

Proceedings of the Eighth  
West Coast Conference  
on Formal Linguistics  
1989

Edited by  
E. Jane Fee and Katherine Hunt

Cowper, E. "Perfective *-en* IS Passive *-en*," in  
*Proceedings of WCCFL 8*: 85-93.

Published for  
THE STANFORD LINGUISTICS ASSOCIATION  
by  
The Center for the Study of Language and Information  
Ventura Hall, Stanford University  
Stanford, California

- [10] Kamp, H. (1981) "A Theory of Truth and Semantic Interpretation," in J. Groenendijk et al. (eds.) *Formal Methods in the Study of Language*.
- [11] Kratzer, A. (1981) "The Notional Category of Modality," in H. Eikmeyer & H. Rieser (eds.) *Words, Worlds, and Contexts — New Approaches in Word Semantics*.
- [12] Kratzer, A. (1987) "An Investigation of the Lumps of Thought," manuscript, University of Massachusetts, Amherst.
- [13] Kratzer, A. (1989) "Stage-level and Individual-level Predicates," manuscript, University of Massachusetts, Amherst.
- [14] Krifka, M. & C. Gerstner (1987) "A Typology of Generics," manuscript, Universität Tübingen.
- [15] Landman, F. (1987) "Groups," manuscript, Cornell University.
- [16] Link, G. (1983) "The Logical Analysis of Plurals and Mass Terms: A Lattice-Theoretic Approach," in Bäuerle, Schwarze, and von Stechow (eds.) *Meaning, Use, and the Interpretation of Language*, de Gruyter, Berlin.
- [17] Link, G. (1984) "Plural," in Wunderlich & von Stechow (eds.) *Handbook of Semantics*, de Gruyter, Berlin.
- [18] Link, G. (1987) "Generalized Quantifiers and Plurals," in P. Gärdenfors (ed.) *Generalized Quantifiers*, Reidel, Dordrecht.
- [19] Mackridge, P. (1985) "The Modern Greek Language," Oxford University Press.
- [20] Pelletier, J. & L. Schubert (1986) "Problems in the Representation of the Logical Form of Generics, Bare Plurals, and Mass Terms," in E. LePore (ed.) *New Directions in Semantics*, Academic Press.
- [21] Pesetsky, D. (1988) "Psych Predicates, Universal Allignment, and Lexical Decomposition," to appear in Stowell & Wehrli (eds.).
- [22] Rizzi, L. (1986) "Null Objects in Italian and the Theory of *pro*," *Linguistic Inquiry* 17.3.
- [23] Stump, G. (1985) *The Semantic Variability of Absolute Constructions*, Reidel, Dordrecht.
- [24] Suñer, M. (1983) "*pro<sub>arb</sub>*," *Linguistic Inquiry* 14.1.
- [25] Wilkinson, K. (1988) "Genericity and Indefinite NP's," to appear in *UMOP* 13.
- [26] Zec, D. (1987) "On Obligatory Control in Clausal Complements," in Iida, Wechsler, and Zec (eds.) *Working Papers in Grammatical Theory and Discourse Structure: Interactions of Morphology, Syntax and Discourse*, CSLI Lecture Notes Series No. 11, Stanford University.

## Perfective *-en* IS Passive *-en*<sup>1</sup>

Elizabeth A. Cowper  
University of Toronto

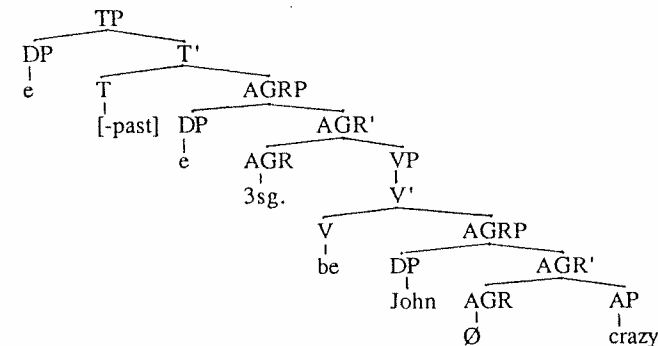
In this paper, I will consider the properties of the suffix normally called *-en* in English. In particular, I will argue that exactly the same suffix is involved in English passive and perfective constructions. Differences between these constructions, in particular those having to do with case assignment to object position, and with theta-marking of the subject, can be made to follow from the different structures in which the participle occurs. This claim is also made by Hoekstra (1986) and by Roberts (1987). The proposal to be made here differs in some respects from theirs; these differences will be brought out where necessary.

### 1. Assumptions

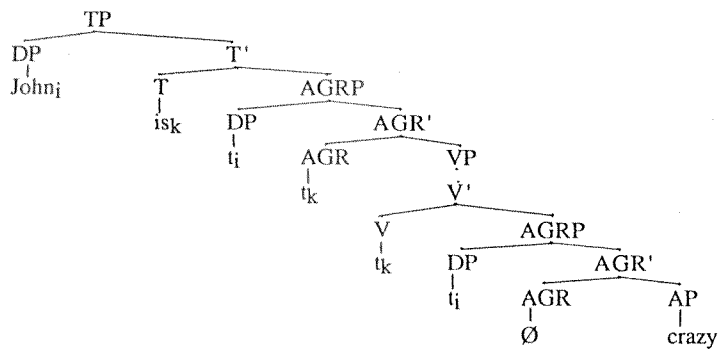
If the *-en* suffix is the same in both passive and perfective constructions, then the differences between passives and perfectives must somehow follow from the fact that in perfectives, the auxiliary verb is *have*, while in passives, the auxiliary is *be*. I take as a starting point the assumption that *be* takes a small clause complement. This is consistent with recent work on auxiliaries by Pollock (1988). A second assumption is that INFL is best treated as consisting of at least two distinct elements, tense and agreement, each of which projects to XP. In this, I follow Pollock and recent work by Chomsky (1989). Third, I shall be making a somewhat unusual assumption about small clauses, namely that they are uniformly projections of the category AGR. This is in line with Kitagawa (1985), who argues that small clauses are projections of INFL. Fourth, I assume, following Pollock, that in English all instances of *be* and some instances of *have*, but not other verbs, undergo head movement from V to AGR and thence to T. All of these assumptions give a sentence like (1) the structures shown in (2).

(1) John is crazy.

(2) a. D-Structure



## b. S-Structure



As for the suffix *-en*, I assume, with di Sciullo and Williams (1987) that *-en* is a lexical affix, which is attached to the verb in the lexicon, rather than in the syntax. Thus, it cannot serve as a syntactic argument, as assumed by Baker, Jaeggli, Roberts, Hoekstra and several others. *-ing*, on the other hand, I will take to be a syntactic affix, belonging to the category AGR, and heading its own projection. My reasons for making this assumption are as follows: First, forms in *-en*, unlike those in *-ing*, exhibit a significant degree of allomorphy, which ought to be unexpected in elements which are syntactically composed. Second, if *-en* were a syntactic affix, I would expect it to be a head, rather than an argument, parallel to [ing], tense, and agreement. (See Rivero 1989 for a proposal along these lines for Albanian and Modern Greek). I will also argue that *-en* alters the predicate-argument structure of the verb it attaches to. Since predicate-argument structure is lexically determined, it seems reasonable to assume that *-en* operates in the lexicon. For the moment, I will characterize the category of the word derived by *-en* suffixation as [+V], heading a projection which I will label [+V]", although I will return to the issue of the categorial status of *-en* participles.

The main question to be dealt with is why passive constructions have a non-case object position and a non-theta subject position, while perfective constructions have both a case-marked object and a theta-marked subject.

2. Passive *-en*

Government-Binding analyses of the passive construction have in common the claim that *-en* has the effect of eliminating the verb's ability to assign structural case, and rendering the external argument implicit, or indirect. The currently most popular analysis (Jaeggli, Baker, Roberts) claims that *-en* is, in fact, an argument of the verb, and as such is assigned both a case and a theta-role by the verb. Various mechanisms are used to ensure that it is the external theta-role which is assigned to *-en*. My analysis of the effects of passive morphology is rather different, and depends on a particular assumption about the lexical representations of verbs. First, I assume a distinction between a level of thematic content and a level of thematic positions. The level of thematic positions corresponds roughly to the level of predicate-argument structure used by Levin and Rappaport, Hale and Keyser, and others associated with the MIT Lexicon project. The level of thematic content is intermediate between predicate-argument structure and lexical-conceptual structure. It consists of a list of theta-roles, ordered by the thematic hierarchy, which are projected from the LCS and which are associated by rule with the thematic positions of the PAS. The theta-roles themselves can be represented in the

syntax by variables. Consistent with the results obtained by Levin and Rappaport, I have found no reason to assume that syntactic processes have access to specific thematic content.

A verb like *hire* will thus have the representation shown in (3). Note that the theta-role labels in (3) are for ease of exposition only. They are, strictly speaking, properly represented by variables.

(3)	hire	<agent, theme>	thematic content
		<---, --->	thematic positions
		(---)	structural case features

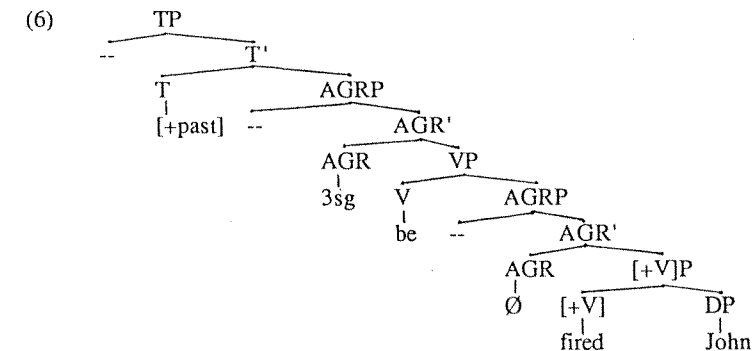
The effect of *-en* suffixation is, I claim, the discharge of one thematic position and one structural case feature. The level of thematic content is unaffected. This leaves *hire+en* with the representation shown in (4).

(4)	hire+en	<agent, theme>
		<--->

The two levels associate right-to-left, as argued in Cowper, Scholten and Smith (1987), leaving the agent theta-role free. Thus, the passive participle has no case, and one thematic position, associated with it. The free theta-role is what gives rise to the implicit argument in a so-called agentless passive. If a *by*-phrase is present, then the free theta-role will percolate so as to link to the preposition, and will be assigned to the object of *by*.

The D-structure of a passive clause such as (5) is thus as shown in (6):

(5) John was fired.



Recall that *be* moves from V to AGR and thence to T, and that *John* moves from its D-structure position through the various specifier positions ultimately to spec/TP so as to receive case.

3. Perfective *-en*

## 3.1 Transitive verbs

If there is indeed only one *-en* suffix in English, then it must have exactly the same effect on the verb in the perfective construction as it does in the passive. Differences between perfective and passive clauses must derive from other properties of these clauses. In particular, the case assigned to object position in a perfective clause cannot be the structural case originally associated with the verb,

since that case was discharged by *-en*. Similarly, the theta-position assigned to the subject of a perfective clause cannot originate with the verb. I would like to suggest that both the case assigned to the object, and the theta-position assigned to the subject, originate with the verb *have*. To make sense of this, let us first consider what the lexical representation of *have* might be.<sup>2</sup>

As shown by the sentences in (7), the thematic content of the arguments of *have* varies considerably, and seems to be determined by pragmatic factors in many cases. The semantic range is essentially the same as that exhibited by the possessive construction.

- (7) a. John has a painting he always likes to go look at. (It's hanging in the Tate Gallery. (John likes the painting))  
 b. John has a painting he wants to bid on at the auction. (John wants the painting)  
 c. John has a painting in the new exhibit at the Gallery. (John created the painting)  
 d. John has a painting in his bathroom. (John owns the painting.)  
 e. John had the cake decorated.  
 f. John had Bill decorate the cake. (John is the AGENT)  
 g. John had three people drop in unexpectedly yesterday. (John is the EXPERIENCER)  
 h. John has the measles.  
 i. John has a good chance of winning.

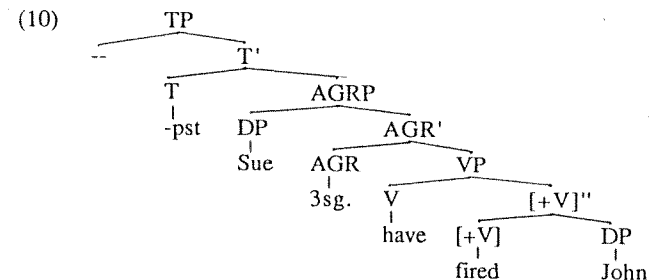
In fact, it seems that all *have* contributes is the fact that its two arguments are thematically related; in other words they are arguments of the same predicate. The two-tiered thematic structure proposed above allows a straightforward representation of this, as shown in (8).

- (8) *have*:      ⟨ --, -- ⟩                      Thematic Positions (PAS)  
                   ( -- )                              Structural Case features

What is special about *have* is that it is thematically underspecified; in other words, it has thematic positions which are devoid of thematic content. This is different from non-thematic positions such as, for example, the subject of a verb like *seem*. An underspecified thematic position must ultimately have its thematic content specified. With so-called main verb *have*, the thematic content is specified pragmatically. In perfectives, however, the subject position of *have* acquires thematic content in a different way.

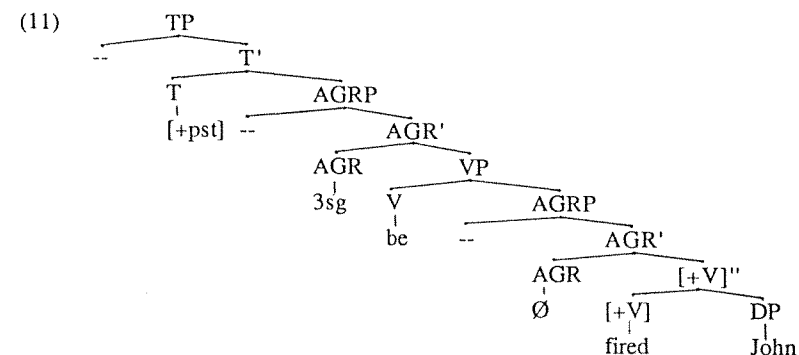
Let us suppose that a perfective clause such as (9) has the D-structure given in (10).

- (9) Sue has fired John



Ignoring for the moment the question of how *John* gets Case, let us look at how *Sue* might get theta-marked. The participle *fired*, as stated earlier, has only one thematic position associated with it. By right-to-left linking, this thematic position is linked to the theme role, and it is assigned to *John*. The agent theta-role associated with *fired* is not linked to a theta-position. However, the thematically underspecified verb *have* is the head of the immediately dominating category. I would like to suggest that the free thematic content is transmitted to *have* and linked to *have*'s external thematic position. The theta-role is then assigned to *Sue* in the normal way. The process of transmission seems to take place under conditions similar to those described by the head movement constraint of Chomsky (1986) and Baker (1987). In other words, the thematically underspecified element must properly govern the element with the free thematic content.

Let us now examine how the object receives Case in a perfective construction. Compare the perfective clause in (10) with the passive clause in (11).



First, why does *John* receive Case in object position in (10) but not in (11)? Assuming that *-en* discharges the structural case feature of the verb it attaches to, *John* cannot be receiving case only from *fired*. However, as stated above, *fired* in (10) is properly governed by a case-assigner, namely *have*. I am assuming, following Travis (1984), Torrego (1984) and Koopman (1983) that the trace of a verb retains the casemarking properties of the verb, so that even though *have* moves to AGR and then to T at S-structure, its trace can still govern and assign case. Let us suppose that *have* can somehow transmit its case feature to a verb it governs. Then *fired* will have a case feature to assign to *John*.

How might the transmission of the case feature take place? The best analysis would not stipulate any mechanism specific to case transmission, but

would have transmission follow automatically from other mechanisms. One possibility is that case transmission is simply case assignment. Under this view, have assigns its case feature to the participial phrase. The case feature then automatically percolates down to the participle itself. What must be explained is how the participle is able to reassign the case feature to its own object. In order to account for this, I adopt a distinction suggested by Massam (1985). She distinguishes the property of being a case-assigner from the property of having a case feature to assign. What -en removes is not the property of being a case-assigner, but rather the case feature. Thus, participles in -en formed from case-assigning verbs are still case-assigners; they simply lack a case feature. This distinction can be implemented in the representations I am proposing by distinguishing between an empty case tier and no case tier at all. The participle fired thus has a case tier, but it is empty.

Case transmission happens, then, when a case feature is assigned to a case-assigner. The case feature from have will fill in the empty case position on the case tier of the participle, and will be reassigned to the object of the participle.

Now consider (11). Lasnik (1988) has suggested that be is a case-assigner. If it is, then why can it not transmit a case feature to fired in the same way as have does?<sup>3</sup> This is not possible because of the intervening AGRP. Assuming that AGRP is a barrier to government of the participial phrase, fired is not governed by be and therefore cannot receive a case feature directly from be. Be may assign a case feature to AGRP, but since AGR is not a case assigner, the case feature cannot be reassigned. Note that if be is not a case-assigner, the problem does not arise. In either case, the internal argument of fired receives no case, and must undergo move I. The presence of AGRP also blocks any percolation of the subject theta-role from fired to be in (11). Thus there is no way for the subject position of be to be directly assigned a theta-role.

In general, then, the difference between a perfective construction and a passive construction is that in a perfective, the participle is governed by the auxiliary verb, while in a passive, the participial phrase is embedded inside AGRP, which blocks government by the auxiliary verb.

### 3.2 Intransitive Perfectives

We now turn to perfective constructions involving intransitive verbs. Intransitive verbs can be divided into two classes, following Perlmutter (1978) and Burzio (1986), depending on whether they take an internal argument (unaccusatives) or an external argument (unergatives) at D-structure. What is the result of affixing -en to each of these verb types? Let us look first at the unergative type, exemplified by the verb smile.

- (12) smile: (agent)  
 < -- > (external argument)  
 Ø (no case features)

I have claimed that the -en suffix has the effect of removing a verb's structural case feature and its external thematic position. This gives the derived lexical entry shown in (13).

- (13) smiled (agent)  
 Ø (no argument positions)  
 Ø<sup>4</sup> (no case features)

The agent theta-role, not being linked to an argument position, is then transmitted to the governing verb have, and assigned to the subject of have, just as with transitive verbs.

What about unaccusatives? There are two possibilities. Since unaccusative verbs lack an external argument, perhaps the -en suffix leaves the verb's argument structure intact. On the other hand, perhaps it removes the argument position, regardless of the fact that it is an internal argument. Let us explore the possibility that the suffix does, in fact, remove the argument position associated with the verb. This gives the pair of lexical entries shown in (14).

- (14) a. fall (theme)  
 < -- > (internal argument)  
 Ø (no case feature)  
 b. fallen (theme)  
 Ø (no argument positions)  
 Ø (no case feature)

The thematic content will be transmitted to have, and assigned to the subject of have.

Notice now that the representation of smiled and fallen are essentially identical, except for the specific thematic content which is, we assume, not visible to syntactic processes. This predicts that the structural difference between unergative and unaccusative verbs disappears in the perfective construction. Is this true?

One construction which is sensitive to unaccusativity is the there-construction, as shown in (15).

- (15) a. There arrived three children.  
 b. \*There smiled three children.

This construction is only possible if the noun phrase following the verb is an internal argument. If the analysis sketched above is correct, then the sentences in (16) should not exhibit the contrast found in (15). In fact, both (16a) and (16b) are ungrammatical for all informants who accept the judgements given in (15).

- (16) a. \*There have arrived three children.  
 b. \*There have smiled three children.

Admittedly, this is very weak confirmation. On the other hand, reliable syntactic arguments for unaccusativity in English are almost impossible to come by (see Levin and Rappaport 1988).

Now, suppose that -en suffixation were sensitive to the internal/external argument distinction, and only discharged the external thematic position. The representation of fallen would then be as in (17).

- (17) fallen (theme)  
 < -- >

This structure is incompatible with perfectives in have, since there is no free thematic content to link to have's subject position. It is thus predicted that unaccusative verbs will not form perfectives with have. While this is a bad prediction for English, it is a good one for French and several other languages, where unaccusative verbs form perfectives with be rather than have. It thus seems that the past participle suffix in English discharges any thematic position, whether

external or internal, while the corresponding suffix in French discharges only an external thematic position.

Let us now turn to the question of Case assignment in intransitive perfectives. With transitive perfectives, *have* assigned its case feature to the participle, which, being a case assigner, assigned it in turn to the object. Also, in transitive perfectives, the *-en* suffix had discharged a structural case position associated with the verb.

Two questions arise here. First, does *-en* need to discharge a structural case feature, even when the verb it is attached to has no case feature? Second, what happens to the structural case associated with *have* when there is no argument for it to be assigned to? I see two possible approaches here. One is that *-en* must absorb a case feature. If the verb lacks a case feature, the *-en* absorbs case from *have*. This is similar in some respects to the analyses of perfectives advanced by Hoekstra (1986) and Roberts (1987). These authors claim that in perfectives, *-en* always receives case from *have*. However, I believe that this approach is unavailable in a theory which treats *-en* as a lexical affix. Since intransitive participles are lexically formed, lexical integrity prevents the suffix from operating in the syntax and absorbing case from elsewhere. The second approach would say that *-en* only absorbs a case feature if one is present on the verb it attaches to. Then the question of what happens to *have*'s structural case becomes more interesting. Recall that case transmission is simply a consequence of the assignment of case to a case-assigner with available thematic positions. Intransitive verbs are not case-assigners, and in any case intransitive participles have no thematic positions. Thus, *Have* simply assigns its case to the participial phrase, and nothing further happens.

#### 4. Other considerations

The sentences in (18) can be analyzed straightforwardly in terms of the proposals presented here.

- (18) a. Elaine had fired the man.  
 b. Sue had the man fired.  
 c. Mary had her assistant fire the man.  
 d. John had the children laughing in no time.

(18a) is a straightforward perfective. (18b) is what happens when *have* takes a small clause (in other words a null-headed AGRP) whose complement is a participial phrase. *The man* cannot receive case in object position, since the AGRP node blocks case assignment from *have* to the participial phrase. It therefore moves to spec/AGRP, and receives case from *have* via exceptional case marking. (18c) also illustrates a small clause complement, this time an active one. (18d) has an AGRP complement headed by *-ing*.

I would now like to briefly compare the analysis of *-en* presented here with that proposed by Roberts (1987) and by Hoekstra (1986). Both these authors have *-en* as a syntactic constituent, and both claim that in passive constructions, *-en* receives case from the verb it is attached to, while in perfective constructions, it receives case from *have*. Additionally they claim that in passives, *-en* forms a clitic chain with the subject position, forcing the subject to move into VP so as to be governed by *-en*, while in perfectives, *-en* does not form a clitic chain with the subject, enabling the subject to remain in subject position. It is unclear from their work what this difference follows from, and as such their claims that *-en* is receiving a unified analysis are weakened. My proposal has *-en* behaving in an entirely consistent way in both passives and perfectives.

Finally, I would like to return to the question of the categorial status of participles in *-en*. I have been assuming provisionally that they are distinct both from verbs and from adjectives, but would like to propose now that they are simply

verbs. Their special status follows from the fact that there is a mismatch between their thematic content, their thematic positions and their case structure. They occur with *have* because *have* provides a thematic position to link to their free thematic content. They occur with *be* because *be* provides a non-thematic subject position into which the object may move to receive case.

#### 5. Conclusion

To conclude, I have proposed a unified treatment of participles in *-en* which accounts for both its passive and its perfective uses. In order to achieve this *-en* had to be treated as a lexical affix rather than as a syntactic argument of the verb. No stipulations referring to the presence of *have* or *be* were necessary. The transmission of the verb's external theta-role to subject position falls under head movement, while the transmission of the case feature from *have* to the object of the participle is simply case assignment.

#### Notes

- 1 I would like to thank Diane Massam for helpful discussion.
- 2 I assume that there is only one *have* in English.
- 3 I am not taking a position on whether *be* is a case-assigner.
- 4 I am ignoring for the moment the fact that there is no case feature on *smile* for the *-en* suffix to discharge.

#### REFERENCES

- Baker, Mark. 1987. *Incorporation*. The University of Chicago Press.
- Baker, Mark, Kyle Johnson and Ian Roberts. 'Passive Arguments Raised'. to appear in *Linguistic Inquiry*.
- Chomsky, Noam. 1989. 'Some Notes on Economy of Derivation and Representation'. in MIT Working Papers in Linguistics, vol. 10.
- Cowper, Elizabeth, Liduina Scholten and Karen Smith. 1987. 'Parameters in Case Assignment' Paper presented to the Canadian Linguistics Association, McMaster University.
- di Sciullo Anne-Marie, and Edwin Williams. 1987. *On the Definition of Word*. MIT press
- Hale, Kenneth, and S. Jay Keyser
- Hoekstra, Teun. 1986. 'Verbal Affixation' ms.
- Jaeggli, Osvaldo. 1987. 'Passive' *Linguistic Inquiry* 17:587-622.
- Kitagawa, Yoshihisa. 1985. 'Small but Clausal' in *Papers from the 21st Regional Meeting of the Chicago Linguistics Society*.
- Levin and Rappaport. 1988. Paper given at NELS 19.
- Massam, Diane. 1985. *Case Theory and the Projection Principle*. Unpublished Doctoral Dissertation, MIT.
- Pollock, Jean-Yves. 1987. 'Verb Movement, UG and the Structure of IP' ms., Université de Rennes.
- Rappaport, Malka, and Beth Levin. 1986 'What to do with Theta-Roles' MIT Lexicon Project Working Papers #11.
- Rivero, Maria-Luisa. 1989. 'The Location of Non-Active Voice in Albanian and Modern Greek' ms., University of Ottawa.
- Roberts, Ian. 1987. *The Representation of Implicit and Dethematized Subjects*. Foris Publications, Dordrecht.