1ST QUALIFYING PAPER

THE SPANISH CAUSATIVE CONSTRUCTION '*HACER*-INFINITIVE'.

A ROLE AND REFERENCE GRAMMAR DESCRIPTION

DIRECTOR: DR. ROBERT D. VAN VALIN, JR.

LUIS A. PARIS

University at Buffalo

Buffalo, February 1999

INDEX

Acknowledgements ii

Part I

0. Presentation *1*
1. Brief review of previous literature *9*

Part II

0. Introduction *29*
1. Different forms for expressing causation in Spanish *30*
2. The 'hacer-infinitive' construction *34*
   A. Comparison between 'hacer-infinitive' and other 'finite verb-infinitive' structures *38*
   B. The 'hacer-inf' construction as a nuclear cosubordinate structure *50*
   C. The 'hacer-inf' Construction as a core coordinate structure *62*
   D. Semantic observations *68*
   E. The status of the 'hacer-DAT' form *73*

References *78*

Acknowledgements

First I would like to thank my director, R. D. Van Valin, Jr., for his constant assistance and guidance. My understanding of the matters discussed in this paper would be much poorer without the countless hours of discussions that he shared with me. His influence on the proposal I present here is manifest since it is grounded on the description of the syntax-semantic interface he developed.

I am deeply grateful to J.P. Koenig, whose ideas, criticisms and suggestions have greatly helped me to elaborate the description I present here. I have also benefited from discussing different aspects of the subject with David Zubin and Len Talmy. Marcello De Martino read and made comments on this paper. Needless to say that none of the above mentioned bear any responsibility for the shortcomings in this thesis.

It has been a pleasure to work in the intellectually motivating atmosphere offered by the Linguistics department and the Cognitive Science Center of the University at Buffalo. It has been particularly important to me the camaraderie shown by the entire faculty and my fellow students.

I will be forever thankful to Fulbright-LASPAU and the University at Buffalo, which supported my studies throughout the Master program. I am also grateful to the hospitality and kindness of the Buffalo community and the American people that have made us feel at home.

The encouragement from my colleagues and friends of the 'Unidad de Lingüística', Cricyt-Mendoza, Víctor Castel, Ester Car and Daniel Rossi, has been always meaningful to me. Special thanks to my family: Ana María, Jorge y Chicha. Finally, I could not have worked on this project without the love and immense effort of my wife Ana, and my daughters Julia and Laura.

Section I

0. Presentation

This paper presents a description of the (Argentinean) Spanish '*hacer*-infinitive' causative construction in the theoretical framework of Role and Reference Grammar (Van Valin & LaPolla (1997)). This construction, constituted by the causative verb *hacer* 'make' and an infinitive complement, challenges very basic assumptions of grammatical theories. It is commonly accepted that predicates satisfy their lexical requirements –i.e. filling in of the argument positions- in a local syntactic environment (e.g. the CORE in Role and Reference Grammar (RRG)). Moreover, it is understood that this local environment is syntactically sensitive only to the requirements of such a predicate. According to those assumptions and since the Spanish causative construction has two predicates, it must be linked to a syntactic structure with two local syntactic domains corresponding to each predicate respectively –namely, the causative verb and the infinitive verb-. However, this situation does not hold for the infinitive complement. The morphosyntactic realization of its arguments is strongly determined by the causative verb operating in the otherwise local syntactic domain of its infinitive complement. In particular, the Actor of the infinitive complement -which would have been linked to the subject position and marked by nominative case- can be alternatively expressed by an accusative or a dative noun phrase or even by a prepositional phrase.

The alternative cases of the Actor of the infinitive verb (or causee) can not be derived solely from the presence of the causative verb per se since the transitivity of the infinitive also affects the coding of the Actor. Specifically, if the complement is transitive the Actor is expressed by an accusative noun phrase; if it is intransitive the Actor would be a dative noun phrase. This paper asserts that those alternative syntactic realizations of the causee can only be explained if the two predicates are assumed to form a single syntactic unit with a single local syntactic environment. In RRG terms, the two predicates do not constitute a two-core structure but rather two nuclei linked to the same single core.

The properties of the Spanish causative construction strongly challenge purely configurational descriptions like transformational syntax. A number of the basic assumptions made by this theory conspire against reaching a satisfactory account. First, it is assumed that lexical items subcategorize for phrasal categories rather than lexical ones; this makes not possible for two verbs to constitute a single predicate. Second, it is proposed -assuming the 'Katz-Postal hypothesis'- that the deep structure of a causative construction needs to be bi-clausal due to the fact that causation is a relation between two events. Third and most importantly, a configurational theory of case assignment -according to which each predicate has a fix set of structural Cases that are assigned to exactly one and the same syntactic position respectively- contradicts the following facts presented by the causative construction:

'i' in transformational terms, the same verb (i.e. *hacer* 'make') assigns Accusative or Dative Case to the same argument.

'ii' the same syntactic position –namely, the direct object of the main verb- receives two different Cases.

Under those assumptions, the description of the construction requires the derivation of a mono-clausal surface structure -or, in more general terms, of a local environment common to both predicates- from a bi-clausal deep structure. As a result, the local relation between the arguments of the infinitive verb and the causative verb can be accounted for. This is the theoretical background that underlies different proposals in the transformational tradition (e.g. 'predicate raising' (Kayne, 1975); 'clause union' (Aissen and Perlmutter, 1983); 'Extended Governing Category' (Bordelois, 1988)). However, we show clearly that no transformation from a bi-clausal deep structure to a mono-clausal surface structure explain the alternative accusative or dative cases of the causee.

The proposal presented in this paper derives the variable case of the causee from the general structure of the grammar. Framed in the Role and Reference Grammar (RRG), this approach captures all the properties of the causative construction by deriving them from general patterns of predicate combinations (i.e. nuclear and core junctures) and general patterns relating syntactic and semantic structures. More precisely, the variable case of the causee is naturally captured by a

theory that tights case marking to the linking process rather than assuming it to be configurationally determined.

The following paragraphs are devoted to present the basic properties of RRG; but let us just mention here that the variable case of the causee is an instance of the regular manner in which morphosyntactic features relate to syntax and semantics. Case markers are determined by the linking rules governing the syntax-semantics interface. This interface is assumed to be systematic, but, crucially, it does not involve 'constant one-to-one relations' from semantic arguments to syntactic positions. Rather, the mapping of a semantic argument of a predicate depends on the semantic properties of the other arguments that need also to be mapped into syntactic structure and, consequently, the morphosyntactic properties of this argument –i.e. case- will also vary concomitantly. This variable syntax-semantic interface is formally captured by **linking rules operating on list of arguments *hierarchically* organized.**

RRG recognizes the role of semantics in grammatical description and assigns to semantic representation an independent status. Contrary to the view of semantic representations in the transformational tradition, Logical Structures (LSs) are neither syntactic nor syntactically motivated representations, but just pure semantic descriptions of lexical concepts. The relation between Logical Structures and syntactic structures is not a syntactic derivation, but a theory of linking. The layered structure of the clause contains –as part of the Universal Grammar- a syntactic level -the NUCLEUS- at which lexical elements can be syntactically combined previous to the satisfaction of their LSs . The next layered is the CORE, the syntactic domain in which the semantic arguments of the predicate are mapped into syntactic structure. The PERIPHERY is a sort of appendix to the CORE containing all the arguments that are not required by the predicate (i.e. adjuncts). The CLAUSE is the domain containing the CORE and the syntactic positions (Pre and Post Core Slot) for elements that do not add information to the lexical meaning of the predicate.

The fundamental insight of RRG linking theory is that the mapping from semantics to syntax is 'structural' rather than 'atomic'; in other words, the linking is 'context sensitive'. This means that arguments are mapped not only according to their own semantic function, but in relation

to all the thematic roles visible at a specific syntactic domain (the CORE) of the predicate.[1] The arguments of an LS are ordered in a list according to a semantic hierarchy and they are not linked directly to syntactic positions but to the Actor or Undergoer macroroles. They are generalized thematic relations –so, they have semantic content-, abstractions over thematic relations mediating between the LS and the CORE. Linking is a function that operates on variable domains (i.e. the particular set of thematic roles of a specific predicate at the core level) and macroroles are concepts that neutralize semantic differences among thematic roles.

The possibility of syntactically combining two predicates at a nuclear level –before their arguments are linked to syntactic structures- allows us to captures the fundamental properties of the causative construction: the causative and the infinitive verb constitute a single predicate for purposes of linking. It is shown in this paper that the nuclear juncture explains the local relation between the arguments of the infinitive complement and the main verb demonstrated by the behavior of the causative construction in reflexivization, passivization and clitic placements.

In particular, the variable case of the causee –the Actor of the infinitive verb- derives from the fact that the two predicates are joined at a nuclear level and, consequently, their arguments are mapped into macroroles in a single operation at the core level. If the infinitive verb is transitive, its Actor –i.e. the causee- is not projected to the Actor position due to the presence of a non-causally affected Effector in the same core, which ranks higher for such macrorole. It cannot be either the Undergoer due to the presence of the second argument of the infinitive ranking the lowest in the Macrorole hierarchy. Consequently, it can be realized either as a non-macrorole core argument (‘*hacer*-DAT) or as a non-core argument (‘*hacer*-POR’). In turn, if the infinitive verb is intransitive, its single argument does not qualify as an Actor due to the presence of a non-affected Effector; thus, it has to be projected to Undergoer, the only available Macrorole.

A central property of our description is the acknowledgement of semantic distinctions among the different subtypes of the causative construction. Most of the previous syntactic

[1] Other theories of mapping like LFG, even if not configurational, assume that the assignment of syntactic function is entirely determined at the lexicon. The processes that change the grammatical function of an argument can be done at a syntactic level. Consequently, the combination between the two verbs in a causative construction has to be lexical. On the contrary, mapping in RRG is constrained by both the lexicon and syntax.

descriptions of Romance causatives (but Alsina (1992), for example) assume that those subtypes have exactly the same meaning; this idea underlies every approach that relates those subtypes via transformations given that they are 'meaning preserving operations'. On the contrary, we proposed three subtypes of the '*hacer*-infinitive' construction whose semantic differences are reflected by their different junctures and morphosyntactic markers (i.e. the case of the causee): '*hacer*-POR', '*hacer*-DAT' and '*hacer*-ACC'. Regarding the semantic aspect of these constructions, I propose that each of these forms involves the same basic notion of causation as represented by the primitive CAUSE; consequently, all of them have the same basic Logical Structure.[2] Their differences lie in the modulation of one semantic parameter: the degree of affectation of the Causee, the participant that immediately follows the Agent in the causal chain.[3] The concept of affectation is captured by the 'force-dynamic' notion of 'resistance' (Talmy (1988)); the non-affected causee does not show resistance to being causally affected (i.e. '*hacer*-POR'), whereas the affected causee does resist the action of the causer (i.e the '*hacer*-DAT' form). The resistance of the causee is overwhelmed –according to the meaning of '*hacer*', which is an implicative causative verb-, and this fact is consistent with the higher degree of affectation that is attributed to it in this construction.

All the subtypes of the causative construction have the same basic logical structure; in this way, our description captures the fact that the causee is always a causally affected participant. In turn, the possibility of conceiving the causee as resisting or not is co-related with its alternative mapping to the Actor macrorole: a resisting causee does not map into Actor ('*hacer*-DAT'), whereas a non-resisting causee does ('*hacer*-POR'). Viewing Macroroles as concepts possessing semantic content makes possible to capture the semantic difference between those two constructions while keeping the logical structures constant. In other words, the thematic roles of

[2] All of these forms refer to a relation between two states of affairs, in which one of them –the one temporally prior- acts as a sufficient condition for the other. This would be an approximation to the basic meaning of CAUSE.

[3] It can be defined also as the participant directly affected by the action of the Agent of the causative verb. This is a purely semantic definition of the Causee. There is a causal chain and the participant who is affected first and directly by the Effector of *hacer* 'make' is defined as the Causee. Alsina (1992) presents a 'constructional' notion of the causee: it is not the directly affected participant but the one that is realized as the affected argument of the predicate CAUSE. In the next section, I will explain why I do not adopt this terminology and, indeed, it is not obvious if Alsina (1996) still maintains the same hypothesis.

the arguments are identical in both constructions; the distinctions are captured by the different mapping to Macroroles.

In turn, the affectation of the causee is the central aspect of the meaning of the '*hacer*-ACC' construction: in this construction the causee is also an argument of the causative verb. The fact that the causative verb imposes selectional restrictions on the causee only in the '*hacer*-ACC' form demonstrates its status as a semantic argument; the behavior of '*hacer*-ACC' in passivization, clitic placement, and reflexivization, shows that the NP expressing the causee is also one of its syntactic argument.

In consequence, I propose that the causative verb has two different lexical entries. In one entry the causee receives a thematic role from the causative predicate (from this entry is projected the '*hacer*-ACC' form). In the other lexical entry the causee receives thematic role only from the infinitive verb; the fact that is not projected to Actor expresses its status of affected participant. The combination of the infinitive with the causative predicate modifies the mapping and interpretation of the causee in the '*hacer*-DAT': it is no longer constructed as the Actor.

The 'hacer-POR' construction presents a different situation. In this construction, the causee is not an affected argument. Semantically, it is conceptualized as if the Logical Structure of the embedded predicate were independent, namely, as Actor. This explains why it is expressed as the object of the preposition *por* 'by', which typically expresses Actors in Spanish.

This conceptual construction of the causee is particularly striking given the fact that, from a pure conceptual perspective, a participant in the middle of a causal chain has to be interpreted as affected provided that it is the Actor of an induced event. It seems that only a linguistic construal could create this notion of a non-affected causee. We express this fact by allowing an exceptional situation in which the causee is projected into Actor at a nuclear level. The presence of two Actors in the same core –situation banned by general linking principles of the theory- provokes the instantiation of the causee outside by a PP in the periphery.

The morphosyntactic structures that correspond to each of the causative subtypes are consistent, and, further, help to construct these different interpretations of the causee. Different

syntactic data show that in the '*hacer*-ACC' construction the causative and the infinitive verb projects their own independent cores which join themselves projecting a single clause. As a core argument of the causative verb, the causee is projected onto the Undergoer macrorole of the core projected from the causative predicate and receives accusative case. The evidence comes from the behavior of the construction in the following syntactic context:

i) passivization (the causee can be the subject of a passivized causative verb whereas the Undergoer of the infinitive can not be promoted);

ii) clitic placement (clitics that express arguments of the infinitive verb can not be attached to the main verb).

iii) anaphorical co-indexation (a reflexive pronoun can be attached to the infinitive verb and be coindexed with the causee).

This evidence indicates the presence of a 'core juncture' with Undergoer control (namely, the Undergoer of the main verb is co-indexed with an argument of the main verb). This structure is consistent with the fact that the causee holds in this construction a thematic role from the causative verb LS.

On the contrary, different syntactic tests indicate that the causative and the infinitive verb combine at a nuclear level and project themselves into a single core in the other two constructions. Both the '*hacer*-DAT' and the '*hacer*-POR' construction show the following behavior:

(i) passivization (they allow the Undergoer of the infinitive verb to be promoted to the subject position of a passivized causative verb whereas the causee can not be promoted to subject).

(ii) clitic placement (clitics expressing arguments of the infinitive verb either are required ('*hacer*-DAT') or are preferred ('*hacer*-POR') to be attached to the causative verb).

(iii) anaphorical co-indexation (a reflexive pronoun can not be co-indexed with the causee, but it has to be co-indexed with the Actor of the causative predicate in the case of '*hacer*-POR').

The circumstance that both predicates are joined by a nuclear juncture accounts for the fact that for most grammatical processes they act as a single predicate. In particular, the arguments of both predicates are mapped into the macroroles of a single core at linking as if they belong to a single predicate.

The fact that the difference can be described in the linking corroborates that this process is a syntactic one. Otherwise, the combination would involve a change in the LS of the infinitive verb with the consequent change in its meaning. This change would demand for a description at a morphological level to the extent that a modification in a word meaning is involved (morphological descriptions were proposed in Alsina (1992) and Zubizarreta (1985)). On the contrary, our syntactic account reflects the intuition that the embedded verb is the same word before and after entering into the causative construction; the causative predicate does not operate, then, in the internal structure of the embedded LS. Consequently, the description of this construction should be different from those that do trigger operations in the internal constitution of an LS, like the reflexive clitic *se* -which is a purely morphological process, as we argue in Part II-.

1. Brief review of previous literature

One of the seminal papers addressing the '*hacer*-infinitive' construction has been Aissen and Perlmutter (1983). The paper presents a Relational Grammar proposal that describes the syntactic structure underlying a finite-infinitive verb combination in Spanish. The combination finite-infinitive verb had been traditionally interpreted as a bi-clausal structure in which the finite verb acts as a head. The central thesis of Aissen and Perlmutter is that the set of verbs that combine with an infinitive verb contains a subclass whose members trigger 'Clause Reduction'. Clause Reduction is characterized as the process by which the dependents of an embedded verb become dependents of the matrix verb. In particular, the structure corresponding to the causative construction is a specific case of Clause Reduction, named Clause Union, whose characteristic is that the grammatical relation '1' (i.e. 'subject of') of the embedded predicate turns into '3' (i.e. 'indirect object of') of the main predicate. Such a process is defined as follows:

a. If the complement is intransitive, the 1 of the complement verb becomes the 2 of the matrix verb.

b. If the complement is transitive, the 2 of the complement verb becomes the 2 of the matrix verb and the 1 of the complement verb becomes the 3 of the matrix verb. Aissen and Perlmutter (1983), p. 379

Among the trigger verbs we find *querer* 'want', *soler* 'tend' and *hacer* 'make'; these items represent verb classes that were characterized as 'Equi-verbs' and Subject-to-Subject Raising verbs. Conversely, non-trigger verbs are *insistir en* 'insist on', *soñar con* 'dream of' and *parecer* 'seem'. Aissen and Perlmutter claim that by positing Clause Reduction they have captured a significant linguistic generalization: they are able to describe a number of phenomena related to trigger verbs with a single rule. Otherwise, each of those phenomena would require a specific rule. In the sentence below, the accusative pronominal clitic *las* 'them' cliticizes to the main verb while expressing a dependent of the embedded verb (example '12' in the original paper).

(1) Luis las quiere comer.
Luis them wants eat

'Luis wants to eat them'

In Spanish, pronominal clitics are attached to the verb of which they express an argument. Those pronominal forms are enclitics in the case of infinitive verbs but they are proclitics in the case of finite verbs. In order to describe the example above a particular rule, named 'Clitic Climbing', was proposed. On the contrary, Clause Reduction would predict that *las* above can be a proclitic of the matrix verb or an enclitic of the infinitive verb because the embedded dependents are also dependents of the matrix predicate. Moreover, Clause Reduction describes successfully other apparently unrelated phenomena. For example, the interaction of 'object raising' predicates like *fácil* 'easy' or *difícil* 'difficult' and trigger verbs is also easily described by assuming the Clause Reduction hypothesis.

(2) Los mapas serán difíciles de empezar a hacer. (example '61' in the original paper)
The maps will.be difficult-PL of begin to make.

'The maps will be difficult to begin to make'

The 'object raising' predicates allows the 2 of the embedded verb advance to 1. The example above shows that the 2 of *hacer* 'make' can advance to 1 of the main predicate even if it is the complement of an intervening verb (i.e. *empezar* 'begin'). By positing the dependents of the embedded verb as dependents of the main verb too, Clause Reduction is able to describe the

example above. In sum, this paper shows that 'clitic climbing' is a consequence of a deeper phenomenon: the presence of a mono-clausal structure in some finite-infinitive verb combinations.

There are important differences between the description above and the one we present here. First, that paper involves a pure syntactic consideration of the facts without of the factors driving the grouping of the verbs in such a particular form. On the contrary, we looked for semantic factors motivating the syntactic structure in which the verb forms combine. The Interclausal Relational Hierarchy (IRH) (Van Valin & LaPolla (1997)) predicts that those different syntactic structures underlying the verb-to-verb combinations correspond to different semantic relations respectively.

Second, the verbs listed as trigger verbs do not constitute a homogenous class. There are different structures associated with causative verbs (*hacer* 'make' or *forzar* 'force') and psychological verb (*querer* 'want') that go beyond the realization of the embedded 1 as 3 of the main verb or not. Further, the causative construction constitutes indeed three different forms involving, in turn, two different syntactic structures (Aissen and Perlmutter presents only one causative construction).

Third, Clause Reduction does not capture the syntactic role of the embedded verb; basically, it stays in the same complement position while its arguments move. On the contrary, the embedded and the main verb constitute a complex predicate according to my analysis.

1.2 Alsina (1992, 1996)

Alsina's article 'On the Argument Structure of Causatives' (Alsina (1992)) is particularly relevant for us because it is centered on the idea that the different syntactic constructions associated with causative morphemes are motivated by semantic differences. The aim of the article is the description of the the fundamental typological property of causative morphemes in different languages as pointed out originally in Comrie (1976). This typology indicates that causative constructions are expressed in two different syntactic patterns depending on the realization of the causee: either the causee is expressed by a core syntactic argument or by an adjunct.

In particular, it is proposed that the semantic representation below is the nucleus of the causative construction:

(3) Caused Event

CAUSE (Agent Patient PRED (…θ…))

This semantic representation corresponds to the description of the causative morpheme in the lexicon; in other words, it is its lexical entry. The representation states that the primitive predicate CAUSE is a three-place predicate whose arguments are an Agent, a Patient and an Event, which is precisely the effect caused by the Agent. The causative morpheme assigns thematic role to all its arguments; namely, the Agent or Causer, the Patient or Causee and the Event or Effect. The Causee is related to an argument of the Effect (i.e. 'θ') as indicated by the line joining both arguments. The nature of this association is the central innovation presented in this paper and deserves a closer attention. First, according to the representation above, there is a participant of the situation that receives two thematic roles from different predicates. The causative morpheme assigns the thematic role Agent to this argument via the primitive CAUSE and the embedded verb assigns also a thematic role to this same argument (possibly, a different one). Alsina calls this situation 'fusion' and states that it is understood along the lines of 'argument binding' as proposed by Jackendoff (1990). Second, this relation between arguments is variable in the sense that it is not possible to predict which specific argument of the embedded verb will be associated with the causee. Therefore, (3) captures the semantics of causation because it expresses that '… the causer (or agent) acts on an individual, the patient, in bringing about an event, of which this individual is itself an argument…' (page 521). Causation is, then, interpreted as a relation between two individuals resulting in an Event. Further, the variable binding of arguments motivates the basic two possible realizations of causative constructions across languages. If the causee is linked to the Agent of the embedded transitive verb, then it will be expressed as a core syntactic argument of the causative construction. On the contrary, if the causee is linked to the Patient of the embedded Event, the Agent of this verb will be expressed in the syntactic periphery of the construction as an adjunct. The mapping to syntax of the semantic representation is done under the standard assumptions in Lexical Functional Grammar (LFG) (Bresnan and Kanerva (1989)). The construction is described as the combination of

the argument structures of two predicates at a lexical level because LFG prohibits relation-changing operation at a syntactic level. These two predicates form a unique argument structure that is projected into syntax via a *single application* of the standar LFG mapping principles; crucially, then, the two predicates compose a single predicate (PRED) so that the mapping principles act on a single argument structure.

Alsina's description differs from our approach in a number of ways. First, it posits as the basic representation of causation a subtype of this concept. According to (3), it involves an individual (i.e. causer) acting on another individual (i.e. causee) causing an Event.[4] On the contrary, we assume that causation is a relation between two State of Affairs and that (3) represents a subtype of it which, indeed, is not expressed by all causative constructions in Spanish. [5] The proper representation could be the following: '[α] CAUSE [β]'; where 'α' and 'β' represent in principle any state of affairs. From this semantic definition of causation, languages construct different subtypes. It is not a necessary requirement of causation in general that the causer 'acts on' the causee. For example in the following sentence:

(4) Juan lo hizo matar a Pedro.
Juan him made kill to Pedro.

'Juan had Pedro killed'

The Agent of the infinitive verb is not the Causee (according to Alsina's proposal), so that the representation in (3) will assume that the Causer acted on '*Pedro*'. His assumption would also constrain us to have a different semantic representation for periphrastic causatives:

(5) a. Juan hizo que María matara a Pedro.
Juan made that María killed-SUBJ to Pedro.

Juan made Maria killed Pedro.

The verb *hacer* 'make' is combined with a sentential complement and there is no syntactic or semantic evidence in this case to support a representation in which one of the arguments of the embedded verb is a foregrounded Causee, as assumed in (3).

[4] Alsina's formalism does not capture what he is stating in the prose. The representation presented above has a predicate CAUSE with three arguments: it does not make clear between which arguments the relation holds.

[5] It is usually assumed that causation is a category that specifies a relation between two events. It is not ontologically proper to relate an individual and an Event via a causative relation: it is a particular state or activity of this individual that causes an Event.

We have also concerns regarding the syntactic representation in this description. In Alsina (1996), it is said that the composition of the two predicates alluded above has to be syntactic because both verbs behave as independent syntactic units with respect to different tests (coordination, nominalization, reflexivization). Every combinatory operation is described in LFG in terms of 'unification' and the problem here is that two PRED can not unify. A new operation has to be proposed to account for causatives -namely, 'predicate composition'- which is able to describe the fact that two predicates are transferring information to the same mother node. The trigger of this operation is the presence of an incomplete predicate (indicated by 'P*' in an argument structure) which in this case is the causative one.

It is clear that causatives are treated as exceptional constructions in Alsina's account. First, they involve operations on lexical structures that are not morphological but syntactic. Second, the trigger of such operation is a stipulated symbol. Third, it is proposed that the embedded predicate is the lexical head of a VP dominated by the VP projected from the main verb (p. 202). Certainly, such a structure does not constitute a mono-clausal analysis; the embedded object is immediately dominated by the infinitive verb, but not by the main verb. This asymmetry precludes interpreting the analysis as 'monoclausal'; consequently, then, it presents the construction as containing a syntax-semantic mismatch (a single argument structure into two syntactic clauses). The author seems to assume that a monoclausal analysis is based on the absence of the subject position –which he extensively proves- for the structure associated with the infinitive verb. That is, the lack of subject shows that the infinitive is not associated with an S node, but it is just a VP or, in traditional terms, a 'reduced clause'. From our perspective, the behavior of the construction under passivization, reflexivization and cliticization shows clearly that relation between the embedded Undergoer and the infinitive verb is the same than the one that holds between this Undergoer and the main verb.[6]

[6] It could be the case that LFG does not admit syntactic combination described in terms of two lexical categories. Only phrases –VP, NP, PP- but not lexical categories would be able to combine with a head. In this case, Romance causatives should be taken as evidence against such an assumption.

The analysis that we offer below represents causatives as regular grammatical constructions. First, our representation assumes that the core semantic information is represented in the Logical Structure. At this level, the nuclear causative constructions are synonymous; they differ, though, in the way their respective LSs are mapped into syntactic structures, an operation that in RRG involves the previous mapping to Macroroles: only the '*hacer*-POR' construction allows the causee to appear as (non-core) Actor. In this way we capture the semantic difference at the same time while maintaining that they have the same lexical meaning. Intuitively, the embedded verb is the same word acting as the head of its clause or embedded in a causative construction; the combination of the infinitive with the causative verb needs not be described in the Lexicon because the LS of the infinitive has not changed. The *hacer* LS has an argument position that need to be filled by a state of affairs; the Interclausal Relational Hierarchy (IRS) predicts the syntactic structure that will express the semantic relation referred to by the CAUSE predicate in the LS of the main verb. Moreover, the layered structure of the clause in RRG contains a syntactic level, the Nucleus that allows us to describe naturally the combination of two predicates that act as a single unit in some respects and as independent units in other contexts.

Finally, it is not clear that Alsina's representation is able to describe the three forms of the Spanish causative construction. In part II of this paper, we will present data that show that there are three possible ways of expressing the Causee in cases where the infinitive verb is transitive. It could be expressed by an Accusative NP, or by a Dative NP, or by a prepositional phrase.

(6) a. María lo hizo a Pedro limpiar el auto.
María him-ACC made to Pedro clean the car

'María made Pedro clean the car'

b. María le hizo limpiar el auto a Pedro.
María him-DAT made clean the car to Pedro

'María made Pedro clean the car'

c. María hizo limpiar el auto por Pedro.
María made clean the car by Pedro

'María had the car cleaned by Pedro'

The representation offered in (3) and the mapping rules that operate on it do not offer an alternative to represent the syntactic and semantic differences between the sentences in 'a' on one side, and 'b' on the other. In both sentences the Causee is associated with the Agent of the infinitive verb so that the difference in its realization cannot be attributed to the 'fusion' with different embedded arguments. We will present conclusive evidence showing that 'a' and 'b' involve different syntactic structures and different semantic representations. Indeed, we claim that the relation Causer-Causee is foregrounded in the case of 'a' and this fact is reflected in the semantic representation by assuming that the primitive CAUSE assigns a thematic role to the causee. This representation is similar to (3) in the sense that the causative morpheme has the Causee as an independent argument. It is a problem, then, to characterize the other two forms in terms of (3) as well as capturing the difference among them.

1.3 Zubizarreta (1985)

A different analysis of the Romance Causative Construction in the Government and Binding framework is presented in Zubizarreta (1985). It does not make any reference to the semantic aspects of the construction. The basic statement of the proposal is that the Causative Constructions in Spanish and French are simultaneously associated with two different grammatical structures: a morphological and a syntactic frame. In the first case, *hacer* is a bound morpheme that combines with the infinitive verb to produce a syntactic unit, a single word. In the second case, *hacer* is a main verb that subcategorizes for an infinitive complement constituting a biclausal structure. As a bound morpheme, *hacer* is the head of the word, and as such it percolates up all its features to the node Verb, which dominates the word. In this sense, it can control the percolation of features of the infinitive verb by allowing or preventing them to percolate up. This mechanism explains how it deletes, blocks and internalizes the external argument of the infinitive verb producing different structures. The fact that all these processes are morphological in nature provides evidence indicating that *hacer* is indeed a bound morpheme. On the other side, the syntactic structure associated with *hacer* shows a main verb that subcategorizes for a sentential complement (the infinitive verb).

In the description presented in the next part of this paper, it is argued for a purely syntactic analysis of the '*hacer*-infinitive' construction. Indeed, I intend to demonstrate that *hacer* does not trigger morphological process such as deletion, blocking or internalization of the external argument. The evidence below is conclusive for treating *hacer* and the infinitive verb as forming a syntactic structure. In particular, it is claimed in this paper that the nuclear juncture is a structure tight enough as to express the quasi-morphological properties of the construction while describing a series of syntactic processes that take each verb as a syntactic unit. Furthermore, the change in meaning operated in the infinitive verb as a result of its combination with the causative does not qualify as morphological: there is no evidence that it constitute a new lexical item.

1. 4 Bordelois (1988)

The proposal made in Bordelois (1988) is framed entirely in the GB model. The author proposes in that paper that Romance causative involve a 'control' structure; that is, they are combined in a bi-clausal construction. This hypothesis permits the theory to maintain that every verbal predicate projects into a clause. In turn, in order to describe (part of) the monoclausal characteristics displayed by the two verbs, she is compelled to proposed two new concepts:

'i' Spanish allows 'dative control', and

'ii' an 'Extended Governing Category' which allows the causative verbs to 'govern' the internal argument of the infinitive verb even if there is an S node projected from the infinitive verb in between. In essence that concept states that the clause projected from an infinitive complement with a controlled PRO is incorporated to the main clause for the purposes of binding.

Three brief comments about this paper are in order. First, we will present extensive evidence showing that the two verbs constitute a single syntactic unit. Some of it could be described also appealing to the concept of 'Extended Governing Category', but different phenomena related to 'reflexivization' and 'passivization' are puzzling from this perspective. It will be shown below that 'i' the fact that a reflexive pronoun associated with the infinitive verb can be linked to the subject of the main verb, and 'ii' the fact that the object of the infinitive verb can be promoted to subject of the main verb in passives are not accounted for by merely positing an exceptional governing

category. Only the absence of the subject position in the syntactic structure projected from the infinitive verb can explain both facts.

The second comment is extensively discussed in Alsina (1992), who argues that Bordelois' description does not take any semantics into consideration and, consequently, is unable to look at the difference in meaning among the subtypes of Romance causatives. A pure configurational description does not have much to say about how the same syntactic representation –a 'control' structure according to Bordeloise- can express two sentences that are not semantically equivalent.

In one way or another, the literature that we have briefly reviewed is constrained to postulate some new and exceptional mechanism to describe Romance causatives. Their descriptions do not come out naturally from those theoretical frameworks, and, in our view, the artificiality inherent to the representations they offer indicates the inadequacy of the syntactic structures they assumed in the first place.

1.5 Moore (1991)

Moore's dissertation is one of the few works on Spanish causatives that distinguishes the three subtypes of causatives that we also claim in this paper. Those three syntactic patterns are generated from the two lexical entries in 'i' and 'ii':

I. Hacer [__ NP_i IP[Spec of IP_i]]

A bi-clausal structure in which the causative verb is an 'object control verb'

II. Hacer [__ VP]

A. A structure with a reduced clause as a complement in which the causative verb is an ECM (Exceptional Case Marking) verb.

B. A structure with a reduced clause without subject as a complement in which the causative verb is an ECM (Exceptional Case Marking) verb.

The first lexical entry projects the structure underlying the form that we labeled '*hacer*-ACC' whereas 'II.A' corresponds to the '*hacer*-DAT' form and 'II.B' corresponds to the '*hacer*-POR' form. Differences in selectional restrictions prove that there is a fundamental semantic difference that motivates those two lexical entries; namely, the causative verb assigns theta role to the causee

in the control structure (i.e. lexical entry (I)) whereas this is not the case in the ECM construction (i.e lexical entry 9II)).[7] In the ECM structure the causative verb subcategorizes for a reduced clause (i.e. VP); this means that -contra previous GB analysis- the mono-clausal configuration is present at all strata.[8]

A number of assumptions are needed in order to derive structures for sentences like (6b) from the lexical entries above. In particular, the variable case on the causee proves to be a difficult puzzle for purely configurational views of case assignment.

An ECM structure presupposes an exceptional situation in which a matrix verb assigns Case to a non-syntactic argument in a non-governed position. Given the fact the causative verb does not have internal argument, it should assign accusative Case to the embedded subject. However, the case of the causee in Romance causative depends on the properties (i.e. transitivity) of the complement verb; the causee is expressed by an Accusative or a Dative NP depending on an intransitive or transitive infinitive, respectively. This behavior does not derive from the structures proposed above or from any general principle in GB; this requires a number of stipulations on Spanish Case assignment. First, it is stated that each VP can contain one and only one instance of a given Case (page 183). This constraint changes the accusative Case on the causee to dative when the embedded verb already contains an accusative NP. Also, Moore proposes the same structure for the '*hacer*-DAT' form and for the '*hacer*-POR' form; namely, as represented in its lexical entry, the causative verb is an ECM verb that subcategorizes for a reduced clause. There is a fundamental difference, though; only '*hacer*-DAT' contains a reduce clause with a subject position. As Zubizarreta (1985) shows, the possibility of the main subject to bind an anaphor in the embedded verb shows the lack of embedded subject position in the '*hacer*-POR' form.[9] This absence is accounted for by

[7] The causative verb in the control structure imposes selectional restrictions on the causee, whereas this is not the case in the reduced construction. As it will be clear later, we agree which such judgement.

[8] The crucial evidence for this claim comes from passive sentences. In passives the internal argument of the embedded verb is promoted to subject of the main verb. This operation is only possible if the embedded verb does not have a syntactically active subject or, in Moore's words, if it projects a reduced clause. Because passivization is an operation carried out at the DS stratum, the structure should be assumed to be mono-clausal at this stratum.

[9] On the contrary, this binding is not possible with the 'hacer-DAT' form and this is the rationale for positing an embedded subject position blocking the binding between the embedded anaphor and the main subject. However, we will argue that such evidence is not conclusive because there is a general constraint in Spanish (a similar constraint is also present in French (Koenig (1996))) banning the co-occurrence of reflexive and dative arguments in the same clause. Moreover, the fact that the

postulating a process of 'spontaneous internalization of the theta role' (p. 197).[10] Still, a central problem remains unsolved: the main verb, being an ECM verb, contains a Case that has been not discharged (due to the absence of syntactic position). This fact contradicts basic assumptions of the GB model; Moore is forced to stipulate that 'the assignment of structural Case is optional' (p. 198). However, there are some facts that are out of the descriptive range of this proposal. One example is the possibility of promoting the embedded object to main subject in passive sentences.

(7) Los autos se le hicieron lavar a Pedro.
The cars Refl him made-3r.pl wash to Pedro

'Somebody made Pedro wash the cars'

The '*se*-passive' structure expressed in the sentence above shows that the logical object of the embedded verb is promoted to matrix subject (the feature 'plural' in the main verb agrees with *los autos*). The ECM proposal can not account for this behavior; on the contrary, it would predict that the embedded object would move to the subject position of the infinitive verb.

The fundamental difference between our description and Moore's is that the last one assumes no semantic difference between '*hacer*-POR' and '*hacer*-DAT'. The basis for such an assumption is the absence of selectional restrictions imposed on the causee by the causative verb. It is inferred from this fact that the causee is not sensitive to the presence of the causative verb. In our view, though, this only shows that the causee is not a semantic argument of the main verb, but it does not prove the absence of a semantic effect. The change of the morphosyntactic marker and the syntactic function of the Actor of the infinitive verb are systematically related to semantic changes in the semantic elaborations of the causee.[11] From a truth conditional perspective, a participant in the middle of a causal chain is a 'causally affected' participant. We claim that Spanish offers the

---

embedded object can be promoted to main subject if the '*hacer*-DAT' form is passivized, it shows that there is no-embedded subject position either in this form.

[10] Given that the author adopts the 'internal subject hypothesis', it is not clear to me what the meaning of 'internalization of the external theta role' means since the theta role was already assigned internally.

[11] Such statement can be viewed as a derivation of general principles describing the basic architecture of grammar. In particular, RRG proposes that the mapping of semantic representation to syntactic structure is systematic. The causative verb change the basic Spanish pattern because the Actor of the infinitive is the highest ranked argument and, consequently, should be mapped into the Actor macrorole and, then, into subject position.
On the contrary, GB –the framework used by Moore- is not concerned with the syntax-semantic interface in any interesting way; that is, as long as a NP receives a semantic label (which could be 'theta role 1'), it can not receive another one. The specific semantic of the NP does not condition, for example, the syntactic function of such NP nor any aspect of its syntactic behavior.

possibility of ranking the degree of that affectation by selecting (from a paradigm) one subtype of the causative construction. The feature of [+/- RESISTANCE] -used to characterized the behavior of the Antagonist of a 'force dynamics' frame in Talmy (1988)- captures the precise content of the notion 'degree of affectation'. The '*hacer*-POR' form presents the causee categorized as somebody who is causally affected but does not resist:

(8) Juan lo hizo revisar al niño por el médico
Juan him-ACC made check to.the boy by the doctor

'Juan had the boy checked by the doctor'

In this sentence *el médico* is in the middle of the causal chain and, from a truth conditional perspective, is causally affected. However, it is not presented as opposing any resistance to perform the embedded action (in the sense that checking is what doctors are supposed to do). On the contrary, the same situation presented by the '*hacer*-DAT' form entails a resistance from the doctor to perform the checking, resistance that is totally unexpected given the semantic relation between doctors and checkings.

(9) Juan le hizo revisar el niño al médico
Juan him-DAT made check the boy to the doctor

'Juan made the doctor check the boy'

On the contrary, by considering the causative verb as an ECM verb, Moore interprets that the main verb only affect the case marking of the embedded NP subject in the context of an exceptional situation for case assignment (i.e. the main verb does not properly govern the case marked NP).

Finally, Moore's VP complement proposal is subject to the same criticism made to Alsina's VP complement structure; no evidence is given supporting that the infinitive and the following NP have a constituent relationship different from the one that holds between the causative verb and this NP. On the contrary, as argued in Koenig (1996), the evidence calls for a 'flat structure', which is also what the nuclear juncture represents.

1.6 Koenig (1996)

This work offers a description of Romance causatives –in particular, French causatives- in the context of Head Driven Phrase Structure Grammar (HPSG). It is claim in this paper that both subtypes of the '*faire*-infinitive' construction in French -the '*fair*-a' and the '*faire*-par'- constitute

clause union structures. The main characteristics of Koenig's description of clause union can be summarized as follows:

'i' The infinitive verb and its complement constitute a 'flat structure' in which the main verb takes a lexeme (i.e. the infinitive verb) as a complement.

'ii' Clause union consists of the raising of all the arguments of the infinitive to the main verb: a process named 'total raising'. Specifically, the causative verb 'raises' all the arguments subcategorized by the infinitive verb into its own subcategorization list, from where they are syntactically discharged by regular procedures.

'iii' The subject of the infinitive is demoted to adjunct status in the '*faire*-par' before the unification with the causative verb ('downstairs suppresion' hypothesis).

'iv' There is no semantic difference between those constructions; the distinction is rather a matter of 'information structure'. Roughly, the causee is a topical element in the '*fair*-a' construction whereas it is less topical or not topical at all in the '*faire*-par'.

The evidence presented in order to prove the flat constituent structure argued for in 'i' is based on the fact that the infinitive and its complement does not behave as a constituent in a cleft sentence; the same can be hold for Spanish:

(10) a. *Lo que Juan le hizo fue lavar el auto.
The that Juan him-DAT made was wash the car

b. Lo que Juan le prometió fue lavar el auto.
The that Juan him-DAT promised was wash the car

'It was to wash the car what Juan promised him'

Sentence (a) is ungrammatical due to the fact that *lavar el auto* 'wash the car', not being a constituent, cannot stand by itself. On the other side, (b) shows –against what is claimed by Moore (1991)- that VPs in Spanish can be dislocated, so that it is an intrinsic property of (a) what is causing its ungrammaticality rather than the general behavior of Spanish VPs.[12]

[12] It should be noticed, though, that (a) is a nuclear juncture but (b) is a core juncture (a 'control' construction). It seems that in Spanish the possibility of clefting infinitival complements is determined by the level of juncture; that is, it is always possible in core junctures and impossible in nuclear junctures. The claim should be qualified, though; it is true only for structures with Actor control, but not for Undergoer control (e.g. '*hacer*-ACC' or *forzar* 'force' among others). Presumably, it is the presence of two accusatives NPs the factor that prevents those constructions from clefting.

The second statement is the central thesis of the approach. The process is labeled 'total raising' in order to differentiate it from classical 'subject-to-subject raisings' and the 'subject-to-object raising' (ECM in GB). It is modeled as a lexeme-to-lexeme construction (thus, no syntactic schema is involved); in particular, the raising construction (i.e. 'gen-cu (raising-lex)') is a node higher up in the hierarchical lexicon than the 'cu-fair' lexical entry. Therefore, this lexical entry inherits the properties specified in the clause union construction.[13] In HPSG, 'raising' is expressed by identifying the arguments of the two verbs in the valence list of the main verb.[14] Most of the phenomena that are exceptional and, in fact, motivate 'clause union' are related to non-local relations among arguments (anaphors) or argument and predicates (case assignment). By positing the embedded arguments in the subcategorization list of the main verb, all the relations among them are reduced to local relations.

The position of the arguments on the subcat list determines the grammatical function that is assigned to each of them.[15] Specifically, a construction establishes that the Distinguished Argument [DA] cannot be direct object. A regular transitive verb would relate the direct object position (and the accusative case) with the remaining argument. The DA would be linked to the subject function (and the nominative case) via the 'subject-predicate' schema at syntax. Dative would be assigned to the non-DA or the non-direct object argument. Consequently, the Dative case of the DA of the infinitive verb requires a separate statement. In the case of '*faire*-par', case assignment is not an issue because the DA of the embedded verb is already 'suppressed' prior to the combination of the verbs (cf. 'downstairs suppression hypothesis' Koenig (1996)). This fact prevents it from being raised. Indeed, it is proposed that '*faire*-par' is not a clause union construction per se, '… but is rather an independent lexeme-to-lexeme construction … a subtype of a more general passive-valence

[13] In this model the lexicon is a complex and highly organized structure that includes not only the traditional lexical items but also constructions. Indeed, the lexicon is an inheritance network in which each sign either inherits information from others or bump information to others. One of the major consequence of this organization is that every sign needs to be minimally specified or, technically, 'underspecified'.

[14] 'Identification' is used in the literal sense: the same morphosyntactic and semantic information of the argument that appears in the subcat list of the embedded verb appears in the subcat of the main verb.

[15] There is no specific claim about case assignment, Koenig suggests (p.c.) that it is parallel to function assignment.

type'. Despite the lack of passive morphology, there is a crucial property that '*faire*-par' and passive share, which is suppression of the DA, which motivates their relation.

The main difference between this proposal and the one we offer is that we claim

the variants of the causative construction are semantically different whereas Koenig proposes that the two French variants differ only pragmatically. The argument for the first position was already presented in order to confront Moore's ECM proposal. Thus, we will focus in testing the pragmatic thesis. If correct, the thesis would predict that an indefinite inanimate causee -typically new participants- would constitute a non-acceptable sentence in the '*hacer*-DAT' form. On the contrary, we would expect the '*hacer*-POR' form to be non-acceptable if the causee is definite and human.

(11) a. El ingeniero le hizo resistir el temblor a una pared de concreto.
The engineer it made resist the tremor to a wall of concrete

'The engineer made a concrete wall resist the tremor'

b. Juan hizo lavar el auto por el chico de la esquina.
Juan made wash the car by the kid of the corner

'Juan had the car washed by the kid in the corner'

Contrary to what was expected, both sentences are acceptable, so that we conclude that the status of the causee regarding information structure seems to be not crucial in Spanish.[16] Rather, (b) entails that no resistance on the part of the causee could have been involved in that situation, which confirms our hypothesis.

From our perspective, a description of the construction in terms of 'raising' would not be satisfactory because the crucial property of raising is that the semantic of the raised arguments is preserved as established by the original predicate.[17] From the RRG perspective, the lexical requirements of a predicate are described in its LS, which will determine the projection of arguments

[16] The evaluation of the '*hacer*-ACC' construction regarding the definiteness is particularly complex because it interacts with the independent requirement for 'definiteness' by 'clitic doubling' in Spanish (Suner (1985)). Given the fact that the clitic is required, it would be impossible to tease apart the factor imposing such constraint. However, we have the strong evidence that shows that the causee is a semantic argument of the causative verb so that the difference of this form with the others is clearly semantic.

(i) *? Juan lo hizo a un nino lavar el auto
Juan him made to a kid wash the car\
'Juan made the kid wash the car'

[17] In this regard, the proposal of 'function composition' advocated in Sag et all. (in press) does not capture itself the change in meaning that we argue operates on the embedded subject.

into Macroroles at linking. The mapping is determined at a lexical level, but is not strictly lexical; it is also constrained by the syntactic environment that acts as the domain of mapping.[18]

These properties enables us with a level of semantic representation (i.e. Macroroles) that is not entirely lexically determined and permits to describe changes in meaning that do not modify the core meaning of a predicate (i.e. its logical structure), and that, consequently, does not involve 'a new word'. Second, the assignment of grammatical functions is lexically underdetermined; in consequence, an argument can be mapped differently depending on the relevant syntactic domain. Therefore, the lexical entry of a predicate can be instantiated syntactically in different ways.

[18] Other theories of mapping like LFG, even if not configurational, suppose that the assignment of syntactic function is entirely determined at the lexicon. Further, any process that change the grammatical function of an argument can be done at a syntactic level. Consequently, the combination between the two verbs in a causative construction has to be lexical. On the contrary, mapping in RRG is constrained by the lexicon and syntax together.

Section II

0. Introduction

This section presents a detailed description of the Spanish causative construction *hacer* 'make' and an infinitive verb ('*hacer*-infinitive' construction). The concept of causality has a pervasive presence in the grammar of different languages. In Spanish it is instantiated at the lexical level determining the meaning and syntax associated with a large set of verbs. The lexicon not only contains those basic items but also derived causative verbs that are the output of a morphological operation. As it will be shown later, these verbs could be derived morphologically from adjectives and nouns by combining them with causative affixes and suffixes. Finally, causality is also present in the Spanish Grammar at a syntactic level; namely, an independent morpheme (*hacer* 'make') carrying the causative meaning combines with an infinitive verb to give rise to the causative construction that we aim to describe in this paper.

Languages may vary regarding the component in which causative constructions can be constituted. There are languages in which causative constructions are composed of a bound morpheme attached to a free morpheme. The causative meaning is carried by the affix and the free morpheme is a content word, typically a verb. Conversely, the causative meaning can be carried by an independent word that combines with a verb to build a construction syntactically. A theory that recognizes morphology as constituting a separate component different from the syntactic one would set these two constructional devices in independent compartments respectively. There is evidence, though, that some constructions built out of independent words may show properties that characterize words, not syntactic structures. They behave like a unique free morpheme in relation to different syntactic processes. Romance Causative Constructions show this type of properties and this is the reason why they have drawn so much attention in the last decades: it is clearly a challenge for a syntactic theory to describe a morphological-like structure.

The plan for this part is as follow. First, the '*hacer*-infinitive' form will be distinguished from lexical causative verbs and morphological (derivational) causative verbs in Spanish. Second, the

distinctive behavior of causative verbs with respect to other 'finite verb / non-finite verb' combinations will be highlighted. Third, it will be proposed that the Spanish causative construction falls into three different syntactic templates. The conflation of *hacer* 'make' with those different templates results in differences in meaning.

1. Different forms for expressing causation in Spanish

The purpose of the following section is to show the specific properties that differentiate causative constructions from other linguistic means to express causation in Spanish. The proper understanding of a construction involves the identification of the distinct functions that it plays in the whole linguistic system. In principle, all the grammatical devices that express causation should involve the same concept of causation, but each of them could have their own specific characteristics that, in the end, would justify their presence in the system. In order to illustrate such differences we present the following sentences associated with their corresponding LSs.

(1) a. Juan mató a María
Juan killed (to) María

'Juan killed María'

a'. [**do'** (Juan, ø] CAUSE [BECOME **dead'** (María)]

b. El chico ensució la ventana con las manos
the child dirtied the window with the hands

'The child dirtied the window with his hands'

b'. [**do'** (chico, ø] CAUSE [BECOME **be'** (ventana, [**dirty'**])[19]

c. María le causó un problema serio a Pedro.
María (him) caused a problem serious to Pedro.

'María caused Pedro a serious problem'

c'. [**do'** (María, ø] CAUSE [BECOME **have'** (Pedro, problem)]

[19] There are two other ways to derive a causative verb from an adjective or noun. Either the suffixes {-iz} or {-ficar} can be attached to an adjective (the condition under which they are chosen are not relevant here). Both cases have the same basic semantic properties as the example 1b presented above.

d. María le hizo limpiar el auto a Pedro.
María (him) made clean the car (to) Pedro.

'María made John clean the car'

d'([**do'** ($María_A$,)] CAUSE (**do'** (Pedro,ø] CAUSE [BECOME **clean'** ($auto_U$)])

All of these four ways of expressing causation in Spanish have rather different semantic and syntactic properties. (1a') is the logical structure that corresponds to the lexical entry of the verb *matar* 'kill' in this sentence context. From a semantic point of view, the concept of causation lexicalized in Spanish verbs seems to be restricted to those LSs whose second member (i.e. 'Effect') has the form 'BECOME/INGR(?) state **pred'** (...)'. A causative verb would not include an Activity or other Causative LS as an Effect.[20] Another important semantic characteristic of these verbs is that they specify the Effect; it is always a distinct predicate rather than a 'generic' state of affairs (as it is generic in most cases the first member of the causal relation). For example, in the case of (1a') the predicate is **dead'**. In other words, the Effect contains an argument which undergoes a predication; it is assigned an individual thematic role (Dowty, 1989), and usually such predication refers to an inherent property of the participant.[21] Regarding the syntactic constraints on those items, the predicate does not take complements other than NPs, which is consistent with the fact that NPs are the typical encoding for state arguments. Specifically, (non-finite) verbs are not allowed within the core projected by the verb nucleus.

The verb form in (1b) derives from the combination of an adjective form and a causative prefix {en-}. Later, a *portmanteau* morpheme expressing tense, person and number has been added to the verb (i.e. {-ó}). The distinctive semantic property of the causative suffix is the following: the effect is also a state, but it can involve only the predicates **be'** or **have'**. In the first case, it corresponds to an 'identificational' state, whereas in the second case, it corresponds to possession.

[20] English seems to have different verbs that do include the form '...CAUSE [BECOME activity pred' (x)]' in their LS such as *walk* (i.e. 'walk the dog') or *march* (VV, pc). The Spanish translation of *walk the dog* involves the use of the verb 'pasear' (*wander*) and it is an activity in 'pasear el perro' (*walk the dog*). Also, 'pasear' (*march)* has only an intransitive version in Spanish.

[21] Possible exceptions to this claim would be verbs like 'hit' which, in contrast, are considered causative but don't seem to require a change of state or condition even though they usually involve it. There is, however, a locative change entailed by the verb. In English, verbs like 'wipe', 'hammer', etc., which contain information that specify Event1, can enter into a second predication construction specifying the effect. *John wiped the table clean* would be ungrammatical in Spanish.

The syntactic constraints are that the direct object must be an NP, which is the first argument of the state predicate.

From a semantic perspective, the verb *causar* 'cause' in (1c') have the following requirement: the effect should involve an 'abstract object' or 'relational object' (i.e. *pena* 'pain', *revolución* 'revolution', *pánico* 'fear', *horror* 'horror'). Such entities refer to the effect resulting from the action performed by the subject of *causar*, which can be the only possible effector of the state of affairs. The causee (that is, the participant affected by the action of the causer) is syntactically optional. If it is expressed, it has to be instantiated by a dative NP as in the example above. The syntactic side of this constraint is that no infinitive verb can appear inside the core of *causar*, just noun phrases.

Finally, the construction involving the verb *hacer* 'make' has its own distinctive features. A comparison of this form to the many other ways of expressing causation in Spanish reveals that the primary difference is that *hacer* has no requirements about a specific state of affairs as Effect. This role can be filled in not only by states (as in the lexical causatives) but most commonly, by Actions, Accomplishments, Achievements or another Causative LS. This semantic property is reflected syntactically by the fact that *hacer* is combined with (infinitive) verbs, which are the typical way of expressing states of affairs. The combination of the LS of *hacer* and the LS of the infinitive verb and the consequent effects on the syntactic realization of these LSs are the topic of this section.

Another way of expressing the idea of causation that is worth mentioning is represented by the combination of *hacer* as a main verb with a finite verb projected into a sentence marked by a complementizer.

(2) María hizo que Pedro limpiara el auto recién el Viernes
María made that Pedro clean-subj the car just the Friday

'María caused that Pedro cleaned the car just on Friday'

[**do'** ($María_A$, ø)] CAUSE [[**do'** ($Pedro_A$, ø)] CAUSE [BECOME **clean'** (car_U)]]

In principle, (1d') and (2) seem to have the same LS, except for one crucial difference. The subindexes indicate a different realization of arguments as Macroroles. In particular, the Actor of the infinitive verb in (1d') is not realized as an Actor whereas in (2) the highest argument of both the

main verb and the infinitive are realized as independent Actors. The presence of *hacer* in (1d') alters the syntactic expression of the infinitive LS; on the contrary, this effect is not found in (2). Semantically, it means that the Actor of the embedded LS is not affected by the *hacer* LS as it is the case in (1d'); it is not conceptualized as an affected argument. The difference ultimately lies in the distinct levels of juncture involved in each example: there are two different clauses in (2) (one being the argument of the other) so that each one has its own independent Macroroles. By contrast, in (1d') both LSs project into one core and consequently the mapping of the embedded LS is affected by the *hacer* LS. This different juncture-nexus type, then, will be presented later as a description that captures all the other differences between both constructions (no shared arguments and different operator projections).

The paragraphs above were intended to show that the different forms of expressing causation in Spanish have, indeed, different semantic properties represented in their respective LSs. The presence of each form is justified because each on has its own function in the system. Each of them instantiates the concept of causation in a particular manner. Also, the different realizations of CAUSE share the same core meaning. As expressed outside the range of lexical or grammatical forms, causation is a vague and indefinite concept that does not respond to the semantic requirements posited above. For example, sentences joined by conjunctions like *porque* 'because' are free from those restrictions. It may refer to causation, but only in specific context; its inherent meaning is a looser relation not coded systematically by grammatical conventions. Also, examples like the one below could be thought of as ways of describing a situation involving causation.

(3) La nieve se derritió al Sol.
the snow itself melted at.the Sun

'The snow melted in the Sun'

However, this conceptualization is the result of an (optional) inference based on world knowledge. From a pure linguistic point of view, (3) does not involve causation by itself. Presumably, there is an indefinite number of ways of expressing causative relations that are not grammatically regulated. They are not the concern of this paper and, strictly speaking, they are not linguistically relevant either.

2. The '*hacer*-infinitive' construction

Each of the forms presented above can be further divided up into more specific representations with further grammatical implications. In this section, different possible variants on the combination of *hacer* and infinitive verbs (as exemplified by (1d) above) will be analyzed in depth.

The '*hacer*-infinitive' combination can appear in different syntactic patterns. For example, if the embedded verb is intransitive the sentence will have the following form:

(4) María lo_i hizo salir (a $Pedro_i$).
María him_i-ACC made go.out (to $Pedro_i$)

'María made Pedro go out'

In this example the Actor of the infinitive verb appears in a postverbal position. This is not the unmarked position for a subject in Spanish, which usually precedes the verb (in particular, if the verb is not a state predicate and this is the case in (4)). Even more surprising is the fact that this Actor is expressed by a NP marked with Accusative case. This is certainly not the unmarked mapping for this type of argument. If the infinitive verb is transitive, the realization of its Actor is particularly variable, as it is shown in the sentences below (which include (1d) as (5b)).

(5) a. María lo hizo a Pedro limpiar el auto.
María him-ACC made to Pedro clean the car

'María made Pedro clean the car'

b. María le hizo limpiar el auto a Pedro.
María him-DAT made clean the car to Pedro

'María made Pedro clean the car'

c. María hizo limpiar el auto por Pedro.
María made clean the car by Pedro

'María had the car cleaned by Pedro'

All the examples in (5) and (4) present 'María' as the Causer or Effector, the participant performing the action that causes the State of Affairs referred to by the non-finite verb. *Pedro* is the Causee, the participant who performed the induced action or, in more traditional terms, the 'logical subject' of the embedded verb. The phenomenon that has drawn so much attention on this construction is

precisely the alternative syntactic realization of the Causee. As can be easily noticed, the Causer retains its syntactic properties throughout all the sentences whereas the Causee shows accusative case in (4) and (5a) and dative case in (5b) and it is the argument of the preposition *por* 'by' in (5c). These variable realizations, which are assumed to be associated with a chain of other syntactic patterns exhibited by those sentences, constitute a challenge for various syntactic theories. It is clear that the syntactic expression of the embedded Logical Structure is altered by its combination with the LS of the causative verb *hacer*. Let us assume that the LS of *limpiar* 'clean' is the following:

(6) a. Pedro limpió el auto.

Pedro cleaned the car

b. (**do'**(Pedro$_A$, ø] CAUSE [BECOME **clean'** (auto$_U$)]

The syntactic expression of (6b), according to the canonical linking pattern in Spanish, would look like (6a). That is, the higher argument in the Actor-Undergoer hierarchy is the argument of **do'**; thus, it qualifies as PSA (or subject in this case) because Spanish is an accusative language. The modification of this linking pattern posits different problems. For example, it could be assumed that the LS of a verb and its syntactic realization should remain as they come specified from the lexicon throughout any syntactic process. As it has been traditionally assumed in GB, the 'projection principle' assures that no syntactic process can alter the lexical requirement of an item. Such assumption would coerce us, then, to view this process of LS modification performed by *hacer* as morphological. But it is clear that *hacer* constitute a free morpheme so that the '*hacer*-infinitive' form does not constitute a word but rather a syntactic complex. For example, *hacer* receives all the inflectional affixes just like any other verb (tense, agreement marker, aspect) and undergoes passivization. Also, it permits interverbal arguments.

(7) a El auto fue hecho limpiar por María.
The car was made clean by María

'The car was made to be cleaned by María'

b. A quién lo hizo Juan limpiar la casa?
To whom him-ACC made Juan clean the house.

'Whom did Juan make clean the house?'

Both facts show that *hacer* is an independent word, and that *hacer* and *limpiar* 'clean' constitute different units for syntactic purposes. It can not be assumed, then, that the combination is the result of a word formation rule. For these theories, then, the challenge has been to describe the morphological-like properties of this construction in syntactic terms. Different solutions have been proposed. Briefly, they involve the simultaneous presence of morphological or marked syntactic constituency and syntactic structures ('feature percolation' and 'control' in Zubizarreta (1985, 1992), 'merge' and 'ECM' in Marantz (1984) and Rosen (1991); clause reduction and ECM in Moore (1991)).

Further, another piece of evidence for a syntactic rather than a morphological treatment of the construction is the fact that Spanish causative affixes are semantically different from *hacer*. As shown in (1b) and (1b'), the causative affix is combined only with the single argument of a state predicate; such argument is, canonically, Undergoer. In this sense, causative affixes derive a verb from an adjective by adding an Actor and a CAUSE predicate to the semantic structure and adding also the corresponding syntactic argument position for it. Notice that these affixes do not change the semantic properties of the argument of the adjective, which remains Undergoer. The lexical representation of the adjective *sucio* 'dirty' would have the following form:

(8) **be'** (x, [**dirty'**])

As can be seen from the comparison between (8) and (1b'), the semantics of the argument remains the same. The difference is the syntactic realization of it; in (8) it is the PSA (the argument that imposes agreement features on the adjective) whereas in (1d') it will be realized as the non-PSA argument due to the presence of an Actor. On the contrary, a closer look at (1d) and (6) above shows that *hacer* does not restrict the semantic structure that can fill in the slot of its second member to states. Consequently, it can change radically the realization of the arguments of the embedded predicate. Specifically, *Pedro*, the argument of **do'**, maps to the Actor macrorole in (6) but not in (1d). This is an important difference between the morphological and the syntactic causative; the affix is much more restricted semantically.[22]

[22] The only place were they show a similar effect is in the case of 'hacer' combined with state intransitive verbs like 'unaccusative' verbs whose single argument is an Undergoer.

From the perspective of RRG, the interesting problem presented by the range of different syntactic realizations of the Causee can be described in terms of linking. That is, the theory assumes a general linking rule that guarantees a uniform realization of LSs into syntactic categories and structures (PSA and case). (6a) would be the proper output of the linking rule as applied to (6b). However, none of the realization of the Causee presented in (5) would be predicted by the linking process without making reference to the juncture-nexus theory. Such a theory will allow us to describe (5) without any modification of the linking algorithm. The *hacer* construction is the result of the combination of two predicates lexically able to expand into independent sentences. The problem, then, is to decide at what structural level the combination takes place (Nucleus, Core or Clause) and the differences among constructions will be derived from the different junctures that they involve.

A. Comparing '*hacer*-infinitive' to other 'finite verb-infinitive' structures

Different predicates acting as main verbs can be combined with a non-finite verb form in the same sentence in Spanish. In order to make precise the specificity of the *hacer* construction we will present a schematic review of the behavior of the other verbs. First, we group main verbs that combine with finite verbs and non-finite verb forms respectively.[23] The combination between a main verb and a non-finite one can be instantiated, in turn, by three different verbal forms: participles, gerunds and infinitives. Given the structure of the *hacer* construction, we should restrict ourselves to non-finite verb forms. Participles in Spanish involve the suppression of the Actor

[23] In the first case, the embedded finite verb will be headed necessarily by a complementizer and the clause would function as a complement clause.

(i) María dijo en Mendoza que Juan vuela a Santiago manana.
María told in Mendoza that Juan flies-Subj to Santiago tomorrow.
'María told (people) in Mendoza that Juan flies to Santiago tomorrow'

(i) should be characterized as 'Clausal Subordination' due, on the one hand, to the argument status of the complement clause, the total independence of operators between both nuclei and the possibility of inserting peripheral elements between the main verb and the 'that-clause'. A different juncture-nexus type involving also 'that- finite verb' clauses is exemplified by (2). In this case the resulting structure is 'core subordination' because the 'that- clause' expresses an argument position of the main verb (the requirement of Subjunctive in the subordinate clause can be seen as evidence that the syntactic relation is tighter in (2)). Finally, adverbial clauses introduced by subordinating conjunctions or prepositions act as peripheral modifiers so that they constitute 'clausal subordination'.

projection into PSA. They are always combined in clausal subordination junctures acting as modifiers of the main clause:

(9) Juan$_i$ encontró a Pedro sentado$_{i/j}$.
Juan$_i$ found to Pedro$_j$ sitting down$_{i/j}$

'Juan$_i$ found Pedro$_j$ sitting down$_{i/j}$'

This example shows that the syntactic position of the participle may not vary, but its Undergoer could be either the Actor or the Undergoer of the main verb. This means that syntactically, the main verb has no intervention on the effect on the interpretation of the Actor of the participle.[24] The crucial fact is that the semantic relationship between the verbs is unconstrained (better, only temporally constrained), and this is why it is possible to combine any verb with a participle. Basically, the only constraint is that the participle describes a 'state' whose Undergoer is either the subject or the direct object of the sentence. This is also consistent with the fact that there is no lexical requirement of the verb to take a participle.

Similarly, Spanish gerunds introduce only peripheral clauses. The semantic relation that join the two state of affairs is unrestricted, and they are not lexically required. Examples of this could be:

(10) a. María$_i$ encontró a Pedro$_j$ cantando$_{i/j}$.
María found to Pedro singing

'María found Pedro singing'

b. Juan rompió el lápiz escribiendo.
Juan broke the pencil writing.

'Juan broke the pencil while writing'

The semantic relations between the verb forms in (10a) are determined along two unrelated axis. First, both verbs share an argument: the Actor of the main verb and the Actor of the infinitive verb are referentially related. Second, the temporal relation between both verbs is anaphoric; it is grammatically established that the situation time of the State of Affairs referred to by the gerund should be simultaneous or immediately precede the situation time of the State of Affairs referred to by the main verb. In the second example, beside the semantic relations claimed for the preceding example, it can be argued that there is also a causal relationship implied. However, we would say

[24] Alternatively, it is possible to postulate two different structural configurations for both interpretations of the participle. Only when the subject of the main verb is the Actor of the participle, this one is interpreted as a verb; otherwise, it is just an adjective in a regular NP.

that this is clearly non-grammaticized 'world knowledge' and context information (it should be noticed, though, that such modifications frequently involves the notion of 'manner'). The comparison between infinitives and gerunds in Spanish makes clear that the latter can not function inside the core of another verb; such a function is restricted to infinitive forms. Conversely, infinitives are the only non-finite verb forms in Spanish that can play a crucial role at the core and nuclear level of main predicates.[25] Consequently, the relationship of the infinitive verb and the main verb is semantically constrained whereas it is unconstrained in the case of the gerund and the main verb. Moreover, even if the main verb and the gerundive form share an argument, the finite verb does not grammatically determine which argument in particular will be shared, as can be seen by the ambiguous reading of the example above. On the contrary, the Actor of the infinitive in core and nuclear junctures is always specified by the main verb. What can make such a difference? In principle, it seems that the only semantic difference between infinitives and gerunds is that the latter are aspectually marked as 'continuous' whereas the formers are unmarked. It would be possible to associate this property with the fact that infinitives, being not aspectually marked, are closer to nouns than gerunds; and nouns are the typical syntactic arguments of predicates. We would like to suggest that such combinatory behavior mirror their temporal and semantic properties: gerunds have their Situation Time grammatically active whereas the Situation Time of infinitives is only pragmatically interpreted.

The next question is, does the behavior of the causative construction differ in any sense from the general pattern shown by verbs that combine with infinitive verbs? In other words, can we talk about one construction 'main-finite verb + infinitive' or does this combination result in different constructions? And if so, what is triggering the difference? RRG predicts the answer via the

[25] Only the non-nominalized form of the Spanish infinitive is referred to here. The nominalized form acts just like nouns andcan be modified by determiners, adjectives and quantifiers. They expand into noun phrases and instantiate argument positions:

(i) El trabajar desganado de Manuel me disgusta cada dia más
the work-inf unwilling of Manuel me dislike each day more.
'I dislike Manuel's unwillingness to work more every day'

These are nominalized infinitives. On the contrary, the infinitives in the construction that we are looking at cannot accept nominal modifiers (like determiners).

(ii) *Juan quiere el lavar el auto.
Juan wants the wash of the car.
*Juan wants washing the car.

Interclausal Relations Hierarchy: they are different constructions and their respective structures depend on the semantics of the main verb.

In the example (a) and (b) below, the embedded verb contains a Logical Structure that projects into an independent core. A piece of evidence for such claim is given by (a') and (b') respectively. The impossibility of promoting the Undergoer of the infinitive verb to subject position in a passive sentence indicates the presence of two cores, each one corresponds to the syntactic domain of the LSs of the two verbs involved in the sentence. The domain of Macroroles is the core of its own predicate and this is the reason why the Undergoer of the embedded verb cannot move to the core of the main verb.

(11) a. María intentó limpiar el auto.
María tried clean the car.

'María tried to clean the car'

a'. *El auto fue intentado limpiar por María.
The car was tried clean by María.

'The car was tried to clean by María'

b. María le prometió a Pedro limpiar el auto.
María him-DAT promised to Pedro limpiar the car

'María promised Pedro to wash the car'

b'. *El auto fue prometido limpiar por María.
The car was promised clean by María

'The car was promised to clean by María'

In both of the sentences above, one core argument in the LS of the main verb is associated with a core argument position in the LS of the embedded verb. At a syntactic level, the crucial fact is that the embedded verb LS is realized in a core whose syntactic position for the Pivot/PSA argument is missing. This prevents the PSA argument from being overtly expressed. The fundamental property of these 'obligatory control construction' according the RRG approach (VV&LP (1997: 540)) is that the argument of the main LS associated with the embedded argument is predictable on semantic grounds: it is the Undergoer for causative and jussive verbs; otherwise, it is the Actor. This construction is categorized as 'core juncture structure'; namely, they involve two cores forming a

single one. As pointed out in VV&LP (1997: 543), control construction may represent a syntax-semantic mismatch: the LS of the infinitive verb is a semantic argument of the finite verb LS; but the syntactic template projected by the infinitive may not be a syntactic argument of the finite verb template. This is the reason why control constructions are categorized as 'non-subordinate' construction.

We now turn to a comparison of *hacer* with verbs that are closer in meaning to it and close to its level in the Interclausal Relations Hierarchy (IRH), which states that a complex sentence holding the closest semantic relation has the strongest syntactic relation between its immediate constituents. This is represented in the following schema:

Strongest	Closest
Nuclear Cosubordination	Causative
Nuclear Subordination	Aspectual
Nuclear Coordination	Psych-Action
Core Cosubordination	Purposive
Core Subordination	Jussive
Core Coordination	Direct Perception
Clausal Cosubordination	Propositional Attitude
Clausal Subordination	Cognition
Clausal Coordination	Inderect Discourse
	Temporal Adverbial
	Conditionals
	Simultaneous Actions
	Sequential Actions: Overlapping;
	Sequential Actions: Non-overlapping
	Action – Action: Unspecified

For example, 'direct perception' verbs cannot realize syntactically the PSA argument of the embedded verb. This shared argument is expressed as the Undergoer of the matrix core. Evidence from this comes from passivization.

(12) a. María vió a Pedro lavar el auto.
María saw to Pedro wash the car

'María saw Pedro washing the car'

b Pedro fue visto lavar el auto
Pedro was seen wash the car

'Pedro was seen washing the car'

c *el auto fue visto lavar por Pedro.

'The car was seen wash by Pedro'

The Undergoer of the main verb is the PSA of the first core and the embedded verb remains the same; this shows that *a Pedro* is an argument of the main verb and that the two verbs are independent cores (each with their own Macroroles). Also, (12c) exhibits the ungrammaticality of a passive sentence with the embedded Undergoer as PSA; the embedded Undergoer cannot be, then, the Undergoer of the whole sentential structure. Further evidence of the independence of the clauses is shown by the impossibility of attaching a clitic expressing the embedded Undergoer to the main verb (13a); this Undergoer can only be expressed by a clitic on the embedded verb (13b).

(13) a. * María lo vió lavar.
María it-ACC saw wash.

'María saw (somebody) washing it'

b. María vió lavarlo.
María saw wash-it

'María saw (somebody) washing it'

On the contrary, *hacer* shows a different behavior in all these respects, as the examples below show.

(14) a. El auto fue hecho lavar (por María).
the car was made wash (by María).

'the car was made to be washed (by María)'

b. El auto le fue hecho lavar a Pedro.
The car him-DAT was made wash to Pedro.

'The car was made to be washed by Pedro'

c. María lo_j hizo limpiar (al auto)$_j$ (por Pedro).

María it-ACC made clean (the car) (by Pedro)

'María had it cleaned (by Pedro)'

Particularly relevant is (14a), which is the passive version of (5c), because it exhibits that the Undergoer of the infinitive verb can be the subject of a passive sentence; in other words, such sentence shows that the embedded Undergoer can be the subject of the main verb under passivization. Also, (14b), which is the passive version of (5b), illustrates the same phenomenon. In the next example a clitic that is coindexed with the embedded Undergoer can be attached to the main verb. The comparison between the constructions with perception verbs in (12) and the causative verb in (14) can be very informative. On the one hand, the fact that perception verbs can be passivized independently from the infinitive is illustrated by the fact that its own Undergoer (12b), rather than the Undergoer of the infinitive verb (12c), is promoted to subject position. This fact is a strong evidence for the presence of two independent cores in the 'perception verb-infinitive' construction; the data could not be described without positing two independent cores with its own macroroles. Moreover, the fact that a clitic coindexed with an argument of the infinitive verb cannot be cliticized to the main verb is also evidence for core juncture. On the other hand, when tested against the same phenomena the causative construction exhibits the presence of a single core. The Undergoer of the infinitive is the subject of sentence with a passive main verb; this means that there is only one core and, consequently, two Macroroles.[26] Also, if a downstairs clitic can be attached to the main verb is because the two verbs are sharing arguments, or, in other words, they just act like a single predicate.

Further, verbs that are semantically more similar to *hacer* do not behave alike. *Forzar* 'force' is a causative verb that entails that the causee is not an intentional effector of the infinitive LS; indeed, it entails that the causee resisted performing the embedded action.[27] The relation

[26] It is worth mentioning the fact that the 'by-phrase' in (14a) is able to express the embedded Actor (which already was in that position in the active version of the sentence (5c)).

[27] The embedded LS cannot be a state and, likely, this is one of the semantic features that differentiates it from the causative 'hacer' which can accept states.

(i) Juan le hizo ver/mirar el partido otra vez.
Juan him made see/watch the game once more.
'Juan made him watch the game once more'

(ii) Juan lo forzó a *ver/mirar el partido otra vez
Juan him forced to see/watch the game once more

between the causer and the causee is strongly focused by this verb due to the high degree of affectation exhibited by the causee.

(15) a. María forzó a Pedro a lavar el auto.
María forced to Pedro to wash the car

'María forced John to wash the car'

b. Pedro fue forzado a lavar el auto
Pedro was forced to wash the car.

'Pedro was forced to wash the car'

c. *el auto fue forzado a lavar.
the car was forced to wash

'The car was forced to wash'

d. *María lo_i forzo a $Pedro_j$ a lavar.
María him-ACC forced to Pedro to wash.

'María forced Pedro to wash it'

Beside the fact that, unlike *hacer*, the causee must be expressed by an Accusative NP without further options, *forzar* 'force' behaves differently also regarding passivization and cliticization. It does allow the main verb to promote its Undergoer to subject position in passive sentences (15b), and, at the same time, it does not allow the embedded Undergoer to be the subject of a passive (15c). Moreover, a clitic of the infinitive verb can not be attached to the main verb, but it has to remain in the core associated with the LS that gives semantic interpretation to such a clitic (i.e. the LS of the infinitive verb). In sum, it behaves just like perceptions verbs do; *forzar* is expressed by a core juncture.

Differently, *ordenar* 'order' should be interpreted as a jussive verb whose affected argument is realized syntactically by a dative NP;[28] thus, it does not present either the range of variation in the realization of the causee that *hacer* presents (i.e. accusative, dative or adjunct forms). Like *hacer*, *ordenar* allows a downstairs clitic to attach to the main verb (c), which could be a symptom of a single core nexus. However, it does not allow the embedded Undergoer to be the PSA or subject of a passive (i.e. (16b)), and this is a crucial test to check the presence of a single core.

'Juan forced him to watch the game once more'

[28] Light directive causative is a label useful to oppose *obligar* 'oblige' and *ordenar* 'order'. The first one entails that if the first member of the causative structure took place, then the effect took place too. The second one does not entail that the effect took place. Also, *ordenar* 'order' presupposes some social asymmetric relationship between causer and causee whereas the asymmetry in *obligar* 'oblige' need not be social.

(16) a. María le ordenó a Pedro lavar el auto.
María him-DAT ordered to Pedro wash the car.

'María ordered Pedro to wash the car'
b. * Los autos fueron ordenados limpiar.
The cars were ordered clean

'The cars were ordered to clean'
c. María se lo ordenó lavar a Pedro.
María him it-ACC ordered wash to Pedro.

'María ordered Pedro to wash it'

The fact that the Undergoer of the embedded verb in (16b) can not be promoted to subject in a passive sentence accurately signals the presence of more than one single core. This is also consistent with the possibility of having intervening arguments as shown in (16a). Based on the arguments presented above when *ordenar* 'order' and *forzar* 'force' were analyzed in the same contexts, we should conclude that these sentences show clear symptoms of the presence of two cores. Optionally, the construction may allow a 'nuclear juncture' as indicated by the attachment of embedded clitics to the main verb in (c) (i.e. the embedded accusative clitic). There are, though, some particular characteristics of the class of verbs that express the affected argument via a dative NP, like *ordenar* 'order', which goes even beyond jussive verbs. One of their main properties is the possibility of taking the infinitive clause as subject.

(17) Lavar el auto le fue exigido a Pedro.
wash the car him-DAT was required to Pedro.

'To wash the car was required of Pedro'

As it is shown below, none of the former examples allow this kind of sentences. Neither *hacer*, nor *ver*, nor *ordenar* can have the infinitive phrase as subject in a passive sentence.

(18) a. * lavar el auto lo fue hecho a Pedro.
wash the car him,-ACC was made to Pedro.

'Pedro was made to wash the car'
b. * lavar el auto fue visto a Pedro.
wash the car was seen to Pedro.

'Pedro was seen washing the car'
c. *lavar el auto fue forzado lavar el auto.

wash the car was forced a Pedro.

'Pedro was forced to wash the car'

Neither the causative constructions in (a) and (c), nor the perception verb in (b) allow the infinitive phrase to be the subject of a passive sentence. This indicates that in those case the infinitive verb does not function as a syntactic argument of the main verb. The fact that the infinitive phrase of *ordenar* is indeed its subject in the sentence above can be further proved by the following data.

(19) a. Juan lo ordenó
Juan it ordered

'Juan ordered it'

b. Fue lavar el auto lo que ordenó Juan.
was wash the car it what ordered Juan.

'It was to wash the car what Juan ordered'

c. Lavar el auto parece haber sido ordenado por María.
Wash the car seems have been ordered by María.

'To wash the car seems to have been ordered by María'

The event referred to by the infinitive can also be the referent of accusative clitic in (a); this strongly suggests that the infinitive verb is an argument (assuming that accusative clitics can only express direct core arguments). Moreover, it can be clefted as shown in (b) which also is a property of an argument position. All verbs whose causee is expressed through a dative phrase behave like *ordenar*; for example, *permitir* 'allow' ; *impedir* 'impide'; *prohibir* 'prohibit' and non causatives like *prometer* 'promise'. On the contrary, *hacer* and *forzar* do not allow (a) nor (b), but they only allow clefting. Also, a possible analysis of the sentence (19c) is that the infinitive phrase preceding the verb *parecer* 'seem' is indeed its subject, which has been raised from the complement clause. This example is a crucial piece of evidence to support the claim that the infinitive phrase is the subject of passive in (17); and, if this is true, it must be true that this infinitive phrase is indeed a syntactic argument of the embedded verb.

In sum, we have seen that different syntactic structures can be involved in the general schema 'finite verb- infinitive verb' combination. First we look at Actor 'control' verbs like *intentar* 'try' and *prometer*; they do not allow the promotion of the embedded Undergoer to subject

position in passive sentences. Such behavior was interpreted as an unequivocal indication of the presence of a core juncture. Second, we looked at perception verbs and checked that they do not allow the promotion of the embedded Undergoer to subject in passives, but rather they promote their own Undergoer to such a position; they do not allow either 'clitic climbing'. Perception verbs can safely be considered to involve core junctures. Third, we looked at *forzar* 'force', a causative verb closer in meaning to *hacer*, and proved that it behaves just like perception verbs regarding the same tests referred to above. Finally, jussive verbs with dative arguments like *ordenar* do not allow either of the two types of passivization descripted above, but just a passive sentence in which the subject seems to be the infinitive phrase. Also, (16c) shows that this kind of verbs allow 'clitic climbing'. At this level, it seems that a tentative generalization could be stated in the following terms. First, 'control verbs' with Undergoer control, like perception verb and causative verbs of the *forzar* class (i.e. transitive verb with accusative objects), are unequivocally core junctures. Second, Actor control verbs like *intentar* and *prometer* present, as expected, a core juncture. Third, jussive verbs with dative arguments have clear symptoms of core junctures (they do not allow the promotion of the embedded Undergoer to subject in passives). Unlike the typical control construction, the infinitive phrase seems to be an argument of the main verb so that they would be categorized as core subordinate.

Regarding the '*hacer*-infinitive', the data that has been presented attest that such a construction does not behave like a core juncture structure. In the next section, evidence will be presented indicating that the '*hacer*-infinitive' construction takes different forms that involve either nuclear juncture or core juncture.

B. The '*hacer*-infinitive' construction as a nuclear cosubordinate structure

In the lexicon every verb is a predicate containing a set of arguments; this is represented in the Logical Structure of the verb. A reasonable assumption is that the verb LS is part of the lexical information that cannot be changed by any syntactic structure; otherwise, the result would be literally a different word and, consequently, such process should be considered lexical. Nuclear

junctures are syntactic structures because they respect the LS of the predicates; for syntactic purposes, though, the juncture is treated as a unit.

There is clear evidence that some subtypes of the causative construction involve nuclear junctures. In particular, the form (5a) in which the causee surfaces in an adjunct PP headed by *por* 'by' ('*hacer*-POR') and the one in (5b) in which the causee surfaces as a dative NP ('*hacer*-DAT') will be shown to be nuclear junctures.

Aissen and Perlmutter (1978) argued that the attachment of a clitic expressing an argument of the embedded verb to the main verb (phenomenon known as 'clitic climbing') could only be possible if both verbs constitute a single clause, a structure that they named 'clause reduction'. The idea can be translated into RRG terms very naturally. It is assumed that clitics attach to their nucleus (the elements whose LS served as the locus for their semantic interpretation). Consequently, examples like the one below should be interpreted as involving two nuclei ('complex nucleus') under the same core.

(20) a. María lo hizo limpiar (por Pedro).
María it-ACC made-3sg clean (by Pedro)
'María had it washed by Pedro'

b. María se lo hizo limpiar a Pedro.
María him-DAT it-ACC made-3sg clean to Pedro
'María made Pedro wash it'

c. *María lo_i hizo a $Pedro_k$ limpiar.[29]
María it-ACC made to Pedro clean.
'María made Pedro clean it'

The accusative clitic *lo* in (a), (b) and (c) expresses the Undergoer of the embedded verb LS. The clitic should be able to attach only to its own nucleus, namely the one that provides the LS where the pronominal element can be interpreted (and this, consequently, determines its syntactic features); that is, *limpiar* 'clean'. However, it is cliticized to the main verb *hacer*. The only possible

[29] An accusative clitic cliticized to the infinitive verb expresses the Undergoer of the infinitive verb.
(i) María hizo a $Pedro_k$ limpiarlo.
María made to Pedro clean-it(ACC)
'María made Pedro clean it'

interpretation of (16a) and (b) is, then, that *hacer* 'make' and *lavar* 'wash' constitute a complex nucleus in a single core. On the contrary, (16c) shows that '*hacer*-ACC' cannot be interpreted under the same assumptions as the other forms because it does not allow a clitic to attached to the main verb. This pronoun needs to stay in the syntactic environment of the infinitive verb, which offers the argument position to be satisfied by the clitic (i.e. *limpiarlo* 'clean-it').

In principle, 'clitic climbing' seems to be a powerful evidence for the presence of a single core. However, the fact that it is so pervasive in the set of Spanish verbs that combine with infinitives merit some further consideration. For example, all Actor control verbs displays such properties.

(21) a. Juan lo intentó lavar.
Juan it-ACC tried wash

'Juan tried to wash it'

b. Pedro se lo prometió lavar.
Pedro him-DAT it-ACC promised wash

'Pedro promised him to wash it'

Therefore, one should admit that a majority of the verbs taking infinitives in Spanish have a nuclear juncture version. The typical pattern for a Spanish verb taking an infinitive is to be coded optionally in a nuclear juncture. Only a minority of verbs, then, would not be able to be coded in a nuclear juncture structure so that the relevant question is why these verbs cannot have a nuclear juncture. Is just a simple lexical property or it is –perhaps- semantically driven? Hopefully, it will be clear by the end of this paper that within the domain of one construction, its instantiations into different syntactic templates correspond to different meanings. Regarding the Spanish causative construction, the semantic parameter is not a 'different meaning of causation' but the strong or weak relation between causer and causee. The structure that foregrounds this relationship requires a separate core for every predicate; if there is no special foregrounding, the structure can be contained within a single core. In this respect, it can be said that the latter structure is the unmarked one in the sense that it does not assume any particular construction of the scene. It would be possible that the

other verbs taking infinitives display the same behavior: their unmarked realization is determined by their semantic properties.[30]

Another possible interpretation of clitic climbing would deny that clitics are necessarily in the syntactic domain of the predicate that assigns the semantic interpretation to the clitic. There is a strong consensus supporting the former hypothesis, though. Consequently, we will assume the mainstream position about clitics; namely that they act in the domain of the predicate in which they receive semantic interpretation.[31] The result of our analysis seems to be that the '*hacer*-por' and the '*hacer*-DAT' forms allow clitic climbing; and, on the contrary, the '*hacer*-ACC' construction does

---

[30] Each of the following examples represents one of the semantic classes listed in the Interclausal Relationship Hierarchy (VV&LP,1997). The canonical position for the clitic would be to be attached to the infinitive verb; such situation allowed by all the verb forms below (and for some of them is the preferred form). However, most of them permit the pronominal form to cliticize to the main verb (i.e. 'clitic climing'). The list shows how extensive is 'clitic climbing' in the Spanish structure 'finite verb+infinitive'.

Aspectual: a. Juan lo empezó a construir el Viernes. — a' *El edificio fue empezado a construir el Viernes por Juan
Juan it began to construct the Friday — the building was started to build the Friday by Juan
'Juan began to construct it last Friday' — 'The building was started to build on Friday by Juan.

Psych-action: b.Juan lo quiere construir el Viernes — b' *El edificio fue querido construir el Viernes por Juan
Juan it wants construct the Friday — the building was wanted to build the Friday by Juan
'Juan wants to construct it on Friday' — 'The building was wanted to build the Friday by Juan'

Purposive: c. Juan lo fue a buscar a la biblioteca. — c' *El libro fue ido a buscar por Juan
Juan it went to look to the library — the book was gone to look.for by Juan
'Juan went to the library to look for it'

Jussive: d. Juan se lo ordenó lavar a Pedro. — d' *El auto fue ordenado lavar por Pedro.
Juan him it ordered wash to Pedro. — The car was ordered to wash by Pedro.
'Juan ordered Pedro to wash it' — 'The car was ordered to be washed by Pedro'

Direct Perception: *Juan lo_i vio lavar a $Pedro_j$. — d' *el auto fue visto lavar por Juan
Juan it saw wash to Pedro. — the car was seen wash by Pedro
'Juan saw Pedro wash it' — 'The car was seen being washed by Pedro'

Propositional attitude:e Juan lo creyó conseguir pronto. — e' *El auto fue creido conseguir por Juan
Juan it believed get quickly. — The car was believed get by Juan
'Juan believed that he could get it quickly' — 'The car was believed to be gotten by Juan'

Cognition: f. Juan la_i sabe tratar a una $dama_i$. — f' Una dama es sabida tratar por Juan
Juan her knows treat to a woman — a woman is known treat by Juan
'Juan knows how to treat a woman' — 'A woman is known to be treated by Juan'

Only perception verbs and causative verbs (*forzar* 'force') do not allow climbing. Both are transitive verbs with Undergoers expressed by accusative NPs. The (') examples shows that the corresponding passive sentences in which the Undergoer of the infinitive verb has been promoted to subject position.

[31] There are examples that make reasonable a consideration of the second possibility, though. As it is well known, clitics can introduce arguments. Examples come from 'ethical dative' as well as from 'non-inherent' datives:

(i) Juan le lavó el auto a Pedro.
Juan him washed the car to Pedro.
Juan washed the car for Pedro.

It is unlikely that the verb 'lavar' (*wash*) has a *beneficiary* argument. More plausible, the clitic introduces such a participant as a core argument. The dative clitic (co-referential with 'a Pedro') seems to be introducing an argument rather than just expressing one.

Also, the clitic can appear attached to the modal verb in the example below. This indicates that the clitic can skip over a negation operator (which is supposed to have scope over the whole sentence in Spanish) and this fact would suggest that it is not totally clear that they attach to the V level as 'affix-like' elements.

(ii) Juan lo pudo no haber dejado abandonado.
Juan it could not have left abandoned.
Juan could not have left it abandoned.

not permit upstairs cliticization. The paragraphs below further show that the 'hacer-DAT' form requires clitic climbing but that the 'hacer-POR' form accepts downstairs cliticization.[32]

Further evidence of the presence of nuclear juncture can be seen by the fact that the clitic reflexive *se*, although expressing an argument of the embedded verb, can also be attached to the main verb.

(22) a. María se hizo peinar (por Pedro).
María herself made comb (by Pedro).
'María had Pedro comb herself'

b. *María$_i$ se$_i$ le hizo peinar a Pedro.
María herself him-DAT made comb to Pedro.
'María made Pedro comb herself'

c.*María$_i$ se$_i$ lo hizo a Pedro peinar.
María herself him-ACC made to Pedro comb
'María made Pedro comb herself'

In RRG (VV&LP (1997: 407ss), the reflexive clitics operate in a LS by suppressing its highest argument in the Actor-Undergoer hierarchy. This means that such Logical Structure will not map this argument to the Actor macrorole; the element in subject position may well be not, in fact, the Actor but the Undergoer of the verb. This can be seen in examples like:

(23) a. La puerta se cerró.
The door itself closed

The door closed

b. [**do'** (,)] CAUSE [BECOME **closed'** (puerta)]

The lexical entry of *cerrarse* 'close' is presented in (23b), that is the lexical entry of *cerrar* 'close' after *se* has operated on it. It can be seen that the Actor has been suppressed so that the conceptualization of the situation is still causative (presence of CAUSE) but there is no specific Actor. The verb is, then, intransitive and its subject is the Undergoer of the LS.

[32] For example, the following sentence is perfectly acceptable.
(i) Juan hizo limpiarlo por Pedro.
Juan made clean-it by Pedro.
'Juan had it cleaned by Pedro'

In this context the only possible explanation for the grammaticality of (22a) is that the two verbs constitute a unique core. If the reflexive were supposed to operate on the LS of the infinitive verb it would have suppressed its Actor (i.e. *Pedro*). However, the fact that both verb form a complex nucleus that projects to a single core allows *se* to act on the highest argument of the sentence. On the contrary, if there were two cores in (22a), the infinitive verb should have an Actor macrorole available and *Pedro* should be mapped into it. *Pedro* is not affected by *se* but, rather, it is an oblique argument whose Actor interpretation is confirmed by the presence of the preposition 'por' (*by*).[33]

Conversely, the '*hacer*-ACC' form in (22c) does not allow the cliticization of the reflexive to the main verb. This evidence is important because it shows the presence of two cores in such example. The ungrammaticality of (22c), then, resides on the fact that the reflexive clitics appears in a core that is not the projection of the LS where it operates. If the reflexive prevents *María* from being Actor, then *María* has to be interpreted as Undergoer. In such case, the accusative clitic *lo* would remain without available macrorole to be mapped to.

Surprisingly, the '*hacer*-DAT' form in (22b) behaves like a core juncture prohibiting the upstairs attachment of the reflexive. This behavior could be attributed to a general constraint that prevents the co-occurrence of the reflexive and a Dative clitic.

(24) a.*Juan se le dió/pidió/compró/sacó a María.
Juan himself him-DAT gave/asked/bought/took-from to María.
'Juan gave himself to María'

b.*Juan se le mostró a Pedro en la casa.
Juan himself him-DAT showed to Pedro in the house
'Juan showed himself to Pedro at home'

These examples show that the ungrammaticality of (22b) is probably caused by a different reason unrelated to its nexus juncture type.[34] It is a general constraint banning the co-occurrence of a

[33]Such preposition usually expresses an NP in the position of an Actor in a specific LS; for example in passives sentences where it expresses the Actor removed from the core.

[34] However, there is a wide spread use of dative clitics to introduce an affected argument transforming the original **intransitive** verb into a transitive one.

(i) a. Juan se le apareció a Pedro en la casa.
Juan himself him show to Pedro in the house.
Juan shows himself to Pedro at home
b. María se le rió a Pedro en la cara.

reflexive clitic and a dative argument under the same core in cases like the ones above where the dative NP expresses an argument of the verb LS and the reflexive clitic operates on an argument of this LS.

Further evidence for nuclear cosubordination comes from the comparison to the so-called anticausative *se* (Zubizarreta, 1985). This clitic would operate on the LS of a causative verb deleting the primitive CAUSE and, consequently, the effector. The remaining part of the conceptual structure is a State of Affairs whose Undergoer will be the only argument of the verb. In other words, in Spanish the basic verb is a transitive-causative verb; it turns to an intransitive-non-causative verb via a lexical rule that introduces *se*.[35]

(25) a. El Sol hizo derretir la nieve (*por Pedro).
The Sun made melt the snow (by Pedro).
'The Sun had the snow melted (*by Pedro)'

b. Vos hiciste romper el vaso (*por Pedro).
you made break the glass (by Pedro).
'you made the glass break'

In 'a', *derretir* 'melt' comes from a regular transitive verb with causative meaning. However, the preferred interpretation of *derretir* 'melt' in (25) is its intransitive non-causative form, just like the

---

María herself him laughed to Pedro in the face.
María laughed at Pedro's face.
c. Pedro se le cruzó a Juan por tonterías.
Pedro himself him crossed to Juan by foolish behaviors.
Pedro made Juan be angry at him because of foolish behaviors.

This process seems to be lexical because, beside the change in argument structure, there is also a change of meaning associated with it (that we can't analyze here). Basically, the dative clitic is introducing an affected argument that was absent in the original LS of the verb it is neither in the LS of the plain intransitive verbs, nor in the output of the application of the reflexive to such intransitive verbs. The generalization seems to be, then, that the dative clitic can co-occur with the reflexive only in those cases where it adds a core syntactic argument (at the semantic level these arguments are presumably incorporated by the addition of a modifier LS). Further, these verbs are the output of a previous 'se' insertion: in 'a' the original verb was *aparecer* 'appear' that was transformed into *aparecerse* 'appear-itself', presumably with some sort of 'inchoative' meaning; *reirse* 'laugh-itself' comes from *reir* 'laugh' and *cruzarse* 'cross-itself' from *cruzar* 'cross'. Interestingly, those verbs can not be combined with *hacer*,

(ii) *Juan hizo cruzarse/caerse/reirse a Pedro.
Juan made cross/fall/laugh-itself to Pedro.
Juan made Pedro cross/fall/laugh

[35] The following example shows how *se* operates on the verb *derretir* 'melt':

(i) Juan derritió la barra de hielo.
Juan melted the bar of ice.
(ii) La barra de hielo se derritió.
The bar of ice (REFL) melted
The bar of ice melted.

one that is obtained by adding *se*. One possible interpretation of the phenomena above is that *hacer* operates just like *se* eliminating the effector from the LS of the embedded verb. In other words, both elements are functionally equivalent. Some piece of evidence for interpreting (25) as the elimination of the effector rather than as its removal to adjunct comes from the impossibility of adding a '*por*-phrase' (by-phrase). The result is a complex LS under a single core having, then, only two macroroles to satisfy: the Actor introduced by *hacer* and the Undergoer of the embedded verb.[36] This interpretation (assumed in Zubizarreta (1985)) constrains us to recognize that the behavior of *hacer* in (22a) and (25) is different. In the case of (22a), the Actor of the embedded argument can not be realized as a Core argument because it does not qualify as the highest ranked argument in the core. Consequently, it can only be expressed as an adjunct 'by phrase'. On the contrary, in (25) the former effector-Actor disappears from the embedded verb LS, as can be seen by the fact that it cannot be expressed by any phrase. It can not be semantically recovered from the LS because it is not just there. This fact could posit a theoretical problem: acting on this way in a LS is a process that can be admitted to take place only in the lexicon. The syntactically visible aspects of an LS are only the macroroles, not the predicates, arguments or operators.

It is possible, however, to interpret such facts in a rather different way. It is possible to say that *hacer* in the sentences above combines with verbs to which *se* has been already applied; more precisely, the causative verb combines with *derretirse* 'melt-itself' rather than with *derretir* 'melt'. The co-occurrence of the causative verb and the clitic reflexive is banned for independent reasons. That is, nuclear junctures must allow 'clitic climing', but if the reflexive clitic is attached to the main verb, as in (25), the clitic would be interpreted as acting on the highest argument of the LS. This is not the intended meaning in those sentences and that is why this co-occurrence is banned.

A rather strong argument for positing a nuclear juncture is also given by the example in (14a) that we repeat below as (26)

(26) a. El auto fue hecho lavar (por Pedro/por María).

[36] The sentence below is rule out due to the impossibility of a reflexive clitic of attaching to the infinitive verb in the '*hacer*-POR' form.

(a) a. *El Sol hizo derretirse la nieve.
The Sun made melt-itself the snow
The Sun had the snow melted .

the car was made wash (by Pedro/ by María)
'The car was made to be washed by Pedro/by María'

The Undergoer of the embedded verb is promoted to PSA and the Actor of the main verb is assigned an adjunct status being introduced by the preposition *por* 'by'. The fact that the Undergoer of the embedded verb is promoted to the subject position of the main verb makes clear that, in fact, it is the Undergoer of the whole sentence. In other words, it can be the subject of the sentence because there is a single core; that is to say, the corresponding syntactic structure is nuclear juncture.

A relevant point to notice is the possible ambiguous reading of the adjunct phrase; namely that it can be interpreted as the Actor of the main verb (i.e. *María*) or the Actor of the embedded verb (i.e. *Pedro*). The first reading of the '*por*-phrase' corresponds to a regular passive; in the second reading, though, is not related to passive construction, but to the presence of the embedded effector expressed by a '*por*-phrase' in the '*hacer*-POR' construction.

The final piece of evidence that will be presented in order to show the presence of nuclear juncture is the impossibility of adding intervening material between the main and the linked verb. All the examples below would have been grammatical sentences if the intervening material were place at the end of the sentence (among other possibilities).

(27) a. *María hizo ayer lavar el auto (por Pedro).
María made yesterday wash the car (by Pedro).
'María made Pedro wash the car yesterday'

b. *María hizo por Pedro lavar el auto.
María made by Pedro wash the car.
'María had the car washed by Pedro'

c. * María hizo rápidamente lavar el auto por Pedro.
María made quickly wash the car by Pedro.
'María had the car washed by Pedro quickly'

The three sentences exhibit the ungrammaticality of intervening temporal and manner adverbs and arguments. This evidence confirms the presence of nuclear juncture which bans the presence of intervening material of any kind between the two verbs.

The following step is to analyze the type of nexus that is involved in '*hacer*-POR'. The theory of nexus in RRG recognizes three possible nexus types: subordination, coordination and co-subordination. If the '*hacer*-por' construction were a subordinate juncture, the non-finite nucleus should be a syntactic argument of the main verb. Passivization and clefting would be the appropriate tests to prove such argument status.

(28) a. *lavar el auto fue hecho por Pedro.
wash the car was made by Pedro.
'To wash the car was made by Pedro'

b. *fue lavar el auto lo que hizo por Pedro.
was wash the car it-ACC what made by Pedro.
'It was to wash the car what Pedro made'

Such ungrammaticality proves that subordination is not the relation involved in '*hacer*-POR'. On the other side, 'coordination' would include a rather open syntactic independence between the two items, something that has not been suggested by any evidence so far. On the contrary, we find a close operator dependency of the non-finite nucleus to the main nucleus. The only relevant operator to use to test the level of nexus of a nuclear juncture is aspect.

(29) María estaba haciendo limpiar el auto por Pedro.
María was making clean the car by Pedro.
'María was making Pedro clean the car'

The interpretation of the present progressive in Spanish is that of a 'durative' and non-completed state of affairs; that is, it is an Action or Event that extends through time. The truth conditions of the state of affairs are necessarily constant trough the whole interval. The infinitive verb cannot have a different aspectual interpretation than the one that is given to the main verb. In particular, the progressive in the main verb of (29) conveys necessarily a 'progressive' interpretation of the linked verb; *limpiar* 'clean' is an accomplishment that in (29) has not been completed by the time that the Action of the main verb was taking place. From this we would like to infer that the right

nexus is 'co-subordination', which is characterized by an 'operator dependency' such as the ones seen in (29).[37]

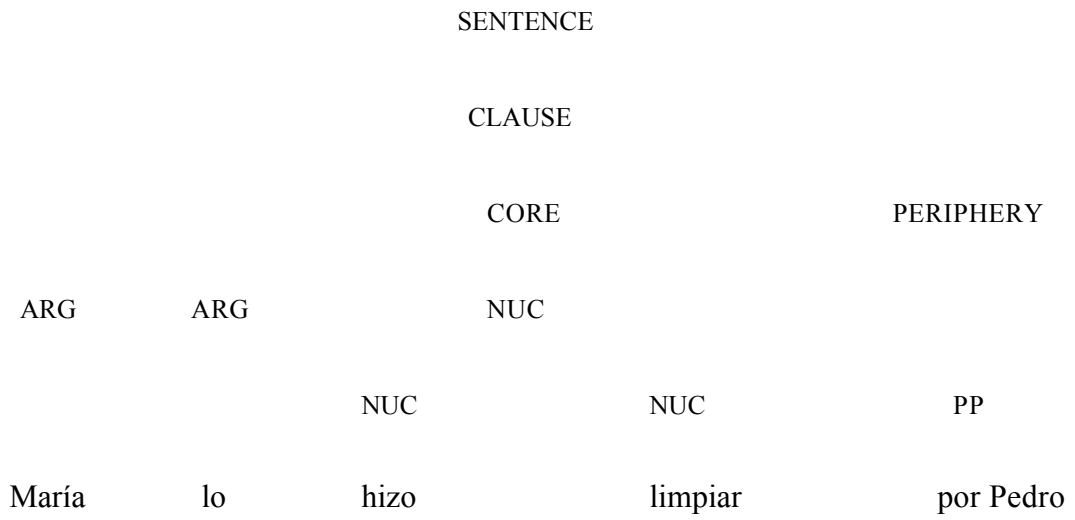
As we have been saying before, the Spanish causative construction is the result of the conflation of two logical structures. Extensive evidence has been presented above supporting the idea that (at least) one of the syntactic patterns in which this construction can be realized is nuclear cosubordination. The particular situation where the causee is expressed by a *por* 'by' phrase is one instance where such pattern is clearly present and this motivates the name '*hacer*-POR' construction.

One last comment should be made regarding the comparison of the '*hacer*-POR' construction and passive sentences, which have been associated since Zubizarreta (1987). Under the approach presented here, both constructions are clearly different. On the one hand, a passive sentence is the result of a different mapping of the macroroles into syntactic structures. In particular, in passive sentences the Actor is mapped to the periphery and realized as an adjunct whereas the Undergoer is mapped to the subject position. The crucial property is that there is no change in meaning between the active and the passive version. On the other hand, *the* '*hacer-POR' construction does involve a change in meaning*. This construction involves the association of two LS in a predicate-argument relation; the embedded LS is inserted in a slot available in the LS of the causative verb. Such insertion does not modify the LS of the embedded verb itself, but it alters its mapping into Macroroles. The highest argument of the embedded verb does not rank now as Actor of the core because it is overridden by the highest argument of the main verb as it is proposed in VV&LP (1997: 583) for the French *faire-par* causative construction. The two LSs are now associated in such a way that they map to the same list of macroroles, so their arguments are arranged into a single list hierarchically organized. The presence of macroroles as descriptive entities allows us to be descriptively adequate by capturing a rather subtle change in the semantic interpretation at a level that is not generally associated with truth conditions. Moreover, the fact

[37] Our reasoning about operator dependency in (29) is not limited to the actual appearance of a morphological marker. The fact that it is impossible to change the aspectual interpretation of the infinitive verb is taken as evidence that such verb does not have the operator projection available for predication.

that the LS is not what is modified, but instead the mapping of its argument into Macroroles, allows us to maintain a reasonable division between Morphology and Syntax. A modification of the LS would amount to a radical change in meaning (i.e. the role of participants in an event) so that, indeed, we have a different word (a different sound/meaning association). This kind of operations should be kept as morphological operations. Macroroles allow us to capture the difference in meaning outside the morphological domain.

Figure 1. Representation of sentence (20a)



C. The '*hacer*-infinitive' construction as a core coordinate structure

This section will be devoted to demonstrate that one of the syntactic patterns associated with the combination of the LS of the causative verb *hacer* and the LS of the embedded verb is a core template. The association of the causative verb and a causee expressed by an accusative NP (i.e. '*hacer*-ACC') is combined with transitive verbs only in the context of a core juncture.

Some of the evidence for the core coordination status of the '*hacer*-ACC' was already given above. In particular, example (20c) shows that '*hacer*-ACC' cannot undergo the attachment to the

main verb of an Accusative clitic expressing the embedded LS Undergoer. Such ungrammaticality can be explained assuming that both verbs project their own core so that if an embedded argument is cliticized to the main verb it gets unambiguously its semantic from the LS of the latter (as it is the case in (20c)). Any argument of the linked verb can be cliticized to the main verb. Such kind of cliticization (traditionally identified as 'clitic climbing' using a former interpretation under the 'movement' approach) has been a crucial test for identifying nuclear junctures in Romance as proved by the '*hacer*-POR' and the '*hacer*-DAT' forms.

It is its core juncture, also, which allows the '*hacer*-ACC' construction to have a reflexive clitic attached to the linked verb

(30) a.* Juan hizo peinarse$_i$ por Pedro$_i$.
Juan made comb-REFL by Pedro.
'Juan$_i$ had Pedro comb him$_i$'

b. *Juan le$_i$ hizo peinarse$_i$ a Pedro$_i$.
Juan him-DAT made comb-REFL to Pedro.
'Juan made Pedro$_i$ comb himself$_i$'

c. Juan lo$_i$ hizo a Pedro$_i$ peinarse$_i$.
Juan him-ACC to Pedro comb-REFL
'Juan made Pedro$_i$ comb himself$_i$'

(30c) is grammatical because *se* is the marker of an operation on the highest argument of the embedded LS; thus, *se* has to appear in the core containing the LS where such operation took place. That is, the reflexive clitic *se* is required to operate in the core projected by its predicate, and the '*hacer*-ACC' construction contains two cores. The clitic appears in the domain of the embedded core so that it operates on the highest argument of the embedded predicate (the Actor of *peinar* 'comb', i.e. *Pedro*). In short, *se* does not operate on the highest argument of *hacer* (i.e. *Juan*) because it belongs to a different core.

How to rule out (30a) and (b)? If we follow the same line of argumentation the explanation should rely on the nuclear juncture status involved in both cases as opposed to (30c). The presence of a nuclear juncture requires the clitic to act on the highest argument of the main verb *hacer* instead of acting on the highest argument of the embedded LS, which is the interpretation that we aim at.

That is, being in the same core, the highest argument of the main verb ranks higher than the highest one of the embedded verb in the Actor-Undergoer hierarchy. Because the reflexive clitic operates on the highest argument of the core, the interpretation that we aim at is not possible.

Why is, though, that even if we aim at the 'wrong' interpretation (namely, 'se' acting on the highest argument of *hacer*, here expressed by 'Juan') the sentence is still ungrammatical? The answer does not seem to be purely configurational; indeed, the structural conditions should allow such relation: it is a nuclear juncture and *Juan* is the highest argument of the core. On the contrary, the answer could be that the embedded LS is 'active' so that its highest argument is 'active' too; in other words, the construction lack a subject position for the infinitive verb, so that the only possible blocking should come from Actor macrorole. Being active, such macrorole obstructs the proper interpretation of the reflexive because it is higher in the hierarchy than the argument expressed by the reflexive and, thus, a potential antecedent. Such situation creates ambiguities that are avoided simply by attaching the clitic closer to the verb (like in 22a). We know that the nuclear juncture prevents the highest argument of the embedded LS to be Actor and direct core argument; namely, such argument is not syntactically present in the (30a) core. It seems, then, that its being active is due only to its presence in the embedded Logical Structure.[38] This fact should be seen as an evidence of the role of LS in the interpretation of 'reflexive clitics'.

We can find further evidence justifying the assignment of a core juncture to the '*hacer*-ACC' by going back to the sentence in (22c). It is shown there that a reflexive clitic cannot be attached to the main verb. This can also be explained by the presence of a core juncture with Undergoer control. In the example (22c), assuming that reflexive clitics operate on the highest argument of *hacer* (expressed by *María*), this would leave *lo* and its coreferential NP *a Pedro* without semantic interpretation. Namely, they would need to express the Undergoer, but there is only one available in a nuclear juncture and it is instantiated in this case by *María* (due to the presence of *se*). There is no

[38]This could be accounted for in a purely configurational syntax like GB. Principle of A of binding theory says that 'an anaphor must be A bound in its governing category'. There is a governing category there and the only accesible subject is 'Juan'.

Macrorole available for the clitic pronoun so that it can not be expressed as a direct core argument by an NP with accusative case. It has to be, then, that the structure of (30c) is a core juncture.

The description above assumes that the interverbal position of 'Pedro' triggers immediately its interpretation as Undergoer of the main verb so that it can never be thought of as an embedded verb argument. An example where *a Pedro* could not appear interverbally could be the previous 22a ('María$_i$ se$_i$ hizo peinar' (*Juan had himself combed*)). The structural description of such example involves a nuclear juncture in which the reflexive clitic is associated with the lower argument of the embedded verb (indeed, the Undergoer of the whole construction).[39]

A different kind of syntactic evidence for the core juncture is presented by the possibility of having an unspecified embedded object co-occurring with an accusative clitic realizing the Undergoer of the main verb.

(31) a. María lo hizo matar.
María him-ACC made kill.
'María made him kill'

a' 'María made (somebody) kill him/it'

b. *María le hizo matar.
María him/it made kill
'María made him/it kill'

As indicated by the translation, sentence (31a) is ambiguous. The accusative clitic can refer to the Undergoer of the embedded verb (in such case the causee remains unspecified) and the corresponding English version is (31a'). Also, the clitic could refers to the causee and in such case the Undergoer of the embedded verb remains unspecified, which is the reading captured in the

[39]It should be noticed that Undergoer control verbs do not allow those clitic attachments for some speakers:
(i) ?Juan se forzó a lavar el auto.
Juan himself force to wash the car
Juan force himself to wash the car
(ii) ?Juan se obligó a lavar el auto.
Juan himself obliged to wash the car
Juan obliged himself to wash the car

On the other side, jussive verbs whose causee are realized by a Dative clitic are perfect.
(iii) Juan se permitió lavar el auto anoche.
Juan himself allow wash the car last night.
Juan allowed himself to wash the car last night.

translation in (31a). In this case, the former accomplishment *matar* 'kill' has been transformed into an activity-like verb. We claim that the two translations of (31a) are associated with two different junctures. The first translation is made possible by a core juncture whereas the second one corresponds to a nuclear juncture.

The first reading would never be possible if it were the case that the main verb did not have its own Undergoer argument ready to bear accusative case. Because *hacer* has its own core and its corresponding Undergoer macrorole available, the accusative clitic is associated with it; otherwise, it would immediately be interpreted as expressing the lowest argument of the embedded verb (which is indeed, the reading in (31a')). Thus, if *hacer* and *matar* 'kill' were in the same core, the lowest argument would be the patient of *matar* and consequently it should get automatically accusative case. Such interpretation would rely on the assumption that in Spanish there cannot be two accusative NPs under the same core referring to different participants (this excludes clitic doubling from being banned by such constraint). This is a strong constraint that does not admit exceptions. In turn, not having a core juncture, the '*hacer*-DAT' form does not accept unspecified objects, as it is shown by the sentence in (31b).

Up to here, we have been presenting data in order to support part of our hypothesis that the '*hacer*-ACC' construction is a core juncture structure. The other part of the hypothesis is that this construction involves a 'coordinate' nexus and Undergoer control. Many of the examples above could be also used for this purpose, but here I concentrate on the non obligatory sharing of operators and then we will show also that the infinitive verb is not a syntactic argument of the main verb.

(32) a. María lo estaba haciendo lavar el auto en diez minutos.
María him was making wash the car in ten minutes.
María was making him wash the car in ten minutes.

In the first example, the main verb is in the progressive form. Consequently, the situation is an incomplete state of affairs. The prepositional phrase 'en diez minutos' (*in ten minutes*) has the function of a temporal adverb enclosing the state of affairs referred to by the verb in a limited period of time. Crucially, the structural relationship of the adverbial phrase is ambiguous: it can directly

modify the main verb or the embedded verb. In the first case, the meaning of the prepositional phrase is incompatible with the aspectual properties associated with the tense of the main verb. In the second interpretation the grammaticality of the sentence is expected if and only if the aspectual properties of the tense in the main verb are not determining the aspectual properties of the infinitive verb. In other words, (32) shows that both verbs do not necessarily share aspectual operators. This is the expected behavior for a core juncture: since aspect is a nuclear operator it should not be shared by the nuclei in a core juncture. The following example shows that operators are not necessarily shared either at the core level.

(33) Juan puede hacerlo a Pedro lavar el auto.
Juan can make-him to Pedro wash the car
'Juan can make Pedro wash the car'

The modal operator represented by the verb *poder* 'can' has, as its English counterpart, two possible interpretations: one states the mere possibility of an Event; the other states the 'capability' of the Actor and its paraphrases could be 'be able to'. This second interpretation makes clear that the operator has scope only over the main verb; the infinitive is outside the range of the modal since the following paraphrase is impossible: 'Juan is able to make Pedro be able to wash the car'. This is a fact that suggests the presence of coordination; it requires that the verbs do not share operators at the level of juncture. Furthermore, the fact that the infinitive verb can be independently negated offers conclusive evidence in favor of a coordinate nexus.

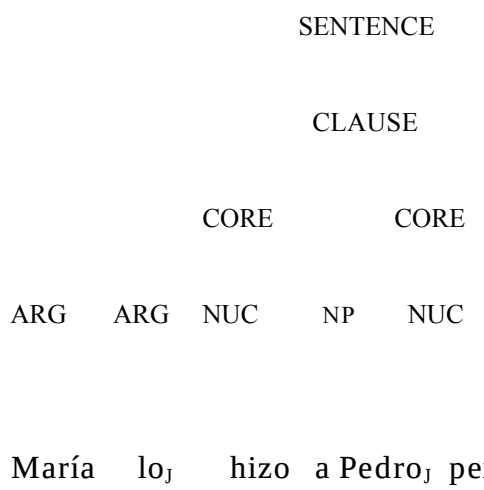
(34) Juan lo hizo no presentarse a ninguna beca
Juan him made not apply-REFL to any scholarship

'Juan made him not apply to any scholarship'

The translation makes clear that negation has scope over the infinitive but not over the main verb; consequently, the two cores act independently regarding negation. The presence of the negative polarity item *ninguna* 'any' reinforces the evidence that the negation is at the level of the core.

Finally, the claim that the verb is a 'core coordinate' structure with Undergoer control is supported by the fact that the argument shared by both Logical Structures is always the Undergoer of the main verb.

Figure 2. Representation of sentence (30c)



[40]

D. Semantic observations

The following section is devoted to presenting semantic evidence in support of interpreting the '*hacer*-ACC' construction as a core construction with Undergoer control. The argument is simple and relies on a broadly accepted assumption: if a predicate imposes selectional restrictions on an argument, then it must be in the semantic domain of the predicate. In other words, the argument belongs to the predicate that imposes such selectional restriction on it. The claim that will be made in this section is that *hacer* imposes selectional restriction on the causee in the '*hacer*-ACC' construction as opposed to the other subtypes of the construction where the causee is semantically unconstrained.

Examples like the one below show that the '*hacer*-ACC' construction requires its causee to be [+HUMAN].

(35) *? El ingeniero la hizo a la pared resistir el temblor.
The engineer her-ACC made to the wall resist the tremor.
'The engineer make the wall resist the tremor'

Such sentence is not acceptable and we would like to claim that the reason is that the Undergoer of *hacer* (i.e. 'la pared' (*the wall*)) is a [–HUMAN] argument. There are good semantic reasons for this

[40] The representation of the clitics as expressing a syntactic argument position is based on the fact that the full NP linked to the clitic is optional; and, the full NP is indeed a PP (which is not due to its 'human' feature).

constraint; namely, an NP referring to a 'thing' in the intermediary position of a causal chain is most likely to be interpreted as 'instrument'. The notion of 'instrument' is associated with participants in a causal chain that are not 'causally' affected, neither they causally affect another participant because they are not a sufficient condition. They are participants cooperating with the action of the effector; in this case, the Actor of *hacer*. Sentence (35) shows, then, that the Undergoer of *hacer* is not a semantically unconstrained position. This should be taken as evidence that such an argument is in the syntactic domain of *hacer*. In other words, this semantic relation requires a corresponding syntactic environment, and for a predicate-argument relationship this is the core. In turn, the other two causative forms can express the situation targeted by (35).

(36) a. El ingeniero le hizo resistir el temblor a la pared.
The engineer it made resist the tremor to the wall
'The engineer made the wall resist the tremor'

b. El ingeniero hizo resistir el temblor por la pared.
The engineer made resist the tremor by the wall
'The engineer made the wall resist the tremor'

These sentences show that the neither of both causative forms restrict the ontology of the causee to [+HUMAN]. In (35) and (36) the embedded verb is an activity verb; the following data show that the semantic properties of the embedded verbs (a causative accomplishment verb) do not alter this statement.

(37) a. *? Juan lo hizo al auto abollar el portón.
Juan it made to-the car damage the garage door.
'Juan made the car hit the garage door'

b. Juan hizo abollar el porton con el auto.
Juan made damage the garage door with the car.
'Juan had garage door damaged by the car'

c. Juan hizo abollar el auto contra el porton.
Juan made damage the car against the garage door.
'Juan had the car damaged against the garage door'

As expected the non-human causee in the '*hacer*-ACC' form results in an unacceptable sentence. The '*hacer*-POR' form is used to refer to the same situation in (37b). In this case, there is an unspecified causee that may be pragmatically associated with the NP introduced by the preposition

por 'by', which typically introduces instruments. Again, this indicates that the requirements do not come from the objective world, but from the grammar. Finally, (37c) shows a different situation; the Undergoer is the car and there is an unspecified causee. This example would show that '*hacer*-POR' and '*hacer*-DAT' have semantically unrestricted causees whereas '*hacer*-ACC' restricts them to [+HUMAN] nouns. Moreover, (37b) and (c) show that '*hacer*-POR' accept unspecified causees whereas the expression of it is required by the '*hacer*-ACC'. This is clearly consistent with the kind of difference in the semantic relationship that we are claiming. [41]

The evidence above implies that there is a specific semantic effect on the causee in the '*hacer*-ACC' construction. Such semantic effect is not found in either of the two other forms of the causative construction. Our interpretation is that such semantic influence is possible because *hacer* has direct access to the 'causee' in the '*hacer*-ACC' construction whereas this is not the case in the other two. It is conventional to express such semantic access by stating a predicate-argument relationship between both elements. We will adopt, then, a description of the '*hacer*-ACC' form which involves a different lexical Logical Structure. In such logical structure *hacer* appears as a three place predicate which assigns a thematic role to the causee via the predicate **undergo'**.

(38) [**do'** (x, ø)] CAUSE [**undergo'** (y, [ϕ (… y …)])]

The predicate **undergo'** is intended to code the affectation of the causee by the Actor of the main verb. Which are the truth conditions of such predicate? We would suggest that such affectation entails that the causee did not participate voluntarily in the embedded state of affairs.

It should be stressed that the Logical Structure in (38), which represents the meaning of the '*hacer*-ACC', and the logical structure that expresses the meaning of the '*hacer*-DAT' or '*hacer*-POR' forms differ. In the latter, the entire LS of the embedded verb is inserted in an argument slot of the main verb LS. The LS in (38) not only expresses that the embedded LS is inserted in an argument position of the main verb LS, but it also requires to the first argument of the predicate **undergo'** to be coreferential with one argument of the embedded LS. The argument of the infinitive verb that will be shared is variable. It is specified only after the voice status of the embedded verb is

[41] The examples in (30) show that the 'hacer-ACC' construction does accept unspecified embedded object and (34) shows that it does not accept unspecified causee. On the other side, the 'hacer-POR' construction accepts unspecified causees.

decided: if it is active voice the share argument will be the Actor, if it is passive voice it will be the Undergoer.

In this sense, the '*hacer*-ACC' form has the same basic semantic and behavior than other causative verbs which take the pattern 'Verb [+finite] + ACC + Verb [-finite]' like *forzar* 'force' and *obligar* 'oblige'.[42] This fact is coherent with the requirement on the causee according to which it has to be [+HUMAN]. All of these verbs have the following characteristics:

(i) the action performed on the causee does not lead to the occurrence of the embedded state of affairs;

(ii) the action of the Actor on the causee is required to make the embedded action come to existence.[43]

(iii) The causee does not perform the embedded action voluntarily.

Finally, it could be said that the Logical Structure in (38) might be replaced by another with almost the same properties except that it would be assumed that the affectation of the human causee is previous to the causal relationship directly stated by the verb between both Events. The idea would be that the effect or $Event_2$ took place as a result of the Causer affecting the causee. Consequently, the affectation of the causee would form part of $Event_1$. However, this is not crucially related to the point that we would like to make here so that we will retain the LS in (38) because it has been proved to be required independently. It was originally proposed in Van Valin & La Polla (1997) in order to capture the meaning of the English verb 'cause'.

Figure 2. Representation of sentence (5c)

[42]Interestingly, this same structure is used by 'propositional attitude' verbs; but in such case, the infinitive is introduce by a proposition ('de'), like in 'convencer de', 'persuadir de'. This preposition expresses the semantic and syntactic difference between the two verbs and in this sense, it is different from the construction involved with 'causative'-'jussive' verbs.

[43] Under any standard assumption we can interprete that the sentence

(i) Maria lo hizo a Pedro lavar el auto.
María him made to Pedro wash the car.
María made Pedro wash the car.

the Action performed by 'Maria' could lead to the actualization of the event 'Pedro lavo el auto'. The action of 'María' on 'Pedro' is needed first.

SENTENCE

CLAUSE

CLAUSE

CORE CORE

ARG ARG NUC NP NUC ARG

María lo_J hizo a $Pedro_J$ limpiar el auto

[**do'** ($María_A$, ø)] CAUSE [**undergo'**([lo_i [$Pedro_i$]$_{/U}$, [**do'** (y_i, ø)CAUSE [BECOME **clean'**($auto_U$)]]

E. The status of the '*hacer*-DAT' form

The last point that should be addressed is the status of the '*hacer*-DAT' construction. It has been shown through different examples that this construction involves a nuclear juncture. In example (16b) we saw that it allow the attachment of a clitic originating in the embedded verb to the main verb. We have taken such phenomenon ('clitic climbing') as a sign of the presence of a single core. Moreover, it seems that such upstairs cliticization is obligatory.

(39) a. Juan hizo lavarle el auto a Pedro.
Juan made wash-himDAT the car to Pedro.
'Juan made (somebody) wash Pedro's car'

In this example there is no ambiguity, the dative clitic cannot be interpreted as the causee but it has to be understood as expressing an argument of the embedded verb.[44] This would suggest, then, that upstairs cliticization is obligatory and, therefore, that nuclear juncture is obligatorily present. Moreover, it was shown in (30c) that the '*hacer*-DAT' construction does not allow a reflexive clitic

[44]I should better say 'an argument licenced by the embedded verb' because, strictly speaking, this clitic does not express a semantic argument. It is just the result of a very productive process by which it is possible to introduce dative phrases expressing the possessor/beneficiary of the event referred to by the verb.

to operate on the causee. This fact reflects the lack of an embedded verb Actor able to be the antecedent of the reflexive; which is also another clear symptom of the presence of a single core. Finally, I already showed in (31) that this subtype of the causative construction does not license the embedded verb to have an unspecified object as it is the case with the '*hacer*-ACC'. The '*hacer*-DAT' behaves then as a nuclear cosubordinate juncture. Moreover, the fact that the causee is semantically unconstrained is a piece of data from another origin that leads us to the same conclusion.

There are, however, specific instances where the construction seems to behave differently. For example, in the following sentence the main verb has been passivized and it is not obvious what the subject is.

(40) A Pedro le fue hecho lavar los autos.[45]
to Pedro him-DAT was made wash the cars.
'Pedro was made to wash the cars'

It could be the case that the infinitive verb and its complement could be acting as a syntactic argument of the main verb. We should concede that in this particular circumstance the '*hacer*-DAT' construction is acting as a core juncture: in a nuclear juncture the independent passivization of one of the members is not expected, neither it is expected the argument status of the embedded verb. It could be also interpreted that (40) is an 'impersonal' use of the passive form (with the meaning 'Pedro was permitted to wash the car'). The Actor has been removed from the core argument structure and it has been left unspecified (the addition of a 'by-phrase' (*por María* 'by María') has a low degree of acceptability). The Undergoer remains in object position expressed by the dative clitic and its co-referential NP 'a Pedro'. The passive *se* removes the Actor from its syntactic position without promoting the Undergoer to the higher syntactic function.

Thinking of the infinitive phrase as subject is not, however, exempt of counter examples. In principle, the movement of the infinitive phrase to initial position (the typical position in Spanish for subjects) is only acceptable in a marked context; namely, it is only possible if the infinitive has been 'topicalized'.

[45]The plural in *los autos* 'the cars' shows that it is not the subject.

(41) Lavar el auto le fue ordenado a Pedro.
Wash the car him was ordered to Pedro.
'Pedro was ordered to wash the car'

A much stronger case against our hypothesis is given by the impossibility of 'raising' the infinitive phrase because if it were a subject it should have been possible to raise it. In (b), on the contrary, the verb *permitir* 'allow' is shown in (b) combined with a raising verb which takes the infinitive complement as subject. In this case, the infinitive case is indeed the subject.

(42) a. *Lavar el auto parece ser hecho a Pedro.
Wash the car seems be make by Pedro.
'Somebody seems to have made Pedro wash the car'

b. Lavar los platos parece ser permitido por Juan todos los dias.
Wahs the dishes seems be allowed by Juan every day.
'Every day Juan seems to allow (somebody) to do the dishes'

The verb *permitir* exemplifies a class of verbs that includes *prohibir* 'prohibit' and *sugerir* 'suggest', among others. All of them are jussive verbs expressed via a core juncture with Undergoer control. Also, they all share the fact that the Undergoer is syntactically realized by a dative NP. These description makes '*hacer*-DAT' and *permitir* share similar meaning and syntactic pattern. Moreover, this class of verbs also allows the attachment to the main verb of a clitic originated in the embedded verb, as can be seen below. Also, (b) shows that such attachment of the clitic is obligatory; otherwise, the dative clitic is interpreted as an argument of the embedded verb and the Undergoer of the main verb is left 'unspecified'.

(43) a. Juan se lo permitió lavar anoche.
Juan him it allowed wash last night
'Juan allow him to wash it last night'

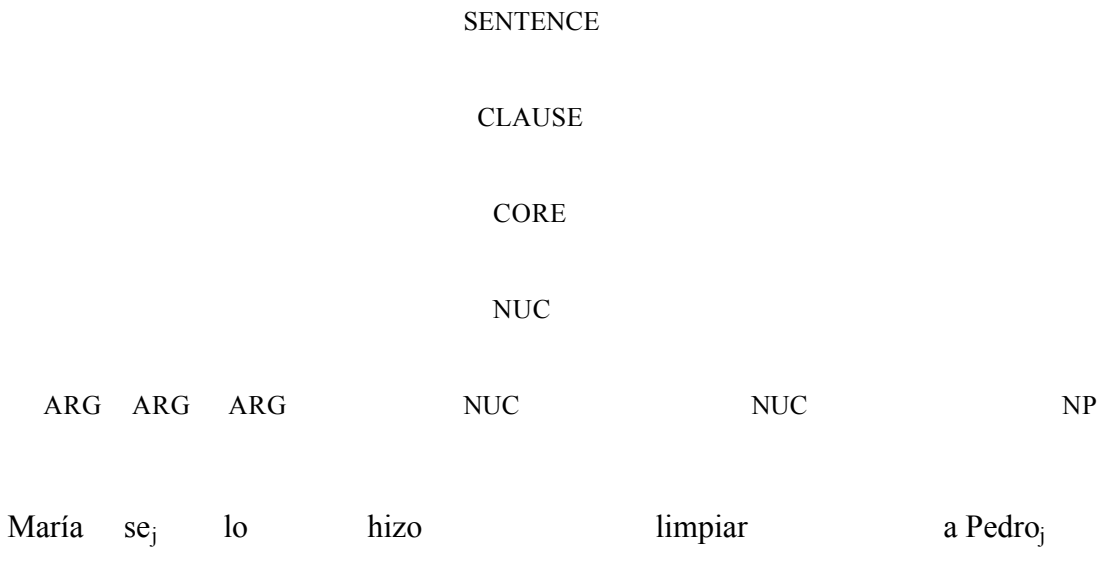
b. Juan permitió lavarle el auto anoche.
Juan allowed wash-him the car last night
'Juan allowed (somebody) to wash the car last night'

Both sentences above indicate that those jussive verbs have a very similar grammatical pattern to that of '*hacer*-DAT'. Thus, it could be possible to think that the behavior of '*hacer*-DAT' could be the result of an assimilation to this pattern. Moreover, verbs like *prometer* 'promise' or *pedir* 'ask',

which present core junctures and express the Undergoer of the main verb via a dative NP, also share the same properties even if they are Actor control structures.

However, the test in (42) prevents us to group the '*hacer*-DAT' construction with all those verbs because it does not allow raising the infinitive as a subject. Therefore, (42a) should be interpreted as an impersonal passive sentence. Even if not free of doubts, this interpretation offers a safer standpoint. If this assumption is correct, then we should keep the interpretation of the '*hacer*-DAT' construction suggested in previous sections; namely that the '*hacer*-DAT' form involves a nuclear cosubordinate structure.

Figure 4. Representation of sentence (20b)



References

Aissen, Judith, and David Perlmutter. 1983. Clause Reduction in Spanish. Perlmutter, ed., *Studies in Relational Grammar*. Chicago: University of Chicago Press. 360-403.

Alsina, Alex. 1996. *The Role of Argument Structure in Grammar. Evidence from Romance.* Stanford: CLSI Publications.

1992b. On the Argument Structure of Causatives. *Linguistic Inquiry* 23: 517-555.

Bello, Andrés. 1847. *Gramática de la lengua castellana destinada al uso de los americanos*. Tenerife: Aula de Cultura de Tenerife, 1981.

Bordelois, Ivonne. 1988. Causatives: From Lexicon to Syntax. *Natural Language and Linguistic Theory* 6: 57-93.

Comrie, Bernard. 1979. The syntax of causative constructions: cross-language similarities and divergences. In Shibatani, ed., 261-312.

1985b. Causative verb formation and other verb-deriving morphology. In Shopen, ed., Vol. III, 309-398.

Dowty, David. 1979. *Word meaning and Montague Grammar*. Dordrecht: Reidel.

Guasti, Maria Teresa .1996. Semantic restrictions in Romance Causatives and the Incorporation approach. Linguistic Inquiry 27: 294-313.

Jackendoff, Ray. 1990. *Semantic Structures*. Cambridge, MA: MIT Press.

Koenig, Jean-Pierre. 1994. Lexical Underspecification and the Syntax/Semantic interface. PhD dissertation, University of California, Berkeley.

Moore, John. 1991. Reduced Constructions in Spanish. Doctoral Dissertation, University of California, Santa Cruz.

Pollard, Carl and Ivan Sag. 1994. Head-driven phrase structure grammar. Chicago and Stanford: CUP and CSLI Publications.

Rosen, Sara Thomas. 1990. *Argument Structure and Complex Predicates*. New York: Garland Pub.

Shibatani, Masayoshi. 1976. *Syntax and Semantics, Vol. VI: The grammar of causative constructions.* New York, Garland.

Shopen, Timothy, ed. 1985. *Language, typology and syntactic description* (3 vols.). Cambridge: Cambridge University Press.

Talmy, Leonard. 1976. Semantic causative types. In Shibatani, ed., 43-116.

1985. Lexicalization patterns: semantic structures in lexical form. In Shopen, ed., Vol. III, 57-149.

1988. Force Dynamics in Language and Cognition. *Cognitive Science* 12: 49-100.

Treviño, Esthela. 1994. Las causativas del español con complemento infinitivo. El Colegio de México. Centro de Estudios Lingüísticos y Literarios. Primera Edición. Mexico, D.F.

Van Valin, Robert D. 1993b. A synopsis of Role and Reference Grammar. In Van Valin, ed., *Advances in Role and Reference Grammar*. Amsterdam and Philadelphia: John Benjamins.

Van Valin, Robert, and Randy LaPolla. 1997. Syntax: Structure, Meaning and Function. Cambridge: Cambridge University Press.

Zubizarreta, María Luisa. 1985. The Relation between Morphophonology and Morphosyntax: The Case of Romance Causatives. *Linguistic Inquiry* 16: 247-289.