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Defending a-movement

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Defending A-Movement[*]

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1. Introduction

The subject in a raising sentence like (1) has two interrelated characteristics:

(1) This story seems to have been believed by the villagers.

First, it is in a thematic relation with the embedded predicate *believed,* and secondly, it appears in a position syntactically separated from the relevant predicate. The syntactic separation of the subject from its thematically associated predicate is usually accounted for by means of A-movement in the Principles-and-Parameters Theory (henceforth, PPT). Thus, the subject *this story*, which is base-generated and θ-marked in the complement position to the embedded predicate, is considered to be moved into the surface position.

The movement-based analysis, however, is not the only approach to the displacement of the subject in (1). Analyses that do not rely on movement have in fact been put forward from time to time in PPT on

various theoretical and empirical grounds (Williams 1994, Manzini and Roussou 2000, among others). Elimination of A-movement is in a sense a radical view in a theory like PPT, because in contrast to grammars like Lexical-Functional Grammar (LFG) and Head-Driven Phrase Structure Grammar (HPSG),[1] PPT employs movement as the principal theoretical apparatus to implement dislocation phenomena of various kinds. Put differently, abolition of A-movement may require a fundamental change in the core part of the theory.

The primary purpose of this paper is to give support for the 'traditional' approach to displacement phenomena, namely, the analysis relying on movement. To this end, it pays attention to the behaviour of idiom chunks in the raising construction and demonstrates that the hitherto postulated A-movement is necessary as a purely syntactic operation independent of θ-marking. First of all, the following section reviews the non-movement analysis that appeared in the literature of PPT. It focuses particularly on Williams's (1994) and Manzini and Roussou's (2000) proposals that displacement effects are reducible to the process of long-distance θ-marking without recourse to actual movement of a category. Section 3, on the other hand, suggests the existence of a construction that potentially indicates the necessity of an independent movement operation. More specifically, it pays attention to displacement of idiom chunks. Sections 4 and 5 aim to reinforce this view. Examination of two phenomena, adjectival passivisation and weak island effects, leads to the conclusion that idiom chunks are not thematic elements.

2. Displacement without Movement

This section reviews non-movement analyses advocated by Williams

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[1] Constraint-based grammars such as LFG (Bresnan 2001) and HPSG (Pollard and Sag 1994) also analyse the displacement effects by means of theoretical devices other than movement. A similar idea is developed within the framework of Categorial Grammar too (see Jacobson 1992 and Cormack and Smith 1997, 2001, for example).

(1994) and Manzini and Roussou (2000; henceforth, M&R). Although their analyses differ from each other in several respects, they share one important thesis: A-movement does not exist. According to them, the subject *this story* in (1) is generated directly in the surface position (i.e. matrix Spec-TP) as in (2a), in contrast to the movement analysis illustrated in (2b), where the subject is base-generated in the complement position to the embedded verb and subsequently moved to the surface position:

(2) a. [TP *This story* seems [TP to have been believed by the villagers]].

   b. [TP *This story*$_1$ seems [TP t_1 to have been believed t_1 by the villagers]].

The non-movement analysis differs from the movement analysis in the treatment of θ-marking to the subject. Although the subject is syntactically separated from the predicate *believed,* their (thematic) relation is still identifiable. The identification is made possible in the movement analysis by combining θ-marking inside the embedded clause and subsequent movement. On the other hand, advocators of the non-movement analysis maintain that the relevant linking is totally reducible to θ-marking. In other words, the displacement effect allegedly implemented by θ-marking and movement is in fact a single process, long-distance θ-marking. M&R, for instance, make the following assumptions: (i) the hitherto postulated θ-roles are features carried by a predicate; (ii) θ-marking is replaced by feature-attraction.[2]

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2 Similarly, Williams (1994) attempts to reduce the displacement effect to the process of θ-marking. He considers that θ-marking takes place under a sister relation. But obviously the subject and the embedded predicate in (1) are not in a sister relation. In order to implement long-distance θ-marking, Williams makes two assumptions. First, a predicate's θ-role is 'passed up to' or 'inherited by' its maximal projection. Secondly, what are called raising categories such as a raising predicate and a functional head like T (cf. Koopman and Sportiche 1991) are able to inherit the predicate's θ-role. Thus, the relevant θ-role of the embedded verb *believed* is inherited not only by the embedded VP but also by the matrix T', which is the sister of the subject *this story*, and eventually assigned to the subject.

This is illustrated below:

(3) *This story* seems to have been *believed* by the villagers.

        θ-feature attraction

The subject *this story* attracts a θ-feature carried by the embedded predicate *believed* and the link formed by this process corresponds to the link created by syntactic movement (plus local θ-marking) in the standard analysis.

Having described the gist of the non-movement analysis, let us now contemplate its theoretical implications. According to M&R, elimination of A-movement conforms with conceptual guidelines of the minimalist program. One of the novelties of the minimalist program is its abolition of D- and S-structures (Chomsky 1995). D-structure is a level of representation where lexical insertion takes place, which precedes all other syntactic operations. Since it encodes the lexical properties of the constituents of a sentence and represents the basic argument/thematic relations, a natural corollary is that θ-marking takes place at this level only. M&R argue that the abolition of D-structure leads to the elimination of the principles relevant to this level, namely, the Projection Principle and the θ-criterion. In the absence of these principles, lexical insertion and θ-marking may in principle take place throughout the derivation. A potential consequence, then, is that (apparently) dislocated categories can be base-generated and θ-marked in their surface positions.

M&R's proposal at first sight seems to be well-motivated within the minimalist framework. However, it should not be overlooked that elimination of A-movement is not the one and only logical outcome arising from the abolition of D-structure. In other words, trans-derivational lexical insertion and θ-marking do not automatically entail the absence of A-movement. For example, Hornstein (1999) puts forward the view that the abolition of D-structure along with the Projection Principle and the θ-criterion makes it possible to

postulate movement into θ-positions. Notice that his analysis, even though it retains A-movement, conforms with the trans-derivational lexical insertion and θ-marking. This means that the abolition of the D-structure principles does not immediately force elimination of syntactic A-movement from the grammar. It follows then that M&R's argument against A-movement does not have strong theoretical grounds. The following sections will demonstrate that it does not seem to have much empirical adequacy, either.

3. Idiom Chunks and Expletives

3.1 Idiom Chunks

Substituting a (covert) long-distance θ-marking process for actual movement of an argument is equivalent to equating putative A-movement with a process of θ-marking. From this observation arises an important prediction. That is, every instance of raising is thematic in nature, involving θ-role assignment in one way or another. Another prediction, which is in a mirror image of the first one, is that if there is a construction exhibiting a displacement effect without θ-marking to the displaced element, then the total reduction of A-movement to the process of (long-distance) θ-marking is not tenable. Therefore, it is worthwhile to examine whether such a construction exists.

To this end, this section pays attention to what is called *idiom chunks*. Consider the following examples:

(4) a. The police *kept tabs on* the suspect.
    b. John *took advantage of* the orphans.
    c. John didn't *pay heed to* Mary's advice.

The underlined nouns are conventionally called idiom chunks in that they constitute part of idiomatic expressions. For instance, the

phrase *kept tabs on* in (4a) is rephrased as watching someone carefully to check what they are doing. In this reading, the noun *tabs* does not have a literal meaning. It does not stand for a small piece of paper that is fixed to the edge of something to give information about it. Rather it has a figurative meaning and figuration is considered to be a major aspect of idiomaticity (Nunberg, Sag and Wasow 1994). The main purpose of this section is to suggest the possibility that idiom chunks are distinct from canonical nominals and behave similarly to expletive elements.

3.2 Preliminary Observations

As a first step, let us briefly survey differences between arguments and expletives. Postal and Pullum (1988) present diagnostics that distinguish expletives from arguments. Consider the following examples:

(5) Emphatic reflexives
    a. For him to smoke is *itself* illegal.
    b. *It is *itself* illegal for him to smoke.

(6) Coordination
    a. He and she were respectively proved to be a communist and claimed to be an anarchist.
    b. *It and there were/was respectively proved to be raining and claimed to be floods in the valley.

(7) Complement to nominalisation *of*
    a. I lost it whenever she looks at me that way.
    b. *my loss of it whenever she looks at me that way

(8) *Tough*-construction
    a. The animal$_1$ was now quite large, and it$_1$ was tough to prevent from escaping.
    b. *It was tough to prevent from becoming obvious that things were out of control.

((5, 6, 8) from Postal and Pullum 1988:636-7; (7) from Abney 1987:146)

An argument and an expletive exhibit systematic contrast with respect to the phenomena listed in (5)-(8). While an argument is compatible with these environments, an expletive is not.

The above mentioned contrast can be used as diagnostics of the status of idiom chunks. A possible prediction is that if they are arguments, they can occur in these environments, whereas if they are like expletives, they are ruled out. As illustrated below, they are not acceptable in any of these constructions:

(9) a. *Tabs have *themselves* been kept on the suspects.
   b. *Neither care nor heed was respectively taken of the orphans and paid to their health.
   c. *Jerry's (careful) keeping of tabs on Sherry...(Baker 1985:5)
   d. *Good care is hard to take of the orphans. (Chomsky 1981:309)

The distributional parallelism between expletives and idiom chunks leads us to a provisional conclusion that idiom chunks are grouped with expletives and distinguished from canonical arguments.[3]

Recall, at this point, that a crucial factor distinguishing expletives from arguments is their non-thematic character. As is well-known, expletives are excluded from positions where arguments occur:

(10) a. {The news/*There} surprised the villagers.
   b. The villagers wouldn't believe {the news/*there}.

Since an expletive is not a thematic element as opposed to an argument, its occurrence in (10a, b) prevents the predicate from

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3 This conclusion will be reinforced in sections 4 and 5.

discharging (one of) its θ-role(s) and consequently, the relevant sentence violates the θ-criterion. This observation, if combined with the above discussed parallelism between idiom chunks and expletives, leads to another potential conclusion: idiom chunks are not thematic elements, either.

3.3 Thematic Characterisation of Idiom Chunks

The observations made so far seem to pose a problem to Williams's (1994) and M&R's characterisation of A-movement. As illustrated below, idiom chunks are able to undergo raising and hence exhibit displacement effects:

(11) a. $Tabs_i$ seem to have been kept t_i on the suspects.

b. $Advantage_i$ seems to have been taken t_i of the orphans.

c. No $heed_i$ is believed to have been paid t_i to Mary's advice.

Recall that the non-movement analysis of displacement effects postulates direct insertion of the subject in its surface position. Recall also that the linking between the subject and an appropriate predicate is made possible by some form of long-distance θ-marking under such an analysis. However, it must be emphasised that characterisation of idiom chunks as non-thematic elements makes long-distance θ-marking (or any kind of θ-marking) unavailable. The unavailability of this option leaves the idiom chunk subjects in (11a-c) unlinked with the embedded predicates unless one makes use of syntactic movement.

Nevertheless, things may not be as straightforward as we expect. Williams (1994) argues, trying to defend the absence of A-movement, that idiom chunks in (11a-c) do bear θ-roles and therefore should be treated on a par with canonical arguments.[4] Attributing his observation to Fiengo (1974), he says that when raising or passivisation is

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4 See also Nunberg, Sag and Wasow (1994) for a claim to this effect.

applicable to an idiom chunk, the relevant idiomatic expression has an analysable internal structure.[5] He proposes to associate analysability with the presence of θ-marking and maintains that idiom chunks undergoing raising or passivisation should in fact be grouped with thematic arguments. In other words, examples like (11a-c) are not problematic to his analysis, because they also involve a long-distance thematic relation between the idiom chunk subject and the embedded predicate.

Additionally, care must be taken when one treats the parallelism between (b) examples in (5)-(8) and examples in (9). Although they do seem to show that expletives and idiom chunks behave similarly with respect to certain kinds of construction, it could be the case that these similarities are only accidental. More importantly, it is still not clear whether they have anything to do with thematic properties of these categories. More direct evidence is called for, in order to see whether idiom chunks are truly non-thematic elements. The sections that follow examine phenomena that are related to this issue.

4. Adjectival Passives

This section demonstrates that certain types of idiom chunks are excluded from the adjectival passive construction. It is also shown that adjectival passivisation involves externalisation of an internal argument of the original verb in the lexicon and hence the adjectival passive participle must enter into a thematic relation with its subject. The exclusion of idiom chunks from the subject position of the adjectival passive construction, therefore, is attributed to the absence

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5   On the other hand, idioms such as *kick the bucket* cannot be passivised:

    (i)   a. The poor guy kicked the bucket.
          b. # The bucket was kicked (by the poor guy).

The symbol # indicates that the relevant sentence cannot be interpreted as idiomatic. Williams (1994) considers that resistance of raising or passivisation indicates that the relevant idiom has an unanalysable structure.

of a thematic relation between the passive predicate and the idiom chunk subject.

4.1 Verbal vs. Adjectival Passives

Passivisation has been extensively studied in the history of generative grammar and a large number of works have recognised two classes of passive participles, namely, verbal and adjectival passives (Chomsky 1957, Siegel 1973, Freidin 1975, Wasow 1977, Bresnan 1982, Levin and Rappaport 1986, among many others). Although verbal and adjectival passive participles are morphologically identical, their ambiguity can be obviated on the basis of certain diagnostics.

First, as noted by Siegel (1973), while affixation of a negative prefix *un-* is possible with an adjective, it is not possible with a verb:

    (12) a. John's story is unbelievable.

        b. *The press unreported the President's blunder.

Notice that *un-* is attached to the adjective *believable* in (12a), whereas it is attached to the past tense form of the verb *report* in (12b). Given this contrast, the well-formed passive participle *unreported* in (13) indicates that it is adjectival rather than verbal:

    (13) The President's blunder was unreported.

Secondly, Wasow (1977) argues that a class of verbs like *seem, look, become, remain, sound,* etc. select adjectival complements:

(14)
$$\text{John} \left\{ \begin{array}{l} \text{seemed} \\ \text{became} \\ \text{looked} \end{array} \right\} \left\{ \begin{array}{l} \text{happy.} \\ \text{angy at the world.} \\ \text{eager to win.} \end{array} \right\}$$

Viewed in this light, the passive participle selected by these verbs can

also be considered to be adjectival:

(15)
$$\text{John} \begin{Bmatrix} \text{seemed} \\ \text{became} \\ \text{looked} \end{Bmatrix} \begin{Bmatrix} \text{elated.} \\ \text{annoyed at us.} \\ \text{convinced to run.} \end{Bmatrix}$$

With these criteria in mind, let us now deal more carefully with properties of adjectival passives.

4.2 The Thematic Restriction on the Subject

Various authors note that the adjectival passive construction imposes a stricter restriction on the subject (Wasow 1977, Bresnan 1982, Levin and Rappaport 1986, Baltin 1995, among many others). Consider the following examples:

(16) a. There is *believed* to have been corruption in high places.
　　 b. *There seems *believed* to have been corruption in high places.
　　 c. *There is *unknown* to have been corruption in high places.

While the italicised predicate in (16a) is a verbal passive participle, those in (16b, c) are adjectival ones. They occur in the morphological and syntactic environments typically associated with adjectives (see the discussion above). An important point to note is the fact that the categorial distinction in question is reflected in the grammaticality of the sentences.

Levin and Rappaport (1986) argue that the ungrammaticality of (16b, c) is attributable to the restriction that the subject of the adjectival passive construction must be a thematic element. According to them, adjectival passive formation takes place in the lexicon and involves externalisation of the internal argument of the original verb. To see this point clearly, let us consider the following case:

(17) a. The machine seemed broken.

　　 b. *break*<u>Agent</u>, Theme>

　　　　—deverbalisation & externalisation→

　　 c. *broken*_{ADJ}<<u>Theme</u>>[6]

As illustrated by (17b, c), the adjectival passive participle *broken* is derived from the verb *break*. The original verb is equipped with an argument structure like (17b). The process of deverbalisation is accompanied by externalisation of the internal argument and the resulting adjectival passive participle has Theme as its external argument. A corollary of this account is that the subject of the adjectival passive construction must bear a θ-role. Since the expletive subject in (16b, c) is not a thematic element, it is incompatible with the adjectival passive predicate.[7]

A possible prediction, then, is that if idiom chunks are also non-thematic elements, they cannot occur in the adjectival passive construction. This prediction seems to be borne out:

(18) a. *Advantage remains untaken of the new computers.

　　 b. *Tabs remain kept on Jane Fonda.　(Abney 1987:262)

Summing up the discussion so far, it has been shown that the subject of the adjectival passive construction must have a thematic relation with the passive participle. This restriction accounts for the incom-

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6　Following a traditional convention, the external argument is underlined.

7　By contrast, verbal passive formation does not involve externalisation in the lexicon. Instead the external argument of the original verb undergoes suppression (Jaeggli 1986, Baker, Johnson and Roberts 1989, Grimshaw 1990, among others):

　　(i) a. *break*<<u>Agent</u>, Theme>——suppression of the external argument→
　　　　 b. *broken*_V<Theme>

This means that the infinitival complement serves as a Theme argument of the predicate *believed* in (16a) and that the passive participle does not have to enter a thematic relation with the subject. This allows the occurrence of an expletive subject in (16a).

patibility of an expletive subject with adjectival passives because of its non-thematic character. The ungrammaticality of (18a, b) is also attributable to the same restriction, that is, idiom chunks are also non-thematic elements and therefore cannot occur in the adjectival passive construction.

5. Weak Islands

This section discusses yet another phenomenon that constitutes evidence for the non-thematic status of idiom chunks. Rizzi (1990:78-9) points out that idiom chunks behave differently from arguments with respect to wh-extraction out of a wh-island:[8]

(19) a. What project$_i$ do you think you can make headway on t_i?
    b. What headway$_i$ do you think you can make t_i on this project?
(20) a. ?What project$_i$ do you wonder how to make headway on t_i?
    b. *What headway$_i$ do you wonder how to make t_i on this project?

Both idiom chunks and arguments can be wh-moved as illustrated by (19a, b). However, it is only arguments that can be extracted out of a wh-island. Thus, (20a) is acceptable (though slightly marginal), whereas (20b) is strictly ruled out.

Notice that a wh-island belongs to *weak islands* in Cinque's (1990) categorisation of island effects. As is well known, the most prominent difference between strong and weak islands lies in the extractability of arguments. A strong island uniformly resists wh-extraction of phrases, whether they are arguments or adjuncts. However, a weak island puts a less strict restriction on wh-extraction. Although extraction of an adjunct is prohibited, extraction of an

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8   I wish to thank Ian Roberts (p.c.) for drawing my attention to this phenomenon.

argument is possible. This is illustrated below:

(21) *Strong island*[9]
    a. *To whom$_i$ did you leave [without speaking t_i]?
                                            (argument extraction)
    b. *How$_i$ was he fired [after behaving t_i]?
                                            (adjunct extraction)

(22) *Weak island*
    a. ?Which problem$_i$ do you wonder [how to solve t_i]?
                                          (argument extraction)
    b. *How$_i$ do you wonder [which problem to solve t_i]?
                                            (adjunct extraction)

The argument-adjunct asymmetry in *wh*-island effects has attracted much attention and various proposals have been made to account for the contrast. Although a detailed discussion of each proposal has little relevance to the main point in this paper, it might be of some use to summarise the insight they share. The asymmetry in question used to be accounted for in the Government-and-Binding framework in terms of the Empty Category Principle (ECP)—particularly by means of the notion of θ-government. Simplifying the discussion grossly, the core idea of the ECP-based analysis is that extraction of a category without a θ-role is not tolerated due to the θ-government requirement. Although neither government nor the ECP is used any longer in the

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9 In addition to adjuncts as illustrated by (21a, b), subjects and complex noun phrases also form strong islands. *Wh*-extraction out of those constituents are not allowed, whether the *wh*-phrase is an argument or an adjunct:

  (i) *Subject island*
    a. *Which book$_i$ did [talking about t_i] become difficult? (argument extraction)
    b. *How$_i$ would [to behave t_i] be inappropriate? (adjunct extraction)
  (ii) *Complex noun phrase island*
    a. *To whom$_i$ have you found [someone who would speak t_i]? (argument extraction)
    b. *How$_i$ have you found [someone who would fix it t_i]? (adjunct extraction)

minimalist framework, the principal idea of the ECP-based analysis is carried over to the early minimalist account of the relevant phenomenon (see Chomsky 1995). That is, whether or not an extracted category is θ-marked plays a crucial role.

No matter which theoretical apparatus may be used, the association of the argument-adjunct asymmetry with the presence or absence of θ-marking seems to be a conceivable observation, given that the θ-marking property is one of the most fundamental factors distinguishing between arguments and adjuncts. Viewed from this perspective, weak island effects in (22a, b) can be used as a criterion to see whether a given category is θ-marked or not. A prediction is that if *wh*-movement out of a weak island is possible, the moved category is θ-marked. By contrast, a category that is not θ-marked cannot be extracted from a weak island. Notice that (20a, b) and (22a, b) are parallel to each other with respect to the grammaticality of the sentences involved. Given that weak island effects are sensitive to the presence or absence of θ-marking, a possible conclusion drawn from the ungrammaticality of (20b) is that the *wh*-moved idiom chunk *what headway* is not θ-marked.

Another possible prediction, then, is that *wh*-movement of idiom chunks are uniformly prohibited in other types of weak island such as the negative island, the factive island and the extraposition island. This prediction, in fact, is borne out:

(23) *Extraction of arguments*
    a. What project$_i$ didn't you make headway on t_i?

                              (negative island)

    b. What project$_i$ do you regret that you failed to make headway on t_i?   (factive island)

    c. What project$_i$ is it necessary to make headway on t_i?

                          (extraposition island)

(24) *Extraction of idiom chunks*
    a. *What headway$_i$ didn't you make t_i on this project?

b. *What headway$_1$ do you regret that you failed to make
   t_1 on this project?   (factive island)

c. *What headway$_1$ is it necessary to make t_1 on this project?
                           (extraposition island)

It follows from what has been said that idiom chunks are not
θ-marked. This observation lends further support to the conclusion
reached in the previous section, that is, idiom chunks are not thematic
elements.

6. Conclusion

The preceding sections have presented empirical arguments for the
characterisation of an idiom chunk as a non-thematic category.
Bearing this conclusion in mind, let us consider the following sentence:

(25) Tabs seem to have been kept on the suspects.

Here, an idiom chunk is separated from the remaining part of an
idiom. According to the non-movement analysis, the dislocated
category is base-generated in its surface position and the hitherto
postulated A-movement is totally reduced to a kind of long-distance
θ-marking. However, since the dislocated idiom chunk subject does not
have to bear a θ-role, long-distance θ-marking is irrelevant to (25).
This indicates that displacement effects are not totally reducible to
θ-marking and that purely syntactic A-movement is still necessary to
associate dislocated elements with appropriate predicates.

References

Abney, S. P. 1987. The English noun phrase in its sentential aspect.
Ph.D. dissertation. MIT.

Baker, M. 1985. Syntactic affixation and English gerunds. *Proceedings of the West Coast Conference on Formal Linguistics* 4. 1-11.

Baker, M., K. Johnson and I. Roberts. 1989. Passive arguments raised. *Linguistic Inquiry* **20**. 219-251.

Baltin, M. 1995. Floating quantifiers, PRO, and predication. *Linguistic Inquiry* **26**. 199-248.

Bresnan, J. 1982. The passive in lexical theory. In J. Bresnan (ed.) *The Mental Representation of Grammatical Relations*. Cambridge, Mass.: MIT Press. 3-86.

Bresnan, J. 2001. *Lexical-Functional Syntax*. Oxford: Blackwell.

Chomsky, N. 1957. *Syntactic Structures*. The Hague: Mouton.

Chomsky, N. 1981. *Lectures on Government and Binding*. Berlin: Mouton de Gruyter.

Chomsky, N. 1995. A minimalist program for linguistic theory. In N. Chomsky. *The Minimalist Program*. Cambridge, Mass.: MIT Press. 167-217. [Also published in K. Hale and S. J. Keyser (eds.) 1993. *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*. Cambridge, Mass.: MIT Press].

Cinque, G. 1990. *Types of A'-Dependency*. Cambridge, Mass.: MIT Press.

Cormack, A. and N. Smith. 1997. Checking features and split signs. *UCL Working Papers in Linguistics* **9**. 223-252.

Cormack, A. and N. Smith. 2001. Three kinds of apparent movement. Paper presented at the Motivating Movement Conference. University of Ulster at Jordanstown. January 2001.

Fiengo, R. 1974. Semantic conditions on surface structure. Ph.D. dissertation. MIT.

Freidin, R. 1975. The analysis of passives. *Language* **51**. 384-405.

Grimshaw, J. 1990. *Argument Structure*. Cambridge, Mass.: MIT Press.

Hornstein, N. 1999. Movement and control. *Linguistic Inquiry* **30**. 69-96.

Jacobson, P. 1992. Raising without movement. In R. K. Larson, S. Iatridou, U. Lahiri and J. Higginbotham (eds.) *Control and Grammar*. Dordrecht: Kluwer. 149-194.

Jaeggli, O. 1986. Passive. *Linguistic Inquiry* **17**. 587-622.

Koopman, H. and D. Sportiche. 1991. The position of subjects. *Lingua* **85**. 211-258.

Levin, B. and M. Rappaport. 1986. The formation of adjectival passives. *Linguistic Inquiry* **17**. 623-661.

Manzini, M. R. and A. Roussou. 2000. A minimalist theory of A-movement and control. *Lingua* **110**. 409-447.

Nasu, N. 2002. Aspects of the syntax of A-movement: A study of English infinitival constructions and related phenomena. Ph.D. dissertation. University of Essex.

Nunberg, G., I. A. Sag, and T. Wasow. 1994. Idioms. *Language* **70**. 491-538.

Pollard, C. and I. A. Sag. 1994. *Head-Driven Phrase Structure Grammar*. Chicago: The University of Chicago Press.

Postal, P. M. and G.K. Pullum. 1988. Expletive noun phrases in subcategorized positions. *Linguistic Inquiry* **19**. 635-670.

Rizzi, L. 1990. *Relativized Minimality*. Cambridge, Mass.: MIT Press.

Siegel, D. 1973. Non-sources for un-passives. In J. P. Kimball (ed.) *Syntax and Semantics* **2**. New York: Academic Press. 301-317.

Wasow, T. 1977. Transformations and the lexicon. In P. W. Culicover, T. Wasow and A. Akmajian (eds.) *Formal Syntax*. New York: Academic Press. 327-360.

Williams, E. 1994. *Thematic Structure in Syntax*. Cambridge, Mass.: MIT Press.