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A 'direction in the influence' principle and the phenomena of coreference in Spanish*

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1. Introduction

The phenomena of infinitive formation, pronominalization and agreement have been studied separately in the literature of transformational grammar. With regard to the first, it has been stated, in a 'transformational' theory of infinitivization, that infinitives appear after rules like Equi and Raising eliminate the NP to the left of the verb in the complement sentence (Kiparsky and Kiparsky, 1968), after [PRO] subject deletion as well as after subject-verb inversion (Sauer, 1972; Roldán, 1974). In connection with pronominalization, it has been proved that this is restricted by the 'command' relation (Langacker, 1969). The study of agreement, on the other hand, suggests that, for the correct specification of the corresponding rules of agreement, we have to take into account the order and the distance between the controller and the agreeing form (Fauconnier, 1974).

This paper studies the similarity between the above three mentioned processes in Spanish. Evidence will be introduced to make the following points:

a) The analyses which relate the formation of the infinitives to the elimination of an NP to the left of the verb are insufficient. This assertion is supported by three proofs: first, it is impossible to characterize Equi as a purely syntactic process; second, [PRO] elision exhibits special restrictions; finally, when complement infinitives are followed by an NP in nominative it is inappropriate to say that subject-verb inversion has taken place.

b) The specification of the subjects of the infinitives is a logic-semantic process according to which variable bounded to infinitives are assigned values within networks of coreference. This process works differently depending on the position of the infinitive (left or right) in the tree structure.

c) The relation 'precedé' is stronger than the relation 'command' in some instances of pronominalization in Spanish.

d) 'Agreement' and 'sympathetic agreement' have a weaker effect when the agreeing form, the target, is to the left of the controller.

Once these hypotheses have been proved we will have well founded reasons to assert that the three phenomena we are considering exhibit a remarkable unity by virtue of the fact that agreement, pronominalization and infinitivization involve the presence of 'controllers' as well as the postulation of variables which are assigned values within networks of coreference. On the other hand, the strength of this operation of assigning value depends on its 'direction', i.e. on the fact that the variable falls to the left or to the right of its controller.

Our claims intend, in principle, to be neutral as to the opposition between 'interpretive' and 'generative' semantics as well as to the power of logic-semantic approaches. We guess, nevertheless, that they cannot be maintained within a syntactically autonomous theory of grammar.

2. Infinitivization

In the first part of this section we will introduce arguments in favour of the hypothesis that the infinitival subjects are specified through a process of assigning values to some variables within a network of coreference. This solution implies, on the one hand, that either indexed variables or empty nodes have to appear in deep structure and, on the other, it needs a procedure to account for the network of coreference corresponding to each verb which imposes restrictions on coreference. In the second part, we will show that the strength of the operation of assigning coreferential subjects is greater when it takes place left to right.

2.1. There is not a unique controller

The solutions which relate infinitivization with equi-NP deletion embody, among others, the following basic assumptions: there is no more than one NP in a sentence that can serve as antecedent of the complement subject and, consequently, infinitives have a univocal subject. In this sense, in Sauer's (1972) (following Rosenbaum, 1967) and Perlmutter's (1971) accounts it is assumed that the selection of the controller NP in the higher clause is based on structural principles, either the grammatical relations of subject and object or something dependent on the structure like Rosenbaum's 'minimal distance' principle.

The following sentences suggest that those assumptions are not adequate, at least with regard to Spanish:

- (1) Te invito a salir. 'I invite you to go out'
- (2) Te desafío a correr una carrera. 'I challenge you to run a race'
- (3) Te hablé de ir a México. 'He talked to you about going to Mexico'
- (4) Te propuso visitar la exposición. 'He suggested that you visit the exhibition'

In (1) and (2) the subject of the infinitive is complex, it embraces the subject and the object of the matrix sentence. This problem can be solved in a purely syntactic fashion if it is allowed the infinitival clauses to have complex subjects. On the contrary, there is no available solution for sentences like (3) and (4) within such framework. These sentences have a triple ambiguity concerning to the reference of the absent complement subject: the complement subject can be coreferential with either upper NP or with both jointly.

It is obvious, on the other hand, that the univocality or ambiguity of the meaning of the infinitival subject is determined by the meaning of the matrix verb: we cannot find an ambiguous subject in the complement of *querer* 'wish', but we always find that the complement subject in the infinitive embedded in *desafiar* 'challenge' is ambiguous. As Jackendoff (1972) points out these facts can be explained if we claim that the matrix verb sets a network of coreference which includes also the complement subject. *Desear* 'want', *querer* 'wish', *prometer* 'promise', *ordenar* 'order', *invitar* 'invite', etc would be verbs which impose a fixed network of coreference. When the matrix verb does not impose such a network any, if not all, of the controllers could be taken as subject of the infinitive. *Desafiar* 'challenge', *hablar de* 'talk about', *discutir* 'discuss', *proponer* 'suggest', etc. would be verbs of this second class.

2.2. Restrictions on PRO deletion

It has been assumed that infinitive formation has to do with the deletion of the subject when this is undetermined ([PRO] deletion):

- (5) Pasear es agradable. 'It is pleasant to take a walk'

[PRO] deletion is a general convention that accounts, for example, for the occurrence of passive sentences without agent in Spanish:

- (6) La oposición ha sido derrotada. 'The opposition has been defeated'

or for *se* sentences with undetermined subjects (Contreras, 1973):

- (7) SE alquila los apartamentos. '[PRO] rents (the) apartments'

It seems unnecessary that the formation of infinitives follows [PRO] deletion. This claim is supported by the following observations.

(i) In Spanish, infinitives with undetermined subject never appear in a VP headed by a finite verb. In the sentences below, (8) and (9), the clitic *te* could, at first sight, be interpreted either as subject or as object of the embedded infinitives. If the second interpretation were possible, [PRO] deletion would have

to be applied. However, that second meaning must be expressed in Spanish through constructions structurally different like (8') and (9').

- (8) Quiero verte ultrajar. 'I want to see you offending (somebody)'
 (9) Te ordenó asesinar. 'He ordered you to assassinate (somebody).'
 (8') Quiero verte ultrajar. 'I want to see you offended'
 (9') Ordenó que te asesinaran. 'He ordered you to be assassinated'

(ii) Infinitive clauses with undetermined subjects function, commonly, as subject of copulative expressions, emotive verbs or modals of absolute necessity:

- (10) Fumar es una costumbre insana. 'Smoking is a crazy habit'
 (11) Hablar en voz alta molesta a los demás. 'Speaking in a loud voice disturbs others'
 (12) Matar a los tiranos debería gratificarse con una pensión vitalicia. 'Killing dictators should be rewarded with a life pension'

(iii) There are many instances in which it would be impossible to determine univocally whether the infinitival subject is a function of an equi-NP deletion or of PRO deletion:

- (13) Hablar en voz alta le resulta desagradable a Juan. 'Speaking in a loud voice is unpleasant for Juan'
 (14) Contemplar puestas de sol le parece interesante a María. 'Looking at sunsets seems interesting to María'

Observe that *resultar desagradable* and *parecer interesante* are verbs which trigger obligatorily backward equi-NP deletion in an environment identical to (13) and (14):

- (15) Escribir el libro le resulta desagradable a Juan. 'Writing the book becomes unpleasant for Juan'
 (16) Cocinar todos los días le parece interesante a Julia. 'Julia finds interesting cooking every day'

Of course, in (15) and (16) it is impossible to interpret the subject of the infinitive as unspecified, although *escribir* and *cocinar* are action verbs like *hablar* and *contemplar*. Any other mysterious reason, further away from the structural configuration or the meaning of the items, must explain these differences.

The kind of evidence we have just provided says that if we resort to [PRO] deletion to account for infinitives with unspecified subjects we will have to

impose an undesirable set of conditions on a rule (or convention), establishing them just for the cases in which the rule applies to the subject of complement subject sentences. This can be avoided, as we shall see, if we assume that unspecified subjects are results of a network of coreference within which all of the infinitives are given a subject.

2.3. Are there infinitives with expressed subjects?

The existence of infinitives with expressed subjects in nominative constitutes a clear counter-example for the hypothesis we have been arguing for. On the contrary, those who claim that infinitives are a function of the elimination of the branch subject to the left of the verb (Roldán, 1974)⁴ find a corroboration of their thesis in the fact that those 'subjects' appear always following the infinitive:

- (17)a. Ir yo a verte va a ser imposible. 'It will be impossible for me to go to see you'
 b.* Yo ir a verte va a ser imposible.
 (18)a. Querer María salir e impedirlo su marido es cosa de todos los días. 'María's wanting to go out and her husband's preventing it is an everyday occurrence'
 b.* María querer salir y su marido impedirse-
 lo es cosa de todos los días.

In our opinion, nevertheless that refutation does not hold since in constructions like (17) and (18) the NP or pronoun located to the right of the infinitive does not have to be its subject. Our assertion is supported by the following considerations.

(1) If the normal rule of subject-verb inversion were applied in (17b) and (18b), the corresponding sentence with finite verb should also be grammatical. (19) and (20) show this not to be the case:

- (19)* Voy yo a verte va a ser imposible
 (20)* Quiere María salir y se lo impide su marido es cosa de todos los días.

(ii) In Meyer (1972) it is argued that the SV0 order can be replaced by a VSO order only when the subject is not definite. Compare, for example, (21a) with (21b),

- (21)a.* Se ha comido el niño la manzana. 'The child has eaten the apple'
 b. Se ha comido un niño la manzana. 'A child has eaten the apple'

In the construction we are studying this restriction does not hold. In fact, the 'inverted subject' can be definite.

- (22) Comerse el niño un trozo de jamón no del todo curado fue lo que le afectó el estómago. 'The child's eating a chunk of jam

which was not completely cured was what affected his stomach'

This piece of evidence, together with the preceding one, shows that sentences where subject-verb inversion has been applied, e.g. (21b), and infinitives followed by a nominative NP are unrelated and, perhaps, structurally distinct.

(iii) Another striking fact about these constructions is that their generation is very restricted. Identical sentences exhibit very different degrees of acceptability just with a changing of the so called subject. Observe, for example, the sentences of (23), parallel to (17a), and compare the resulting scale of grammaticality with that of (24).

- (23)a.?? Ir ella a verte va a ser imposible. 'It will be impossible for her to go to see you'
 b.? Ir nosotros a verte va a ser imposible. 'It will be impossible for us to go to see you'
 c.* Ir tú a verte va a ser imposible. 'It will be impossible for you to go to see her'
- (24)a. Decidir yo la venta de la casa es lo que debería hacer. 'The decision to sell the house is what I have to make'
 b.?? Decidir ella la venta de la casa es lo que debería hacer. 'The decision to sell the house is what she has to make'
 c.? Decidir tú la venta de la casa es lo que deberías hacer. 'The decision to sell the house is what you have to make'

(iv) In general, these 'infinitive + subject' constructions function as subjects of certain copulative predicates (*es importante* 'is important', *es habitual* 'is customary', *es necesario* 'is necessary', *es mejor* 'is better', etc.) and emotive verbs (*molestar* 'disturb', *de gustar* 'annoy', *afectar* 'affect', *alegrar* 'gladden', etc.) all of which admit complements in the predicate, either benefactive datives or relative clauses:

- (25) Esto es imposible (para él). 'This is impossible (for him)'
 (26) Esto le molesta (a él). 'This is what disturbs him'
 (27) Esto es lo que ella debía haber hecho. 'This is what she had to make'

If the NP's to the right of the infinitives in (17a), (18a), (22) and (24) were their subjects (and since forward pronominalization is unrestricted) they could be the appropriate controllers for the pronominalization of the NP governed by *a*, *para*, etc. Nevertheless, it is not usual, even though this not cause ungrammaticality, that datives be present when the coreferential term appears with the infinitive:

- (28) Ir yo a verte es imposible ?(para mí)
 'It is impossible for me to go to see you'
 (29) Querer Marfa salir e impedirselo su marido es cosa de todos los días ?(para ellos).
 'Marfa's wanting to go out and her husband's preventing it is an everyday occurrence'

In fact, the most common situation is that where if the benefactive appears the subject does not, or viceversa.

In summary, the points (i)-(iv) above show that there are factors of behaviour under certain transformations, constituent-structure characteristics and reasons of semantic interpretation which force us to assert that complement infinitives with expressed subjects do not exist in Spanish. More precisely, these reasons suffice to establish that infinitives followed by an NP or a nominative pronoun and finite verbs followed by their subjects are structurally distinct. These differences amount to saying that the NP or pronoun which accompanies an infinitive is not its deep subject but the product of later rules, which we have not yet investigated.

2.4. All the preceding evidence makes clear the hypothesis that the determination of the subject of the infinitives is a function of networks on coreference. We claim also that this attribution of reference is restricted by the following principle, i.e. that in the grammar of Spanish exists a principle related to coreference:

- (30) 'Direction in the influence' principle (DIP)
 (preliminary and informal version)

'In a phrase-structure marker in which one or more expanded NP's (the controllers) precede one or more variables (targets), the latter are filled obligatorily with the meaning of one of the preceding NP's. The distribution of values is fixed when the verb determines a network of coreference, free when the verb does not determine such a network. If the variable precedes the expanded NP's, the attribution of meaning is not obligatory'.

This principle accounts for some of the restrictions of the rules (or conventions) which assign coreference in relation to infinitives in Spanish. Consider, for example, sentences like (31) vs. (32):

- (31) Estudiar matemáticas le parece odioso a Jaime. 'Jaime finds studying mathematics detestable'
 (32) Pepa y yo discutimos (sobre) estudiar matemáticas en París. 'Pepa and I discussed studying mathematics in Paris'.

In (31) the subject of the infinitive can be either undetermined or coreferential with *Jaime*. The

infinitive of (32) has a subject coreferential with either of the upper NP's or with both together. The principle, then, explains why Equi is not obligatory when the controller is to the right of the variable-target.

As we have seen in 2.2. above, in case we accept a convention like [PRO] deletion we will have to impose on it restrictions related to their application to complement sentences just when they are in the subject of a finite verb. This is predicted by our DIP. If backward attribution of coreference is not obligatory some of the variables bounded to infinitives will not receive any meaning, i.e. they will not be coreferential with any NP present in the sentences. A general convention could say that variables which are not assigned any value are undetermined.

3. Pronominalization: a paradox

Although the phenomena of pronominalization in syntactically autonomous theories are accounted for by different analytical devices from those utilized in a semantic or logic-semantic approach, in all of these frameworks an interaction between a controller and a target is presupposed. A factor of 'direction' has to be taken into consideration in all of these frameworks as well.

A theory in which there is a transformation called Pronominalization which, under certain configurational conditions, converts one of a pair of like-indexed NP's to a pronoun, as well as the one in which an operation that copies the pertinent features of expanded NP's onto unexpanded indexed coreferential NP's is assumed, have to be constrained as to the way these operations act when the controller is to the right of the target. Langacker's command relation, Postal's (1971) cross-over constraint and Fauconier's 'proximité' principle are different ways of constraining backward pronominalization. The command relation is also preserved in an interpretive theory in which pronouns are present in deep structure and it is assumed that rules of semantic interpretation establish relations between pairs of NP's marking them coreferential or non-coreferential with each other.

In this section we will discuss the function of these constraints with regard to one sentence of Spanish. We will argue that the 'precede' relation cannot be linked with 'command' because 'precede' seems to be stronger than the command relation.

The command relation is defined as follows, "We will say that a node A commands another node B if (1) neither A nor B dominates the other; and (2) the S-node that most immediately dominates A also dominates B" (Langacker, 1969: 167).

Given this relation, in a transformational theory of pronominalization the corresponding transformation can be stated roughly as

- (33) $NP^2 =_{OB} \Rightarrow [+PRQ]$ if NP^1 is identical with NP^2 and if NP^2 does not both precede and command NP^1 .

The resulting paradigm in Spanish is illustrated in (34)-(41):

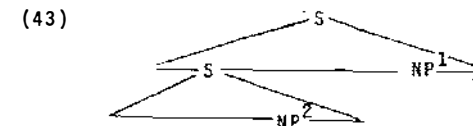
- (34) Enrique dice que él le avisará⁵. 'Enrique says that he will inform him'
 (35) Susana se lava. 'Susana washes herself'
 (36) El fontanero que Pepe contrató dice que él no tiene los instrumentos necesarios. 'The plumber that Pepe hired says that he doesn't have the necessary tools'
 (37) Carmen sostiene que su nueva casa es excesivamente oscura. 'Carmen claims that her new house is extremely dark'
 (38)* El dice que Enrique le avisará. 'He says that Enrique will inform him'
 (39)* Sus ojos son un placer para María. 'Her eyes are a pleasure for María'
 (40) El profesor que él visitó dice que Pepe es tonto. 'The profesor who he visited says that Pepe is silly'
 (41)* Ella sostiene que Juana está divorciada. 'She claims that Juana is divorced'

The above examples (34)-(37) illustrate forward pronominalization. Examples (38)-(41) are instances of backward pronominalization in structures which parallel those of the four preceding sentences. These sentences show that with the antecedent to the left pronominalization is generally possible. When the antecedent is to the right the pronoun must not command the antecedent. For this reason (38), (39) and (41) are ungrammatical (unless the pronoun is interpreted as non-coreferential) such as is predicted by rule (33). In (40) where the pronoun does not command the antecedent pronominalization takes place.

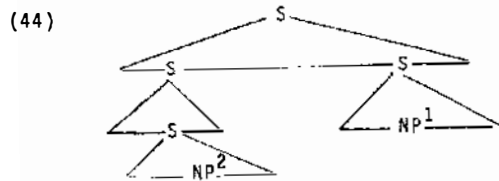
Sentences such as

- (42)* La chica que entregó su coche a la policía fue saludada efusivamente por Pedro. 'The girl who brought his car to the police was greeted warmly by Pedro'

show, nevertheless, that the command relation is not sufficient to explain all cases of backward pronominalization in Spanish. In the tree structure corresponding to (42) - (43) - the target, NP^2 , precedes the controller, NP^1 , but NP^2 is higher in the tree than NP^1 , i.e. NP^2 does not command NP^1 ,



One could think that the difference in grammaticality² with regard to (40) is due to the fact that in (42) NP² is in a lower echelon of embedding than NP¹ while in (40), where NP² also does not command NP¹, both NP's are in sentences with the same depth of embedding. This explanation fails for many reasons. First, the relative depth of embedding is an irrelevant factor when NP² follows the controller (see (34)-(37)); second, in a tree structure like



NP¹ may be used to pronominalize NP² as sentence (45) illustrates.

- (45) La mujer que dijo que lo amaba admitió que Ricardo era insoportable. 'The woman who said that he loved him admitted that Ricardo was unbearable'

Even more, the proposed explanation simply becomes irrelevant when we analyze sentences like (46) and (47).

- (46) El policía que dijo haberlo visto no reconoció a Mario en el juicio. 'The policeman who claimed to have seen him didn't recognize Mario at the trial'
- (47) El gurú que le da clases saludó a Sofía con una reverencia. 'The guru who teaches her greeted Sofía with reverence'

In most dialects of Spanish the underlined pronouns of sentences (46) and (47) have two interpretations, coreferential and non-coreferential with the following NP. (46) and (47) suggest, then, that the command principle could be salvageable if we resort to other well-motivated means of excluding sentence (42). For example, it might seem that the cross-over principle would be applicable to (42), since this is a passive sentence. But this principle would be pertinent only if the order of application of 'Passive' and 'Pronominalization' were the following:

Passive
Pronominalization

as the principle makes reference to the notion of pronominal 'virgin' (op.cit.:145), and, consequently, cannot restrict a rule which follows pronominalization. Sentences like

- (48) La persona que los conocía entregó a Luis y Marta un ejemplar del Quijote. 'The person who knew them gave Luis and Marta a copy of the Quijote',

on the other hand, show that both rules are unordered in relation to each other, i.e. any order of application of both rules gives a correct output.

A paradox appears now. A sentence like (49) assumes that, in order to preserve the command relation as a restriction on pronominalization, passive has to be ordered after pronominalization.

- (49) Un ejemplar del Quijote les fue entregado por la persona que conocía a Luis y Marta. 'A copy of the Quijote was given to them by the person who knew Luis and Marta'

In (49) *les* can be either coreferential or non-coreferential with *Luis and Marta*. (49) is (50) in the underlying structure.

- (50) La persona que conocía a [Luis y Marta] entregó a [Luis y Marta] un ejemplar del Quijote.

If we apply Passive before Pronominalization we obtain a tree structure in which NP² commands NP¹, so, NP¹ will not be able to pronominalize NP² and the coreferential interpretation will never be obtained. Only applying pronominalization before passive can we get the coreferential interpretation. In summary, to preserve the formulation of pronominalization we have to adopt the order

Pronominalization
Passive

But if we go back to our sentence (42) we will see that this very argument tends to be against the salvageability of the command principle. The ungrammaticality of this sentence cannot be explained saying that it is a consequence of a violation of the cross-over constraint because the cross-over principle will not affect rules which apply after pronominalization, i.e. Passive.

Perhaps there is an otherwise well motivated principle, unknown to us, which could explain the ungrammaticality of (42). Nevertheless, pronominalization being, on the one hand, a phenomenon which embodies controllers and targets and, on the other, an operation that works in two directions, why can we not think that pronominalization is submitted to the same principle of 'direction in the influence' at work in the in some way similar process of infinitivization? Perhaps, in this case, the principle has to do with the fact that in the rule of pronominalization the 'precede' relation is stronger than the 'command' relation, i.e. it will predict that there could be cases in which an NP² which precedes NP¹ might not

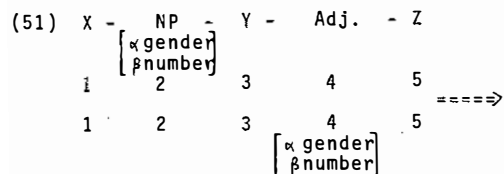
be pronominalized by the second event though it is not commanded by NP^c. Observe, moreover, that sentences which we have been using crucially to argue for or against the relevance of command (i.e., (42) and (48)) because of coreferential interpretations are opposed depending on the relations of coreferentiality they hold. This fact, again, relates pronominalization to infinitivization. Left to right processes are clear and well defined. Right to left processes present a decrease in their obligatory nature.

4. Agreement

Adjectives in Spanish undergo gender/number (G/N) agreement with NP's in certain environments. There seems to be in Spanish also a handful of 'adjectives' which, similar to Italian, are submitted to a principle of 'sympathetic agreement' (Napoli, 1975). In this section we will discuss both the rule of agreement and the principle of sympathetic agreement to show that they have to obey special restrictions when the target adjective, or adjectival, is put to the left of the agreement's trigger.

4.1. Right to left agreement

4.1.1. Given any of the well known theories according to which prenominal and postnominal adjectives are transforms of relative clauses (Cressey, 1966; Luján, 1972) it becomes obvious that G/N agreement is a rule which copies onto adjectives the gender and number features of a preceding NP or pronoun:



Within these accounts, how can the ungrammaticality of sentences like

- (52) * Viste los negros vestido y el sombrero.
'She wears the black dress and the (black) hat'

be explained versus the grammaticality of (53)?

- (53) Viste el vestido y el sombrero negros.

I suspect that the most accepted solutions will say that the order of application of the relevant rules to derive (53) will be the following. First, Coordinate deletion will reduce the NP's where *negro* appears twice, immediately Agreement will add the plural feature onto the adjective, and finally

the relative clause will be reduced and the adjective placed in its surface position. The derivation of (52) will be identical except in one respect: the relative clause appearing in its deep structure will be appositive instead of restrictive. We don't see any principled way of avoiding a sentence like (52) being generated besides imposing an ad hoc restriction on the last rule saying that the adjective cannot cross over a conjunct, or some similar statement. The same restriction will hold for cases of symmetric predicates, since sentences like (54a) are possible but not those equivalent to (54b).

- (54)a. Consideraron las soluciones y los problemas parecidos. 'They considered the solutions and problems which were similar'
b.* Consideraron los parecidos soluciones y problemas. 'They considered the solutions and problems, which were similar'

The restriction we have mentioned is just a way of restating the fact that a sentence with the meaning

- (55) Consideraron las soluciones y los problemas; las soluciones no se distinguían casi nada de los problemas. 'They considered the solutions and problems. The solutions were almost undistinguishable from the problems'

cannot be expressed in Spanish through one structure in which an adjective enters in construction with two NP's to its right; while the meaning

- (56) Consideraron sólo las soluciones y los problemas que eran semejantes, no los diferentes. 'They considered only the solutions and problems which have something in common'

can be expressed via a construction 'NP and NP _[+p, +a] Adj_[+p, +a]'

An interesting alternative derivation of prenominal adjectives has been proposed by Luján (1973). She claims that this type of adjective comes from an underlying structure where the adjective is the head of an adjectival phrase. In the deep structure that she proposes the adjective is generated in the VP preceding a 'Manner' where the (surface) subject NP is introduced. Thus, giving this underlying structure, an agreement rule inverse to (51) will have to be written. This rule will be, perhaps, a mirror-image of (51) and it will include a condition saying that the NP cannot be an 'A over A' node. Both approaches, then, lead to different conclusions. In one case we find a constraint on a movement rule; in the other right to left agreement obeys different constraints than left to right agreement. Let us consider other facts of agreement to see whether we can shed some light on this matter.

4.1.2. Through the analysis of other facts of Spanish we can easily see that agreement from right to left seems to be constrained by a principle of influence. Compare (57) with (58).

- (57)a. Cada uno de los asistentes bostezó.
sg.
aburrido. 'Each one of those present
snored in boredom'
b. Los asistentes bostezaron ,cada uno,
pl.
aburridos.
- (58)a. Aburridos, cada uno de los asistentes
pl. sg.
bostezaron.
b. Aburrido, cada uno de los asistentes
sg. sg.
bostezó.

In (57) agreement depends on the features of the adjective's cyclic subject. This is why we find different results before -(57a)- and after -(57b)- the application of Each movement. We do not know whether the derivation of (58) would be different from that of (57) but if we want to assume a single solution for agreement we will be forced to say that the principles which govern this process are relaxed or weakened when the controller, the cyclic subject, is to the right of the target, i.e. when agreement takes place in a right to left direction. This statement would also predict, I guess, the facts of (52)-(54) since in the derivation of (52) the influence of the conjunct will be weaker than in the derivation of (53).

4.2. Sympathetic agreement

Napoli(1975) states a principle operating in Italian agreement rules. This principle, called 'sympathetic agreement', accounts for all cases of obligatory agreement of adjectives. For example, in (59), a sentence in which the adjective *lento* occurs, agreement is optional:

- (59) María habla lenta/lento. 'María speaks slowly'

while in (60) it is obligatory:

- (60) María habla fina pero lenta/ *lento.
'María speaks in a refined manner but slowly'

The principle governing G/N agreement rules which explains the difference between (59) and (60) is the following.

- (61) 'Sympathetic agreement'
"If an agreement trigger NP or pronoun triggers agreement on an agreement target, then all of the trigger's targets must undergo agreement" (op.cit.:427).

This means that once a G/N rule applies, then agreement will appear on every G/N target adjective or adverb of the given G/N trigger.

In Spanish, like in Italian, the principle of sympathetic agreement fails to apply, or apply in a more questionable way, in sentences like (62) where the adjective falls to the left of *lento* :

- (62) María habla lento/lenta pero fina.

It seems, again, that right to left is a less strong influence than left to right.

5. A 'direction in the influence' principle and the phenomena of coreference.

The data we have been considering as well as the complex series of theoretical issues we have brought up around them might shape just a confused puzzle unless we try to introduce some order among them.

Before trying to reach a unitarian formulation it could be, perhaps, useful to ask ourselves about the nature of the restriction we are considering. It seems obvious, at least for us, that the restrictions or abnormalities we have been considering cannot be subsumed under a unique deep structure constraint nor under a surface structure one. To be the first kind of filter it would be necessary for the base of the grammar not to generate structures where variables appear to the left of the controllers; to be one of the second kind the constraint should refer, among other things, to specific lexical items. It is clear, then, that we are talking about a constraint on the transformations. In fact, about a constraint on the principles and rules which govern coreference. Nevertheless, it seems very difficult, if not impossible, to say how these operations are restricted since we have found abnormalities which have to do with very different structural configurations, the fact of being posited with controllers and targets appearing as the only important common characteristic of all this structures.

All this could suggest, consequently, that we are not in front of an independent absolute principle of the grammar of Spanish but just that we have been handling a set of restrictions that should be built independently into some of the rules of coreference in Spanish.

It seems to us, however, that a unitarian formulation can be reached if we understand the facts of 2, 3 y 4 not as expressing a regular constraint on transformations but a tendency related to the obligatory/optional nature of the principles and

rules which explain coreference in Spanish. The tendency-principle we want to formulate is the following:

'Rules and principles of coreference which are obligatory when the controller precedes the target, in the stage of a derivation in which such rules and principles apply, become optional when these elements occur in the inverse order'

This tendency can be brought to its limit making a rule not to apply at all as in the cases of adjectives preceding conjoined NP's. On the other hand, it can explain the suspension of the command relation when this conflicts with the 'precede' relation, as we have seen in some cases of backward pronominalization.

6. Conclusion

The Spanish data we have considered reveal that coreference cannot be studied in this language without taking into consideration factors of direction. This data call also for principles relatives to tendencies. Whether this kind of device is necessary for other parts of the grammar and the way it interacts with regular constraints are questions that have to be answered.

Footnotes

* I would like to thank Juan Delyal for the encouragement and help he gave me during the writing of this article. My thanks also to John Dermody and Arturo Ugalde for their collaboration in the improvement of my English.

¹ The reader will be thinking by now that we do not consider the facts of 'Raising'. The first and basic reason is that it is not clear that 'raising to the object' is a rule of Spanish (see Demonte, 1975). Besides this, Raising can be stated as a rule which moves variables along derivations. In this sense the existence of Raising does not, in principle, falsify our hypothesis.

² The fact that we speak of networks of coreference imposed by the matrix verb does not mean that we are, definitely, favorably disposed to a theory which treats these questions via interpretive rules which fill empty nodes. In Demonte (1975) some of the problems which interpretive theories raise are brought forward. It is argued there that if the interpretation of coreference is placed at the end of each syntactic cycle, and since Passive and Object formation should be cyclic rules, the following sentences (i) and (ii) (different in meaning) should come from the same deep structure:

- (i) Marfa quiere que Pepe se considere guapo.
'Marfa wants Pepe to consider himself handsome'
(ii) Marfa quiere ser considerada guapa por Pepe.
'Marfa wants to be considered beautiful by Pepe'

³ *Ordenó asesinarlo* 'He gave the order to kill you' is, in some dialects, a counterexample to this statement. We do not know any other verb, besides *ordenar* 'order', which can allow this construction. Moreover, verbs of its same semantic class do not accept [PRO] deletion in the predicate they head, e.g. *rogar* 'pray', *suplicar* 'supplicate', *pedir* 'ask', etc.

⁴ Roldán (1974) considers infinitive clauses equivalent to adverbial sentences:

- (i) Al caer Constantinopla empezó la Edad Media.
'When Constantinopla fell the Middle Ages started'

As far as we know, the underlying structure of Spanish adverbial sentences has not been investigated at all. This is why we do not consider sentences like (i) contradictory with our hypothesis, which speaks of 'complement infinitives'. (Unless we accept the unjustified idea that all infinitives come from the same deep structure).

⁵ The underlined forms are understood as coreferential. The * means that a coreferential interpretation between the pronoun and the NP is not acceptable.

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Eppur se muove

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J'aimerais m'adresser à la question du statut du clitique, en particulier, du pronom clitique dans le cadre d'une grammaire universelle. Pour faire ceci, j'examinerai les implications de plusieurs propositions qui tendent à établir l'équivalence entre un pronom clitique et une marque d'accord. Je pense à certains travaux récents, entre autres Givón (1971 et 1976), Keenan (1972), et Moravcsik (1974), et une étude du québécois que j'ai réalisé en collaboration avec H. Larue (Ford & Larue, 1975). Tout en énumérant les avantages de ces approches, que malgré leurs différences intrinsèques j'appellerai collectivement l'analyse morphologique des clitics, s'opposant ainsi à l'analyse syntaxique classique de Kayne (1969) ou Emmons (1975), je développerai un troisième point de vue, lequel s'inspire d'une petite remarque dans l'introduction Aronoff (1976) où il suggère que peut-être les clitics constituent un no-mans-land entre la syntaxe et la morphologie flexionnelle. Point de vue qui trouve un appui solide du côté de la diachronie cf. les travaux de Givón (voir bibliographie).

Regardons d'abord les arguments qui pèsent en faveur de l'analyse morphologique. L'on peut voir clairement la motivation derrière cette approche en comparant les paradigmes clitics des verbes intransitifs du français et ceux de n'importe quelle autre langue romane. Le genre de comparaison que j'ai en tête est illustré dans (1).

(1)	Québécois	Castillan
	(Moi), je vote	(Yo) vot-o
	(Toi), tu votes	(Tu) vot-as
	(Lui), il vote	(El) vot-a
	(Elle), a vote	(Ella) vot-a
	(Nous autres), on vote	(Nosotros) vot-amos
	(Vous autres), vous vot-ez	(Vosotros) vot-áis
	(Eux autres), ils votent	(Ellos) vot-an

Traditionnellement un élément du paradigme (je, tu, il, etc.) du français est analysé comme étant dominé par un noeud et comme ayant le statut indépendant de pronom ou clitique. Par contre les éléments du paradigme espagnol (o, as, a, etc.) sont communément dénommés les marques d'accords et la grammaire en tient compte moyennant un transfert de traits du SN sujet au verbe. Ensuite, préalable au passage de la dérivation à travers la compo-