur in nominal infinitive phrases because restrictive adjectives would imply that there exists more than one way of doing something, that someone has more than one manner of doing something.⁷

7. However, this is an intuitive explanation. That an inalienable possession be unic depends on our knowledge of the world. For instance the noun *finger* is an inalienable possession noun. Although

2.2.2. The Determiner

With regard to determiners, we repeat the idea that these constructions accept the determiner that is compatible with the noun *manera*, that is: the definite article, the indefinite article (18,19a) and demonstratives (18,19b). If a determiner is not allowed with the noun *manera*, neither will it be allowed with the nominal infinitive as (20,21) show:

- (18) a. En Pere té un dolç parlar.
 the Pere has a sweet talkN
 ‘Pere’s way of talking is sweet.’
 b. Aquell caminar d’en Pere m’irritava.
 that walkN of-the Pere meACC-angered
- (19) a. En Pere té una manera dolça de parlar.
 the Pere has a way sweet of talkINF
 b. Aquella manera de caminar d’en Pere m’irritava.
 that way of walkINF of-the Pere meACC-angered
- (20) a. *Molts riures d’en Pere no m’agraden.
 many laughs of-the Pere not meDAT-like
 b. *Algun caminar d’en Pere m’irritava.
 some walkN of-the Pere meACC-angered
- (21) a. ??Moltes maneres de riure d’en Pere no m’agraden.
 many ways of laughN of-the Pere not meDAT-like
 ‘I do not like many of Pere’s ways of laughing.’
 b. ??Algunes maneres de caminar d’en Pere m’irritaven.
 some way of walkINF of-the Pere meACC-angered
 ‘Some of Pere’s ways of walking irritated me.’

Again, we must turn to semantics to give an account of the data (18-21). The exclusion of quantifiers runs parallel to the exclusion of restrictive adjectives. Generally, an inalienable possession element does not admit quantification because quantification implies the existence of more than one individual. Then we will insist on the fact that the head of this construction is not the nominal infinitive but the manner value, and manner is an inalienable possession element.

this, it does not have unic existence but eight and, in this case, it accepts restrictive adjectives. On the other hand, *manner* could not be interpreted as unic if, for example, we are talking about a schizophrenic. Nevertheless, we assume that *manner* is unic because people only have one way of doing something or, at least, one way that characterize them.

2.2.3. Matrix Sentences

Phrases with a nominal infinitive with manner reading can not act as an argument of some predicate. There are predicates that favour the manner reading but other ones, instead, avoid constructions denoting manner.

Nominal infinitives are often internal argument of the verb *tenir* ('to have'). In this case, they are necessarily modified by an adjective as in (22).⁸ Psychological verbs (23) also admit a manner construction as their complement.

- (22) a. En Joan té el parlar *(dolç).
the Joan has the talkN sweet
- b. En Pere té el dormir *(lleuger).
the Pere has the sleepN light
- (23) a. El caminar d'en Joan no m'agrada.
the walkN of-the Joan not meDAT-like
'I do not like Joan's (way of) walking.'
- b. No suporto el parlar de la Maria.
not stand the talkN of the Maria
'I can not stand Maria's way of talking.'

Many predicates as, for example, factive verbs, do not admit the nominal infinitives as their argument. It is not necessary to say that neither the *manera* headed phrases can be placed in these constructions, as (24) shows.

- (24) a. *Lamento el caminar d'en Pere.
regret the walkN of-the Pere
- b. *Lamento la manera de caminar d'en Pere.
regret the way of walkINF of-the Pere

To conclude, we have shown that we cannot explain the characteristics of nominal infinitive constructions if we do not appeal to a manner value. Manner value heads the constructions and it is an inalienable possession element. All of that supports the hypothesis outlined in section 1. It is time now to explain how it can be theoretically accepted.

3. Defence of the Hypothesis

3.1. The Semantic Process

Data demonstrate that the syntactic behaviour of nominal infinitives goes together with their meaning. In the first section, we have presented under (6) an LCS con-

8. If we have an indefinite, we can also have a relative clause as complement. Nominal infinitives with indefinites are subject to several restrictions. For instance, they are only possible with predicates like *tenir* ('to have'). We will not go deeper into this.

ceived for our constructions. It is time now to explain how this LCS is generated. We advanced that the lexicon consists of a group of lexical entries besides word formation rules and rules of semantic composition. We do not propose a new model of lexicon but we assimilate some existing proposals by several linguists.

According to Jackendoff (1990), in a lexical entry, there is phonological, morphosyntactic and semantic information. Each kind of information stands for a different component of the grammar. These components work independently and some rules, called Correspondence Rules, serve as link among them.

On the other hand, Rapoport, Levin and Laughren (1987) propose that, in a lexical entry, there is, on one hand, a lexical syntactic representation called *Predicate-Argument Structure* (for us AS), that contains the arguments required by a predicate; on the other, there is a lexical semantic representation, called LCS, which specifies the meaning of the lexical item and the variables that the meaning involves. However, these two representations are not completely independent: the AS of a lexical item is, in fact, a projection of its LCS.

Although there are differences between the two proposals, what they have in common is to conceive the semantic structure as a structured level of representation regulated by the existence of semantic primitives that combine among them to form more complex structures. One process of combination is that one described by Rapoport and Levin (1987) to account for the creation of resultative constructions from non resultative verbs. They propose a process of meaning extension at the level of lexical structures called lexical subordination. In their words: "lexical subordination takes a verb in its original, or basic sense and subordinates it under a lexical predicate" (Levin and Rapoport (1988:282)).

In our case, we must give an account of the generation of nominal infinitives with manner reading from verbal infinitives. We claim that the combination of the manner value with verbal infinitives is due to a process of lexical subordination.

We have in the lexicon an abstract element MANNER that acts as if it were a predicate and, as such a predicate, it selects two arguments (variables) or conceptual constituents. First, it requires X by means of being an inalienable possession element; X is then the possessor. The second argument, Y, must be a proposition. MANNER will be the head of an LCS, we outline it in (25):

(25) LCS: MANNER Y X

The X variable will be saturated by the conceptual category *thing* and it will be a *thing* able to be a possessor, that is *Joan, Pere, Maria ...* On the other hand, lexical subordination will place the LCS of a verbal root under MANNER intending to fill the propositional variable Y. This gives rise to the complex LCS presented in (6) and repeated in (26):

(26) LCS: MANNER [X V] X

Nevertheless, the structure in (25) can explain some syntactic facts that we have observed in previous sections. The verb's LCS subordinated has the shape of a verb with a unic argument. The choice is not trivial. In section 1, we suggested

that, in Catalan, the formation of nominal infinitives undergoes several restrictions. One of the restrictions is that only intransitive verbs allow this kind of constructions, though transitive verbs in absolutive use are also admitted. That means that only verbs with one argument will be able to be placed under the LCS of MANNER, and this is what we tried to reflect. We can explain the phenomenon if we appeal to selectional semantic properties of MANNER. Without studying it in depth, we will say that MANNER selects propositions with the characteristic of being unbounded processes.⁹

To the special selectional semantic properties of MANNER, we will also attribute the fact that the two variables in the complex LCS are identical. This is not odd since it is well known that some verbs require coreference between the subject of the main sentence and the subject of the embedded clause and it is also attributed to the selectional semantic properties. However, coreference is a phenomenon at the syntactic level and, here, we are facing an identity at the lexical conceptual level.

Accepting that (26) is the LCS of nominal infinitives, it is time now to face how this LCS affects the syntactic level. As we said above, an AS is projected from an LCS. Each variable of the LCS must be related to an argument into the AS. Nevertheless, this relationship is not one to one. We advanced in section 2 that two identical variables in the LCS will be projected into one single argument at the AS. In (27), we exemplify how the AS is contained in a lexical entry. Remember that an assumption like this gives an account of the intuitive double nature of the complement, the possessor and the external argument of the verbal root.

- (27) *caminar* (N) LCS: MANNER
walkN
- AS:

[X *caminar*]
X

X

3.2. The Morphological Process

We have spent the main part of the paper to explain the semantic structure of the nominal infinitive phrases. Although this, in the first section we had also advanced the existence of a morphological process in the nominal generation of the infinitives. The hypothesis and the structure given in (4), repeated here under (28), are not new.¹⁰

9. An unbounded process is a process that express activities that take place during an indefinite length of time. In this sense, following Tenny (1992), unbounded processes will not admit elements that measure out or delimit the event. These elements are adjuncts but also internal arguments. Then, if a verb must express an unbounded process, it will be an intransitive verb, neither transitive nor unaccusative.

10. There are many studies that face the nominal or the verbal status of an infinitive or a gerund placed under a DP. For the hypothesis that claims the existence of a nominalizing morpheme *-r/-ing*, see Lees (1960), Hernanz (1982) or Asher (1990) among others.

- (28) [X_v] → [[X_v] -r_N]

Here, we briefly give some evidence that support it and we suggest that, maybe, the morphological process and the semantic process are not independent in this case. First of all, we notice that (4) involves the existence of two morphemes *-r*: the former an inflectional morpheme, the latest a derivational one. One argument in favour of the two morphemes comes from the analogy of other cases. First, two homophonous morphemes have been also postulated for verbal participles and adjective participles in Romance languages. It has been claimed that there exists an adjectivising morpheme besides the inflectional one. On the other hand, in languages like English the constructions able to express manner are not built by means of the infinitive but the gerundive. This suggests that being a nominal expressing manner is not intimately related to the fact of being an infinitive.

Until now, we have explained the morphological and the semantic processes as two independent processes. It is time now to relate the two. At the beginning of the paper, we advanced that they were two faces of the same phenomenon. Here, we claim that the morpheme *-r* and an LCS with MANNER as a head, that one in (25), are interdependent. The question that comes to mind is: can a morpheme bear an LCS of this type?

In other languages, we find nominals expressing manner by means of a morpheme not related to an inflectional one. In Turkish, there is a morpheme *-is-* that is added to the verbal root to give rise nouns expressing manner. See (29):

- (29) a. görüs
way of seeing
b. yürüyüş
way of walking

Basque is a language with a similar case. According to the Basque grammars, *-(k)era* is a nominalising suffix that is added to verbal roots to produce nominals with a manner or action reading. However, Azkue (1923) noted that, the form *-kera* is the suffix used to create manner nominals and the form *-era* is reserved to constructions with the *act of V-ing* meaning; examples in (30):

- (30) a. yaera
act of eating
a'. yakera
way of eating
b. ibilera
act of walking
b'. ibilkera
way of walking

Languages like Turkish or Basque show that the manner value is linked to a specific morpheme. Following this way, we can assume that in Catalan and other

Romance languages this morpheme is *-r*. This suffix has two functions: the first one is the morphological function of converting the verbal root into a nominal infinitive; the second one is to bring the manner meaning to the new word. We can hypothesize, then, that the conceptual value MANNER is linked to a morpheme or, in other words, that the nominalising suffix carries with its own LCS. Furthermore, this means that MANNER is the head of the resultant LCS just in the same way as *-r* is the morphological head of the derived word.

4. Remaining Points and Conclusions

We have assumed that the manner reading of nominal infinitive constructions in Catalan is due to a process with two faces. One of them turns a verbal root into a noun, a nominal infinitive; the other subordinates the LCS of the verbal root to a lexical conceptual element MANNER, creating the new meaning. They are two inseparable steps of the same phenomenon.

Assuming that MANNER is related to the morpheme *-r*, we save two points. On one hand, we avoid to say that MANNER is a lexical conceptual element floating in the lexicon, as we could deduce from the point 3.1. On the other, we explain why the manner value appears in our constructions.

Furthermore, appealing to LCSs we give an answer to the question presented in the introduction: how do the phrases express manner if none element is visibly related to a manner item? Without making reference to the LCS, the presence of the manner meaning in our constructions would be hardly explained.

Nevertheless, some problems still remain. We wonder which relationship holds between the noun *manera* lexically expressed and the lexical conceptual value MANNER. Although their similarity, we must say that the noun *manera* does not present so many restrictions with regard to the kind of verb that can act as its complement. The result is that manner lexically expressed has more possibilities.

Another remaining question is the status of the argument X in the AS of (27). X belongs to the AS of the nominal infinitive at syntax. However, which kind of argument is it? Is it an external argument or an internal argument? Can we say that it is just an argument? We should think over it longer.

Nevertheless, this is a working paper and many questions come to mind; so, all comments, questions and answers are welcome.

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