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COREFERENTIAL SUBJECTS AND SUBJACENCY

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I. Introduction

The contrast in the strength of the Complex Noun Phrase Constraint (henceforth the CNPC) between CNPs that are complements to modal verbs such as make, have, etc. and CNPs that are complements to ordinary verbs such as discuss first noted by Ross (1967) has been discussed by many authors since. This contrast is shown in (1).

(1)a) Who did Adrian make the claim that Tom saw t ?

What did you have a chance to sell t ?

What did you have hopes that Joe would sell t ?

What did you make a proposal that Tom should sell t?

b)* Who did Adrian discuss the claim that Tom saw t?

Some have proposed that the modal verbs undergo reanalysis with the head of the CNP to form a complex verb which has the embedded clause as its complement. On this analysis (1a) is just like examples with extraction out of embedded complement clauses such as (2), which are grammatical.

(2) Who did Adrian claim that Tom saw t ?

Grosu (1977) has however shown that such an analysis is implausible in light of the fact that the noun complements in (1a) cannot be preposed in the way complements of simple lexical verbs can be, as seen in (3).

(3)a)*That Bill may be a thief noone has ever made the claim t.

That Bill may be a thief noone has ever claimed t.

b) * That Bill may be a thief which noone has ever made the claim t , happens to be true.

That Bill may be a thief which noone has ever claimed t, happens to be true.

In this paper I propose that the reason for the weaker islandhood of (1a) is that in such examples with modal verbs the nominalization claim has 2 arguments, the noun complement clause and a subject PRO argument which is controlled by the matrix subject. In (1b) on the other hand claim has no arguments and behaves like a non-deverbal noun and the usual CNPC is in operation.

Wh-islands and adverbial adjunct clause islands, and parasitic gap clauses have been observed to be weaker due to the presence of a controlled PRO in the subject position of the island clause. I propose that these island violations are also attributed to the presence of a controlled PRO which makes for a closer relation between the matrix and embedded clause.

I suggest also that the indexing mechanism used by Finer (1984) to account for the behavior of switch reference can be modified to account for these island phenomena.

II. Two kinds of nominalization

As Lebeaux (1986) has shown, nominalizations can only have an agent external argument if they have a realized internal object argument. Thus in (4) the external

 1. I would like to thank Edwin Williams, Peggy Speas, Rejean Canac-Marquis, Tom Roeper, and Juan Uriagereka for valuable discussion of the ideas presented in this paper

COREFERENTIAL SUBJECTS AND SUBJACENCY

argument John can be the agent in (4a) but not in (4b) where there is no realized object argument.

- (4)a) John's destruction of the city
(agent)
- b) * John's destruction
(agent)

This generalization breaks down for certain nominalizations such as criticism where a prenominal genitive can have the agent θ -role even when no object argument is present i.e. John's criticism is good with the agent reading. Lebeaux (1986) however shows that in these nominalizations the prenominal genitive doesn't have a true θ -role relation to N as it does for nominalizations such as destruction. I discuss this later in this paper.

On Lebeaux's account only if a theme argument is expressed post-nominally is the prenominal argument allowed to be realized. So if there is a realized prenominal argument then there must be a postnominal realized argument to have allowed it. Thus the NC must be an argument and not merely an adjunct in (1a).

Thus the presence of the agent argument of claim in (1a) which is forced by the nature of the verb make in turn forces the CP complement of claim to be a true θ -marked complement. If the agent θ -role is not forced to be realized by the verb (as in the examples with the verb discuss in (1b)) the object θ -role is not forced to be realized in order to satisfy Lebeaux's principle.

I propose that claim can have either 2 arguments as in (5a) or can have 0 arguments as in (5b). The difference between (1a) and (1b) is then that make in (1a) subcategorizes for the 2 argument claim but discuss in (1b) subcategorizes for the 0-argument claim. Thus the N in (1a) is a process nominal with an agent argument and a noun complement which is a theme argument and the NP in (1b) is a result nominal with no arguments. The noun complement is an appositive adjunct which does not behave as a θ -marked

2. This may be problematic since normally subcategorization does not look inside to the argument structure of the element subcategorized for. For lack of space I put this issue aside here.

complement.

(5) a) claim <agent, theme>

b) claim < 0 >

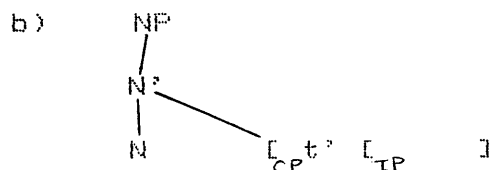
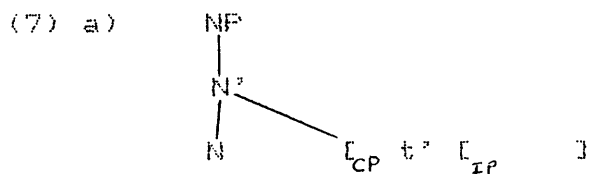
As Stowell (1981) has shown, certain noun complements (henceforth NCs) are not necessarily θ -marked. In fact tensed NCs such as those in (1a) are taken to be not true θ -marked complements but appositive adjuncts by Stowell in contrast to infinitival NCs which are θ -marked. This difference is demonstrated in (6) where tensed NCs behave like appositives in (6a) but infinitival NCs as in (6b) do not.

(6)a) The claim was that Joe was arriving

b) * The attempt was to climb the mountain

I propose that some tensed NCs such as those in (1a) are like the infinitival NCs in (6b) and are θ -marked by N but that the NCs in examples like (1b) are not θ -marked.

Since the NC in (1a) is θ -marked it must be head governed and it is a sister to N. Thus the intermediate trace of Wh-movement in SPEC(CP) is head governed and satisfies the ECP. In (1b) on the other hand the NC is an adjunct attached to NP and its SPEC(CP), and hence the intermediate t' of wh-movement in SPEC(CP), is not head governed and violates the ECP. The structures are shown in (7).



The contrast in extractability in (1) can then be accounted for as due to this difference in θ -marking of the noun complement between the two cases. In (1b) the noun complement is not θ -marked and is therefore a BC and a barrier and passes barrierhood on to NP. Thus

COREFERENTIAL SUBJECTS AND SUBJACENCY

extraction of a wh-phrase from within the noun complement violates Subjacency and (1b) is ungrammatical. In (1a) on the other hand the noun complement is θ -marked and is therefore not a blocking category (BC) and does not pass barrierhood on to NP. Thus no barriers are crossed in wh-extraction and (1a) is correctly predicted to be grammatical, an exception to the usual ungrammaticality of wh-extraction out of complex NPs.

We would expect on this account that extraction should be easier from noun complements which are θ -marked as shown by Stowell's test as shown in (5). This prediction is borne out as we see in (8).

- (8)a) Who did Joe hear about the attempt to talk to t ?
 b) Who did Joe hear about the refusal to talk to t ?
 c) Who did Joe hear about the proposal to talk to t ?

The validity of this analysis is confirmed by the fact that the NC objects of make and discuss also differ in the optionality of the complementizer that in their NCs as was pointed out by Ross (1967). In (9a) the complementizer is optional but in (9b) it is obligatory.

- (9)a) Adrian made the claim (that) Tom was coming
 b) Adrian discussed the claim *(that) Tom was coming

As in the analysis of Stowell (1981) and Aoun et al. (1988) this can be accounted for due to a difference in head government. In (9a) the head N governs SPEC(CP) so that an empty complementizer is properly governed for the ECP but in (9b) it is not and the complementizer is hence obligatory.

This account of the contrast in extractability in (1) is the same as the account of the contrast in extractability between bridge and non-bridge verbs that we see in (10).

- (10)a) Who did Adrian say [t' that [Tom saw t]] ?
 b) *Who did Adrian murmur [t' that [Tom saw t]] ?

These can also be accounted for as due to t' satisfying the ECP in (10a) but not (10b) since as seen in (11) the complementizer that is optional in (11a) but obligatory in (11b).

(11)a) Adrian said (that) Tom saw the men

b) Adrian murmured *(that) Tom saw the men

We also see this correlation between optionality of the complementizer and extractability in (12) and (13) from Aoun et al. (1988).

(12) a) Who was it apparent yesterday [[e that]Kay saw e]

b) The woman (who) Fay likes has arrived.

c) The woman has arrived *(who) Fay likes

(13)a) The crowd is too angry [PRO to organize a meeting]]

b) What is the crowd too angry[t' [PRO to organize e]]

(13a) is ambiguous between the reading where the subordinate clause is head governed and PRO is controlled by the crowd and the non-head governed reading where PRO is arbitrary. (13b) however can only have the control reading since t' must be head governed to satisfy the ECP.

III. Exceptions to the Wh-Island Condition and the Adjunct Condition

My analysis accounts for the exceptional transparency of (1a) as opposed to (1b) as due to the presence of a PRO in (1a) but not in (1b). The same difference can be shown to account for the contrasts in parasitic gap (henceforth PG) sentences and Adjunct Condition (henceforth AC) violation sentences in (14)-(16) and the wh-island (henceforth WHI) and CNP sentences in (17)-(18).

(14)a) Which food did you eat t [without [O [PRO cooking e]]] ?

b) *Which food did you eat t [without [O [Bill cooking e]]] ?

(15)a) Who did you go to England [without [t' [PRO talking to t]]] ?

b) *Who did you go to England [without [t' [Bill talking to t]]] ?

COREFERENTIAL SUBJECTS AND SUBJACENCY

67

Spanish also shows contrasts such as these in (16) as noted by Bordelais (1986).

(16)a) El artículo que lei t [antes de [O [PRO corregir e]]]

'The article that you read t before PRO correcting e'

b)*El artículo que lei t [antes de [que [Juan hubiera corregido e]]]

'The article that you read t before that Juan had corrected e'

PROs which are coreferential with a higher NP licence CNPC and Wh-island violations in the (a) examples of (17)-(18) but subject NPs disjoint from any other NP don't license such island violations as shown in the (b) examples.

(17)a) To whom did Joe wonder [what [PRO to give e e]]

b) * To whom did Joe wonder [what [John gave e e]]

(18)a) El premio que perdimos [la esperanza de [[PRO ganar t]]]

'The prize that we lost hope of PRO winning t'

b) * El premio que perdimos [la esperanza de [que [Maria ganara t]]]

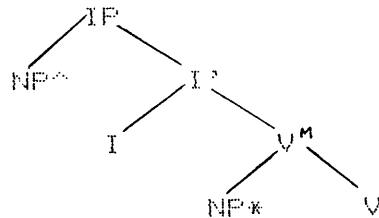
'The prize that we lost hope of Maria winning'

One way to account for these contrasts is to maintain that wh-movement obeys the SSC as Bordelais (1986) has argued for examples (16) and (18), contra Chomsky (1980, 1991) and Lasnik and Freiden (1981). This is problematic in light of the fact that in English and many other languages wh-extraction is good out of complement clauses where the complement clause has an overt subject.

The contrasts in (14)-(18) can be accounted for by adopting a version of Koopman and Sportiche's (1988) idea that IPs have two structural positions for subjects, one a θ' -position and the other a θ -position. Koopman and Sportiche (1988) propose that the structure of IP is as given in (19) where NP^{\wedge} is a

θ' -position and NP* is a θ -position.

(19)



They maintain that in English, French, and Vata the subject NP obligatorily raises from NP* position to NP^ position but in Italian, and Spanish the subject remains in NP* position. I assume that in English the subject can be in NP^ or NP*. Overt subjects are in the θ' -position NP^ and PRO subjects are in the θ -position NP*. (See Fukui and Speas (1986) for a similar suggestion)

The principle that I propose to account for the contrasts in (14)–(18) is a modification of the Condition on Long Extraction (CLE) proposed by Koopman and Sportiche (1989). Koopman and Sportiche's CLE stated in (20) restricts long extraction to elements in θ -positions.

(20) CLE: Long extraction is permitted iff the extraction site is a theta-position.

I extend this requirement to not only the extraction site but to intermediate elements in the chain of wh-movement also. This extension is stated in (21). Intermediate traces are required to be indirectly θ -marked. An element is indirectly θ -marked if it is coindexed with a subject in a θ -position.

(21) RCLE: All elements in the chain of wh-movement are θ -marked: either directly or indirectly

- Direct θ -marking is the usual θ -marking and indirect θ -marking is defined as coindexation with an element in a θ -marked specifier position. For example SPEC(CP) in (14a) is indirectly θ -marked due to coindexation with PRO in the θ -position NP*. But SPEC(CP) in (14b) is not indirectly θ -marked by Bill since Bill is in the non- θ -position NP^ . The indexing involved here is essentially that of Finer (1984) where INFL and SPEC(IP) are coindexed by agreement and INFL and SPEC(CP) are coindexed as parts of a discontinuous constituent. Thus the subject NP in SPEC(IP) is

COREFERENTIAL SUBJECTS AND SUBJACENCY

coindexed with SPEC(CP) as in (22b). I extend this indexing system to DPs as shown in (22a).

- (22)a) $NP_i \dots [_{DP} SPEC(DP)_i [_{D'} D_i [_{NP} PRO_i [N]]]]$
 b) $NP_i \dots [_{CP} SPEC(CP)_i [_{C'} C_i [_{IP} NP_i [INFL_i V]]]]$

We assume that subjects are coindexed with the SPEC(CP) position and say that the SPEC(CP) position is thereby θ/θ' -marked indirectly if the subject is θ/θ' -marked. We can then account for the contrasts in (14)-(18) via the RCLE. The overt subjects in the b) examples in (14)-(18) are in the θ' -position NP^{\wedge} and the PRO subjects in the a) examples are in the θ -position NP^* . Thus SPEC(CP) in the a) examples is indirectly θ -marked so t' in SPEC(CP) is also and the wh-chain including t' satisfies the RCLE. In the b) examples however the subject is in the θ' -position NP^{\wedge} and the intermediate trace t' is not indirectly θ -marked by indexing and the chain including t' violates the RCLE.

The problem with this account is that (15a) satisfies the RCLE but still the step in the chain of wh-movement from t' in SPEC(CP) to adjunction to VP violates subjacency since it crosses two barriers PP and CP. To satisfy subjacency we then have to modify the notion of barrier in order to eliminate CP as a barrier in (15a).

The WHI example of (17) would require an intermediate trace in SPEC(CP) of the embedded clause to get the contrasts between the a) and b) cases via the RCLE. But in (17) the SPEC(CP) position is already filled with a wh-phrase. Extraction without moving through SPEC(CP) would involve crossing two barriers however. So these cases also require a modification of the notion of barrier.

We can do this by exploiting the notion of indirect θ -marking of the SPEC(CP) position. In the (a) examples of (14)-(18) PRO is in the θ -position NP^* and is coindexed with SPEC(CP) by the indexing system proposed in (22). SPEC(CP) is thereby indirectly θ -marked and therefore indirectly L-marked and if we extend the notion of SPEC-head agreement to the indexing involved here in indirect L-marking, CP is indirectly L-marked and not a blocking category and therefore not a barrier to extraction. There is thus only one barrier crossed during wh-extraction in the a) cases of the WHI example in (17) and the Adjunct Condition exception example in (15). They are thus

correctly predicted to be good by subjacency. ³

If we introduce this modification of L-marking and thereby of the notion barrier to account for the a)/b) contrasts above one might question the need for the RCLE. But in the PG examples of (14) and (16) there is no movement past the embedded CP and PF nodes so the barrierhood of these nodes is irrelevant for subjacency. These contrasts are however predicted by the RCLE if we extend it to the composed chain including the wh-phrase, its trace, the empty operator \bar{O} and the PG. The \bar{O} in SPEC(CP) is indirectly θ -marked in the good a) examples which are thus good by the RCLE. So we still need the RCLE to get the full range of predictions.

As has been noted Cinque (1980) and Aoun (1985) the SSC seems to apply to extraction out of NPs but not to extraction out of sentential complements. As Bordelais (1986) has noted the SSC seems to also apply to extraction out of WHIs. My account of these exceptions to extraction islands provides a unified account of these phenomena and also an explanation for why the SSC sensitivity of NPs and WHIs does not carry over to sentential complements.

In sentential complements SPEC(CP) is L-marked by being coindexed with the head of CP which is L-marked by the matrix verb. This requires an extension of the notion of Spec-head agreement of Chomsky (1986) to the relation between C and CP.⁴ Thus an intermediate trace in SPEC(CP) of the sentential complement CP is directly L-marked and satisfies the RCLE even though it has an overt subject in a θ -position, NP \bar{c} , which in WHI contexts or adverbial adjuncts would render the

3. This account may be problematic for Italian and Spanish if they have subjects always in NP* position as claimed by Koopman and Sportiche (1988). This is because they shouldn't show the SSC effects in wh-islands counter to fact as we see in (16) and (18). I leave this for further work.

4. With this extension of the notion of agreement we get L-marking of SPEC(CP) by Chomsky's (1986) principle (47) p.24 in i).

i) Where α is a lexical category, α L-marks β iff β agrees with the head of χ that is θ -governed by α .

SPEC(CP) position not θ -marked and thereby prevent the intermediate trace in it from satisfying the RCLE and rule it out.

IV. Result and Process Nominals in Spanish

We can also account for the contrast in (23) between result nominals and process nominals in Spanish with this theory.

(23)a) *De quien_i olvidaste la description t_i de Ricardo

'Of who you forgot the description t by Ricardo'

b) De que pieza_i te interesa la PRO_j ejecucion t_i
de este director_j

'Of what piece you interest the execution t
by this director'

In the b) example above the SPEC(DP) position gets indexed with PRO which gets a referential θ -role and therefore satisfies the RCLE. The a) example however doesn't have PRO to give SPEC(DP) this indexing.

The process nominal in (23b) has a PRO by application of Lebeaux's principle, as previously discussed. Since process nominals such as destruction in (4a) have true θ -marked arguments since they behave more like verbs which have θ -marked arguments the "object" argument in destruction nominals is θ -marked and allows the pronominal subject argument PRO in (23b). In (23a) the argument is not a true θ -marked element so there is no pronominal genitive argument PRO.

The contrast in (23) can be explained by noting that Ricardo in (23a) does not have a true θ -role relation to description in (23a) as este director does to ejecucion in (23b) but has the relation R with respect to the head as noted by Williams (1985) and Lebeaux (1986).

The difference between these two nominalizations is the same as the difference between destruction and criticism in Lebeaux (1986) which he takes to indicate that the relation between the pronominal genitive and the head N in destruction-type nominalization is different than in criticism-type nominalizations. In destruction-type nominalizations the pronominal genitive is a θ -marked argument. Thus the subject postposing operation is good for pronominal genitives

that have the relation R to the N's as in (24b) but not for prenominal genitives that have a true agentive θ -role as in (24a) as pointed out by Lebeaux (1986).

- (24)a) * The destruction of the city of John's
 b) The criticism of Mary of Bill's

The two kinds of nominalization also differ in the ability of the genitive to appear in a post-copular position as in (25).

- (25)a) * The destruction of the city was John's
 b) The criticism of Mary was John's

We see the same contrast between the nominalization descripcion and ejecucion in (26).

- (26)a) ? La ejecucion de la peiza era la suya
 'the execution of the piece was his'
 b) La descripcion de la casa era la suya
 'the description of the house was his'

So in (23a) the genitive Ricardo has the relation R to N' and not the thematic agent θ -role that este director has in (23b). Descripcion in Spanish is like criticism in English in that its possessor is not a true θ -marked agent argument but bears a relation R to the nominal. Thus the SPEC(DP) position which contains the intermediate trace of wh-movement is indirectly θ -marked and satisfies the RCLE in (23b) but not in (23a); hence the difference in grammaticality.

V. Inherent and Non-inherent Possessors⁵

Contrasts in the blocking effects of other genitive subjects in NPs can also be accounted for under this theory. As Pollock (1989) has noted, possessive subjects of NPs block wh-movement when the subject is a non-inherent possessor but not when it is an inherent

 5. Tellier (1989), this volume, discusses similar contrasts in extractability out of French NPs which also may fall under this account.

possessor. We can see this contrast in (27).

(27)a) Which symphony do you hate Karajan's
interpretation of e ?

b)* How many civilians did you witness the
soldier's execution of e ?

This difference can be seen as a difference in θ -markedness of the two kinds of subject. If the non-inherent possessor subjects as in (27b) are in θ^* -positions and the inherent possessor subjects as in (27a) are in θ -positions we can attribute the difference in extractability to the RCLE just as the examples above were.

VI. The Question of Adjunct Attachment

The contrast in terms of complement vs. adjunct status of what have been traditionally taken to be complements may also account for the differences in acceptability of PGs in different kinds of adjuncts. As Engdahl (1983) has noted there is an acceptability hierarchy for parasitic gaps ranging from more to less acceptable in manner adverbials > time adverbials > rationale adverbials. One way we can account for this hierarchy by positing that the rationale adverbials such as because-clauses which don't allow PGs as well are attached higher than before-clauses and without-clauses and are in fact true adjuncts and are attached to IP whereas without-clauses and before-clause are more like complements and are attached to VP as has been argued by Williams (1974). In this way the contrasts can be tied to a difference in the status of the SPEC(PP) position of the adverbial. In the adverbials that are lower in the acceptability hierarchy for PGs, such as because-clauses, the trace of wh-movement in SPEC(PP) cannot be head governed since they are attached to IP and therefore violate the ECP. Adverbials such as before- and without-clauses are however attached to V' and are therefore head governed by V and the intermediate traces in SPEC(PP) do not violate the ECP.

VII. Conclusion

In this paper I have accounted for a range of exceptions to island conditions in a unified manner in terms of the RCLE. These islands which are transparent in spite of involving movement past two bounding nodes all have a PRO in an IP or NP which is in a

θ -position. The indexing mechanism proposed then coindexes the subject PRO with a SPEC position through which movement must pass and which is indirectly θ -marked and therefore allows the intermediate trace to satisfy the RCLE. The RCLE is conceptually natural in light of the fact that, as Cinque (1989) has shown, long extraction is allowed from positions which are referentially θ -marked. The RCLE is just an extension of this principle to intermediate traces in the entire chain of wh-movement.

Bibliography

- Abney, S. (1987) The English NP in its Sentential Aspect diss. MIT
- Aoun, J. (1985) The Grammar of Anaphora MIT Press
- Aoun, J. et al. (1987) "Two Types of Locality" Linguistic Inquiry 18,537-578.
- Bach, E. and Horn, L. (1976) "Remarks on "Conditions on Transformations"" Linguistic Inquiry 7.2, 265-299
- Bordelois, I. (1986) "Parasitic Gaps: Extensions of Restructuring" in Bordelois, Y., Contreras, H., and Zagana, K. eds. Generative Studies in Spanish pp.1-24, Foris, Dordrecht
- Chomsky, N. (1980) "On Binding" Linguistic Inquiry 11;1-46
- Chomsky, N. (1981) Lectures on Government and Binding Foris, Dordrecht
- Chomsky, N. (1986) Barriers MIT Press, Cambridge, Ma.
- Cinque, G. (1980) "On Extraction from NP" in Italian J. of Ital. Linguistics 1/2, 47-99
- Cinque, G. (1989) "On Long Extraction" Paper presented at the Princeton University workshop II.
- Finer, D. (1984) The Formal Grammar of Switch-Reference Garland, New York
- Fukui, N. and Speas, M. (1986) Specifiers and Projection MIT Working Papers pp.249-273
- Grosu (1977) "Is make the claim a Complex Lexical Item" Linguistic Inquiry 8,726-729
- Horn (1974) The NP Constraint Doctoral dissertation, University of Massachusetts, Amherst
- Kitagawa, Y. (1986) Subjects in Japanese and English Doctoral Dissertation University of Massachusetts

COREFERENTIAL SUBJECTS AND SUBJACENCY

- Koopman, H. and Sportiche, D. (1988) Subjects m.s. UCLA
- Kuroda, K.Y. (1986) "Whether We Agree or Not" m.s. U.C. San Diego
- Lasnik, H. and Freiden, (1981) "Disjoint Reference and Wh-trace" Linguistic Inquiry 12,39-53
- Lebeaux, D. (1986) "The Interpretation of Derived Nominals" CLS 22, 231-247
- Longobardi, G. and Giorgi, A. (1987) The Syntax of Noun Phrases: Configuration, Parameters, and Empty Categories m.s.
- Pollock, J.-Y. (1989) "Opacity, Genitive Subjects and Extraction from NP in English and French" m.s. Universite de Haute Bretagne, Rennes II.
- Mallen (1989) Internal Structure of DP Phrases Doctoral dissertation, Cornell
- Roeper (1987) "Implicit Arguments and the Head Complement Relation" Linguistic Inquiry 18.2,267-310
- Ross, J. (1967) Constraints on Variables in Syntax Doctoral dissertation MIT
- Safir (1986) "On Implicit Arguments and Thematic Structure" NELS 16; 403-418 GLSA Umass
- Stowell, T. (1981) The Origins of Phrase Structure Doctoral dissertation MIT
- Tellier, C. (1989) "Underived Nominals and the Projection Principle: Inherent Possessors" NELS20
- Torrego, E. (1984) "On Inversion in Spanish and Some of its Effects" Linguistic Inquiry 15.1,103-129
- Williams, E. (1974) "Small Clauses in English" in Syntax and Semantics 4 J. Kimball ed. pp.249-273
- Williams, E. (1985) "PRO as the Subject of NP" Natural Language and Linguistic Theory 3(3), 297-316