Technical Reports (CIS)   Department of Computer & Information Science

May 1988

Remarks on Causatives and Passive

Beatrice Santorini
University of Pennsylvania

Caroline Heycock
University of Pennsylvania

Remarks on Causatives and Passive

Abstract

The investigation of causative constructions has been a topic of enduring interest among linguists, generative and non-generative alike. For one thing, the variability and sheer complexity of the relevant empirical domain, even within a group of closely related languages such as Romance, poses considerable and often daunting descriptive challenges. On the other hand, comparative work by linguists of various theoretical persuasions (Aissen 1974, Aissen 1979, Baker 1985, Comrie 1976, Marantz 1984, Zubizarreta 1982, Zubizarreta 1985, among many others) has shown that certain properties of causatives recur with striking regularity among unrelated and typologically otherwise diverse languages, in the absence of areal contact. This holds out the hope that the bewildering variety of data that we are faced with when we consider causative constructions can be understood with reference to a relatively small number of causative types. At first glance, the most salient distinction is that between syntactic and morphological causative formation. As is well known, in some languages the causative is expressed by means of syntactic complementation, as in the English example in (I), whereas in others it involves morphological affixation, as in the Japanese equivalent of (1) given in (2).

Comments

REMARKS ON CAUSATIVES
AND PASSIVE

Beatrice Santorini
Caroline Heycock

MS-CIS-88-33
LINC LAB 112

Department of Computer and Information Science
School of Engineering and Applied Science
University of Pennsylvania
Philadelphia, PA 19104

May 1988

Remarks on causatives and passive

Beatrice Santorini and Caroline Heycock
Department of Linguistics
University of Pennsylvania
Philadelphia, PA 19104

Table of Contents

1. Introduction

The investigation of causative constructions has been a topic of enduring interest among linguists, generative and non-generative alike.[1] For one thing, the variability and sheer complexity of the relevant empirical domain, even within a group of closely related languages such as Romance, poses considerable and often daunting descriptive challenges. On the other hand, comparative work by linguists of various theoretical persuasions (Aissen 1974, Aissen 1979, Baker 1985, Comrie 1976, Marantz 1984, Zubizarreta 1982, Zubizarreta 1985, among many others) has shown that certain properties of causatives recur with striking regularity among unrelated and typologically otherwise diverse languages, in the absence of areal contact. This holds out the hope that the bewildering variety of data that we are faced with when we consider causative constructions can be understood with reference to a relatively small number of causative types. At first glance, the most salient distinction is that between syntactic and morphological causative formation. As is well known, in some languages the causative is expressed by means of syntactic complementation, as in the English example in (1), whereas in others it involves morphological affixation, as in the Japanese equivalent of (1) given in (2).

(1)
>   The professor made the students read the book.

(2)
>   Sensei   -ga   gakusei -ni   hon -o   yom -ase-ta.
>   professor-NOM students-DAT book-ACC   read-CS -PST
>   same as (1)

According to the most straightforward interpretation of these data, the fact that (1) contains two morphologically independent verbs shows that the causative in English is biclausal, and the fact that (2) contains a single (albeit morphologically complex) verb shows that the Japanese causative is monoclausal. Matters turn out not to be this simple, however. For while there is no doubt that the causative verb *yomaseta* forms one word by phonological and morphological criteria, there is good evidence that the causative construction in Japanese, contrary to superficial appearances, exhibits the syntactic properties of a biclausal structure (see references in Section 3). Thus, the Japanese causative provides clear evidence for a mismatch between syntax and morphology. Conversely, not all causatives that contain two morphologically independent verbs behave syntactically like biclausal structures. We will review evidence below, for instance, that the Italian causative illustrated in (3) has many of the syntactic properties of a monoclausal structure despite the fact that the causative verb *fare* and the complement verb *leggere* do not form a single word.[2]

---

[2]We will use the term 'complement verb' to refer to the verb of the embedded clause in a syntactic causative or to the stem of the complex verb in a morphological causative. We will refer to the subject of the causative verb/affix as '(matrix) subject,' to the argument that could be analyzed as the object of the causative verb or as the subject of the complement verb as the 'causee,' and to the other arguments of the complement verb as '(complement) direct object' and '(complement) indirect object.' It should be clear that our use of the terms 'matrix' and 'complement' is intended only to provide a convenient means of reference and not to bias the discussion in favor of biclausal analyses.

(3)
```
Il   professore ha   fatto leggere il   libro agli    studenti.
the professor   has made  read    the book  to-the students
same as (1)
```

Thus, the Italian causative construction represents the mirror image of the Japanese case.

The Japanese and Italian examples in (2) and (3) illustrate a further important property of causative constructions, namely the fact that in many languages the combination consisting of the causative and the complement verb is associated with the case array of a morphologically simple ditransitive verb. Clearly, these case assignment facts are another instance of a mismatch between syntax and morphology, since they are independent of whether the causative and the complement verb form a single word, as in Japanese, or not, as in Italian.

We have had to impose drastic restrictions on the scope of our investigation. For one thing, we discuss only data from English, French, Italian and Japanese, both because we are familiar with them and because there is a large and accessible literature available on causative constructions in these languages. We will mention only in passing the well-known causative construction illustrated for Italian in (4), in which the causee is optionally realized in the same way as the agent of a passive clause.

(4)
```
Il   professore ha   fatto leggere il   libro (dagli   studenti).
the professor   has made  read    the book   by-the students
The professor had the book read (by the students).
```

This construction is interesting because the failure of the complement verb to bear passive morphology in the construction in (4) gives rise to a *prima facie* violation of the theta-criterion. We hope to investigate the syntactic properties of this type of causative in future work, but we exclude it from the scope of the present paper because there is good evidence that the *da* causative is distinct from the *a*-causative in (3) despite their striking superficial similarity (Kayne 1975, Burzio 1981, Burzio 1986). Further, we will not discuss at all the fact that embedding inherently reflexive verbs under a causative affects the realization of the reflexive element in languages like Dutch, French and Italian. Finally, although any discussion of causatives inevitably touches upon a wide variety of syntactic phenomena, our investigation will focus on the interaction of the causative with the passive. Even given this limited domain, we are acutely aware that the work reported here has often not been as constructive as we would like. However, we hope that our criticisms of other linguists' analyses will help to point the way to more satisfactory solutions to the many puzzles raised by causative constructions.

To the extent that we formalize our analyses of the causative constructions that we discuss, we turn to the Tree-Adjoining Grammar (TAG) formalism developed by Joshi and his associates. Readers unfamiliar with this formalism will find an exposition of its mathematical properties in Joshi, Levy and Takahashi 1975, Joshi 1983 and Kroch and Joshi 1985. The relevance of TAG to linguistic theory is discussed in detail in Kroch and Joshi 1985, 1987 and Kroch 1986, 1987. The remainder of this paper is organized as follows. In Section 2, we consider the most straightforward of the causative constructions under investigation, namely the one illustrated for English in (1), which exhibits none of the mismatches between syntax and morphology described above. Nevertheless, the English construction is of great interest because of the fact that the causee cannot be promoted to matrix subject. In Section 3, we consider the Japanese causative construction, which, though biclausal like the English one, contrasts with it in that the causee can be promoted to matrix subject. Section 4 discusses the French causative, which in many ways closely resembles the Japanese causative but does not allow passivization of the causee. In Section 5, we propose a

monoclausal analysis of the causative in Italian, the only language in our sample to permit complement objects to be promoted to matrix subject. Finally, Section 6 provides a brief summary of the results of this paper and outlines several issues for further research.

2. English

In this section, we consider the English causative construction illustrated in (1), repeated here as (5).

(5)
    The professor made the students read the book.

Our discussion focuses on *make* with occasional references to *let* and causative *have*. After briefly motivating the hypothesis that the complements of *make* are small clauses, we discuss the interaction of the causative construction with the passive. While embedding passive clauses under *make* is generally possible, it is a well-known and puzzling fact that passivizing the causative verb itself, as in (6), is ungrammatical.

(6)
    ***The students were made read the book.**

As has often been observed, replacing the bare infinitive by the *to*-infinitive in sentences such as (6) renders them completely acceptable.

(7)
    The students were made to read the book.

We will review three proposals to explain the contrast between (6) and (7), concluding that none of them is completely satisfactory. We then observe that passives of causatives and perception verbs on the one hand and raising predicates and the passives of Exceptional Case Marking verbs on the other behave in a parallel way with respect to the distribution of bare and *to*-infinitive complements. Based on this observation, we suggest that bare infinitive passives as in (6) are ungrammatical for the same (as yet undetermined) reason that (8) is.

(8)
    ***The students seemed read the book.**

We argue that *to*-infinitive passives as in (7) are syntactically unrelated to their apparent active counterparts in (5) and that they should be analyzed as Exceptional Case Marking passives. This analysis is supported by cross-linguistic evidence from Dutch and German. Finally, we note that bare infinitive passivization appears to have been grammatical in earlier stages of English. We leave for future research the reconciliation of this fact with the analysis of bare infinitive passives that we present.

2.1. Complement structure of *make*

Three distinct treatments of the complement structure of *make* have been proposed over the years. First, Rosenbaum 1967 analyzed *make* as an object control verb on the basis of the non-synonymy of sentences containing active and passive complements, as in (9).[3]

(9)
a.   **I made the doctor examine John.**
b.   **I made John be examined by the doctor.**

At the time that Rosenbaum proposed his analysis, passive clauses were assumed to be derived from underlying

---

[3]Our discussion here closely follows that in Cattell 1984:260f.

structures essentially identical to active clauses. Thus, one potential derivation for the sentences in (9) would have had them share the underlying structure in (10), in which *make* subcategorizes for a clausal complement.

(10)
        I made [$_s$the doctor examine John]

But given the then-current assumption that transformations could not change truth-conditional meaning, such a derivation would have been unable to capture the non-synonymy of the sentences in (9). The meaning difference between (9a) and (9b) thus forced Rosenbaum to treat the argument immediately following *make* as a matrix object. Neither of Rosenbaum's assumptions has survived the transition from the *Aspects* model to current syntactic theory, however, and we will reject the object control analysis of *make* on two grounds. First, the complements of *make*, unlike those of clear instances of control verbs, are bare infinitives rather than *to*-infinitives. Second, under the assumption that lexical heads cannot subcategorize for pleonastic elements, the object control analysis is incompatible with the fact that such elements can immediately follow *make*, as in (11).[4]

(11)
a.   He made it seem quite obvious that he had no interest in the job.
b.   Her so-called editing has made there be more mistakes in the report than there were before.

We will also reject a second analysis, according to which *make* subcategorizes for an NP VP sequence (Williams 1983:303). There are formal as well as empirical reasons for us to do so. On the one hand, the NP VP analysis in conjunction with the formal constraints of TAG would force us to derive any sentence containing *make*, regardless of its syntactic complexity, by using a single initial tree. To see this, consider an attempt to derive (5) by using the trees in (12) and adjoining the auxiliary tree at the root node of the initial tree.[5]

(12)
```
        Initial tree                         Auxiliary tree

            VP                                    S
           / \                                   / \
          V   NP                               NP    VP
          |   |                                /    / | \
        read  the                            the   V NP  VP
              book                        professor / |
                                             made   the
                                                  students
```

Such a derivation is ruled out in a TAG for two reasons: the initial tree in (12 is not rooted in S, and the auxiliary tree violates the constraint that the root and foot nodes of elementary trees in a TAG must bear the same category

---

[4]This argument crucially assumes that *make* has a single subcategorization frame.

[5]For expository convenience, we disregard the distinction between S and S'.

label.[6] While it is arguable that sentences containing one level of embedding might be derived by using a single initial tree, such a solution becomes implausible with more complex sentences containing more than one level of embedding. In addition to this formal argument, the empirical argument against the object control analysis that is based on the existence of pleonastic causees applies with equal force against the NP VP analysis. In order to account straightforwardly for the grammaticality of sentences like those in (11), it has therefore been proposed that *make* subcategorizes for small clauses (Chomsky 1981, Stowell 1981:260), an analysis that we will adopt. The small clause analysis allows us to derive sentences like (5) in a TAG by using the elementary trees in (13). The derivation is completely straightforward and involves adjoining the auxiliary tree at the root node of the initial tree.

(13)

```
        Initial tree                        Auxiliary tree

             S                                   S
            / \                                 / \
          NP   VP                             NP   VP
         /    / \                            /    / \
       the   V   NP                        the   V   S
    students  |    |                    professor  |
           read   the                             made
                  book
```

2.2. Embedded passives

We turn now to passive complements of *make*. As we saw in (9b), embedding passive clauses under *make* is possible in English, a fact that is not surprising under any of the three analyses reviewed above. The derivation of such sentences in a TAG is unproblematic, and we will not discuss it in detail here; it is only necessary to replace active initial trees as in (13) by their passive counterparts. For a treatment of the relationship between the active and the passive in a TAG, we refer the reader to Kroch and Joshi 1985:57ff. Not all instances of embedded passive clauses are equally acceptable, however. The sentences in (14), for instance, are ruled out (Aissen 1974:342, fn. 17).

(14)
a. *John made his clothes be washed.
b. *Alex made his hair be cut by Rosie.
c. *Alex made the toast be buttered by Rosie.

One's initial temptation is to capture the contrast between (9b) and (14) by associating with *make* a constraint according to which the causee must refer to an entity capable of volition. But such a constraint is empirically inadequate since sentences like those in (15) are acceptable despite the fact that the causee is non-volitional.

---

[6]A further conceivable derivation of (5) is based on the auxiliary tree in (i).

(i)

```
        Auxiliary tree

             S
            / \
          NP   VP
         /    / | \
       the   V  NP  VP
    professor  |
            made
```
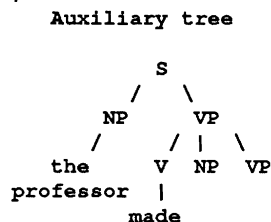
The tree in (i), like the auxiliary tree in (12), violates the well-formedness condition constraining root and foot nodes to be categorially identical. In addition, it has two foot nodes rather than one. Hence, a derivation that is based on (i) is ruled out, even if the causee and the complement VP were treated as members of a single initial tree set.

(15)
a.   John made the fan blow the papers all over the room.
b.   John was unable to make the boulder budge an inch.
c.   I know a soprano who can make wineglasses shatter to pieces by
     simply concentrating on her high C.

Nor can the unacceptability of the sentences in (14) be due to a constraint against promoting inanimate objects over animate subjects, as exists in Japanese, since such a constraint fails to hold in simple passive clauses in English. Furthermore, such a constraint would not extend to (16), which is no more acceptable than the sentences in (14), even though its underlying complement subject is inanimate.

(16)
     *John made the papers be blown all over the room by the fan.

The contrast between (15a) and (16) suggests that the relevant descriptive generalization is that the causee must be the most highly agentive argument in the embedded clause.[7] Clearly, this generalization is related to the more specific constraint mentioned above for Japanese. As (14a) shows, it is immaterial whether an agent is syntactically expressed or not. Here, we must leave open the important question of how the above generalization is to be reconciled with the structural analysis that we have given, under which the causee is not an argument of *make* and hence not subject to selectional restrictions.[8]

2.3. Matrix passives

Apart from the thematic restriction just discussed, embedding passive complements under *make* is grammatical in English. Promoting the causee to matrix subject, on the other hand, is ruled out, as we saw in (6). This fact is perhaps slightly less surprising under the small clause analysis than under the other two analyses reviewed above, since the causee is not an argument of the causative verb. Nevertheless, the ill-formedness of bare infinitive passives is unexpected in English given the grammaticality of the passive counterparts to Exceptional Case Marking constructions in which the underlying complement subject is not an argument of the matrix verb either. This is shown by the fact that it can be a pleonastic element.

(17)
     There is expected to be no further word until later tonight.

Moreover, small clauses headed by any lexical category other than V freely permit matrix passivization in English. We show this for propositional small clauses and the closely related resultative and depictive constructions in (18)-(20), respectively.

(18)
a.   He is considered an exceptionally able administrator.
b.   She is considered competent/hard-working/talented.
c.   He is expected off the ship by midnight/back shortly.

---

[7]If there are two animate arguments, as in the case of (5b), either may be treated as most highly agentive.

[8]We have found some counterexamples to the proposed generalization that seem to us to be fairly acceptable; it is perhaps significant that the causees contain the distributive quantifier *each*.

(i)
a.   ?The owner of the hotel made each of the rooms be cleaned by a different maid.
b.   ?John made each of the grapes be peeled and seeded (by his kids) before adding them
     to the fruit salad.

(19)
a.   No woman has ever been elected president of the United States.
b.   The dishes haven't been wiped dry yet.
c.   The door was blown shut by a gust of wind.
d.   All of these pieces of wire need to be bent into figure-eights.

(20)
a.   These tablets should be swallowed whole.
b.   That chair was bought used/in bad shape.

There is, however, a striking exception to the resistance of English causatives to matrix passivization, namely the idiomatic expression *let go*.

(21)
        Half of the prisoners were let go yesterday.

It is noteworthy that matrix passivization is acceptable only on the idiomatic reading of *let go*, as shown by the contrast between (21) and (22).

(22)
        *Our kids aren't let go to the store alone at night.

This suggests that *let go* in its idiomatic usage has undergone reanalysis.[9] There are two sources of evidence for this. First, the combination *let go*, with the specialized meaning 'release one's hold on', can behave like a simple intransitive verb that selects PP's headed by *of*.[10] Second, in British English, *let go* can in addition behave like a transitive particle verb. That is, pronouns cannot follow the sequence *let go* (presumably for prosodic reasons), while full NP's are subject to no such constraint. The parallelism between particle verbs and *let go* is illustrated in (23) and (24). Note that the position of the clause-final NP in (24d) cannot be due to heavy NP shift.[11]

(23)
a.   She picked it up.
b.   *She picked up it.

c.   She picked the mail up.
d.   She picked up the mail.

(24)
a.   She let it go.
b.   *She let go it.

c.   He let the prisoner go.
d.   He let go the ball.

For the moment, we conclude from these two peculiarities that the idiom *let go* represents what amounts to a lexical exception to the general impossibility of matrix passivization in English.

Several proposals to explain the contrast between bare and *to*-infinitive passives have been put forward in the literature (Roeper and Vergnaud 1980, Higginbotham 1982, Williams 1983, Coopmans 1985). Williams 1983:303

---

[9]Note that the elements undergoing reanalysis are not adjacent in (21). This shows that adjacency is not a necessary condition for at least certain types of reanalysis.

[10]Cf. the similar collocation *make do with*.

[11]The reader will observe that we have chosen different nouns to illustrate the two possible orders of the full NP with respect to *go*. This is because the word order variants in (24c) and (24d) are associated with distinct semantic nuances, which can be paraphrased as 'set free' and 'lose one's grasp on', respectively. Exchanging *prisoner* and *ball* in (24c) and (24d) thus gives rise to pragmatically deviant readings.

attributes the ungrammaticality of bare infinitive passives in sentences like (6) to the fact that it violates the surface filter in (25), where the feature 'PrP' stands for 'present participle.'

(25)
$$*V_{\alpha PrP} \ VP_{\alpha PrP}$$

According to this filter, bare infinitive passives and the double -ing construction discussed by Ross 1972 (*John is keeping swimming) are both instances of the same phenomenon. We regard this proposal as unsatisfactory in several respects. First, violations of Ross's double -ing filter are considerably more frequent and acceptable than instances of bare infinitive passives, suggesting that a unitary analysis of the two phenomena is on the wrong track. Second, the verb help can immediately precede VP, as shown in (26).

(26)
    I [$_V$helped] [$_{VP}$do the dishes].

Third, if we assume with Williams that traces are invisible for the filter, his own usage on the same page that he proposes it provides a counterexample to it (1983:303): "... with all the problems that we have seen attend such assignments." Acceptable V-VP sequences arise in connection with instances of A'-binding other than relative clause formation as well.[12]

(27)
a.   Who have you never once heard raise her voice?
b.   Rostropovitch, I've seen conduct on three separate occasions.
c.   At length, hoping to dispel his melancholy, the ailing maharajah
      had perform for him the young Gypsy juggler whom he had rescued on
      his last hunting expedition from the jaws of a rabid Bengal tiger.

We conclude from these facts that Williams' proposed surface filter is empirically inadequate.

Though Williams makes no claims concerning the cross-linguistic validity of the surface filter in (25), it is worth noting that even if the filter were empirically adequate for English, attributing to it the ungrammaticality of bare infinitive passives in English precludes a unitary treatment of this phenomenon across languages. As (28) shows, neither French nor German respects the filter.[13]

(28)
a.   Il [$_V$faut]   [$_{VP}$resoudre ce   probleme].   (French)
      it   is-necessary   solve   this problem
      'This problem needs to be solved.'

b.   Wir [$_V$wollen] [$_{VP}$tanzen].   (German)
      we   want-to   dance
      'We want to dance.'

Nevertheless, matrix passivization of causatives is as unacceptable in these languages as it is in English, cf. especially the minimal contrast in French in (29).[14]

---

[12]Note that heavy NP shift treats the causee like a direct object in (27c), though causees in English behave like subjects with respect to the binding principles and with respect to being able to be realized as pleonastic elements. This shows that heavy NP shift in English, in contrast to French, for instance, is sensitive to case marking rather than to grammatical functions.

[13]We take it to be irrelevant that the adjacency of the verb and the VP in the German example in (28b) is a result of verb-second movement.

[14]German has a little-understood constraint according to which past participles that govern infinitives are themselves realized as bare infinitives under certain complex conditions (den Besten and Edmondson 1983, Hoeksema 1986). The ungrammaticality of (30) is not due to a violation of this constraint, however, since the result of replacing the past participle gelassen by the corresponding infinitive lassen is even less acceptable than the example in the text.

```
(29)
a.   Elle a    [_Vfait] [_VPrire] son ami.  (French)
     she  has   made     laugh her friend
     'She made her friend laugh.'

b.   *Son ami    a   ete [_Vfait] [_VPrire].
     her friend has been  made     laugh
     'Her friend was made to laugh.'

(30)
     *Ihr Freund wurde lachen gelassen.   (German)
     her friend was    laugh  let-part
     same as (29b)
```

Therefore, cross-linguistic considerations in addition to language-particular evidence argue against invoking the surface filter in (25) as an explanation for the impossibility of promoting the causee to matrix subject in English.

Higginbotham 1982 proposes a semantic explanation of the contrast between bare and *to*-infinitive passives. He develops an account of perception verbs and causatives according to which the bare infinitive complements of such verbs correspond semantically to events. Adopting the view that the interpretation of events involves existential quantification (Davidson 1967), Higginbotham 1982:9 assigns to the sentence in (31a) the semantic interpretation in (31b).

```
(31)
a.   John sees Mary leave.
b.   [Ex: x is an event and leave (Mary, x)] John sees x
```

This semantic interpretation is reflected in the syntax by the fact that bare infinitive complements undergo raising at LF. Thus, the LF-structures corresponding to (5) and (6) are as given in (32). We follow Higginbotham's lead in not explicitly representing the internal structure of the raised complements in (32).

```
(32)
a.   [the students read the book]_i [the professor made t_i]
b.   [t_i read the book]_j [the students_i were made t_j]
```

In contrast to (32a), where the well-formedness conditions on trace binding are satisfied, the structure in (32b) contains a trace, namely t_i, which is neither bound nor even properly governed.[15] Bare infinitive passives are thus ruled out as binding theory violations at LF. According to Higginbotham, *to*-infinitives do not undergo raising at LF and hence, *to*-infinitive passives as in (7) are well-formed.

Higginbotham's account is discussed in some detail in Kroch, Santorini and Heycock 1988. As observed there, the principal problem with his approach is that it makes incorrect predictions for other languages, most notably Italian. We have seen that Higginbotham claims that *to*-infinitives, unlike bare infinitives, do not undergo raising at LF, but remain embedded. He argues that this accounts for certain semantic differences between the two constructions. In particular, he notes that passive sentences like (207) should have only an 'epistemic interpretation' (p.28).

```
(207)
Mary was seen to sing.
```

---

[15]Cf. the marginal acceptability of *Appreciated by her colleagues, Zelda has certainly never been*, which at least satisfies the latter requirement.

In this respect sentences like (207) are similar to those with tensed complements, and contrast with sentences with bare infinitive complements. The correctness of this prediction is illustrated by the contrast between the self-contradictory sentences (208a) and (208b) on the one hand, and the semantically coherent (208c) on the other:

(208)
a. Many people saw that he was writing Japanese, but they all
   thought he was just doodling.
b. He was seen to write Japanese, but everyone who saw him
   thought he was just doodling.
c. Many people saw him write Japanese, but they all thought
   he was just doodling.

This contrast is entirely consistent with Higgenbotham's analysis, since it can be derived from the fact that only in (208c) does the existential quantifier over events take scope over the matrix verb. Clearly, by deriving both the epistemically neutral reading and the ungrammaticality of the passive from the raising of bare infinitives at LF, Higginbotham is predicting that these two phenomena will always appear together, so that passivized perception verbs with clausal complements will inevitably be associated with epistemic readings. If we look at the southern Romance languages, however, we find that this is not the case. In Italian, for example, passives of perception verbs are epistemically neutral[16]. That is, neither of the sentences in (212) is self-contradictory:

(212)
a. Molti hanno sentito Gianni cantare, ma tutti pensano sempre
    many have   heard   Gianni sing,   but all think   always
             che si stia lamentando
             that refl is groaning
    'Many people have heard Gianni sing, but all of them always
     think that he is groaning.'

b. Gianni e stato sentito cantare da molti, ma tutti pensano sempre
    Gianni has been heard   sing   by many, but all think   always
             che si stia lamentando
             that refl is groaning
    'Gianni has been heard singing by many, but all of them always
     think that he is groaning.'

This shows that Higginbotham's analysis cannot be extended to Italian, since the embedded structure he would have to assign to passives like (212b), in order to avoid exactly the type of violation of the binding theory that ruled out (32) above, would preclude the epistemically neutral interpretation.

Though not completely satisfactory, the most interesting analysis of the contrast between bare infinitive and *to*-infinitive passives in the literature seems to us to be the one presented in Roeper and Vergnaud 1980.[17] According to them, the bare infinitive complements of causatives and verbs of perception need to be assigned case just like NP's. In an active sentence like (5), the complement verb receives case from *make*, but in the corresponding passive in (6), the passive participle is unable to assign case. The claim is thus that the ungrammaticality of bare infinitive passives reduces to the case filter. As we saw in (7), the sentences in question can be saved by inserting *to*. Under Roeper and Vergnaud's approach, it is natural to consider *to*-insertion as

---

[16]We are indebted to Raffaella Zanuttini for discussing this issue with us and providing the examples in the text.

[17]As we have been unable to obtain a copy of this unpublished paper, our remarks are based on the summary in Fabb 1984:72. The analysis presented in Coopmans 1985 is derivative of Roeper and Vergnaud's, and we will therefore not discuss it separately.

playing the same role for bare infinitives that *of*-insertion does for complement NP's in derived nominalizations.[18] Apart from their functional equivalence as mechanisms of "last resort", there is a further interesting parallel between *of* and *to* in their property as semantically empty case assigners. In both cases, we find lexical exceptions to the insertion rule. It has been observed that *of*-insertion is not completely general in derived nominals (Wasow 1977:338), cf. *our thanks/help to/*of the hostess, our salute to/*of the veterans, our blame *of/*to the bureaucracy*). Similarly, there are lexical exceptions to *to*-insertion. In contrast to *make*, *help* and the verbs of perception, *let* does not permit matrix passivization at all.[19]

> (36)
> a.   We don't let the children stay up late.
> b.   *Small children shouldn't be let (to) stay up late.

It is clear that the notion of case required to explain the contrast between bare and *to*-infinitive passives cannot be reduced entirely to the notion of nominal case. As the contrast between (37) and (38) shows, verbal case differs crucially from nominal case in that it can only be assigned by *to*.[20]

> (37)
> a.   *the possibility of meet someone eligible
> b.   *I prevented her from leave.

> (38)
> a.   the chance to meet someone eligible
> b.   I allowed her to leave.

Since this property of verbal case must be stipulated, the explanatory value of the case filter analysis is accordingly reduced.

Nevertheless, the basic intuition underlying Roeper and Vergnaud's approach appears to us to be sound. It is consistent, for instance, with the fact that raising adjectives and passive participles of Exceptional Case Marking verbs take *to*-infinitives rather than bare infinitives as complements, as shown in (39) and (40), respectively.[21]

> (39)
> a.   John is certain *(to) be willing to take on the job.
> b.   She is likely *(to) want to go.
> c.   Unemployment figures are apt *(to) go up in the winter.

---

[18]It might be argued that the very similarity of the two insertion rules is problematic, for if the bare infinitive's case requirement is attributed to its nominal properties, as seems reasonable, one might expect *of* rather than *to* to be inserted in the matrix passive of causatives and perception verbs. This argument fails to hold up, however, in view of the fact that there is lexically governed variation between the insertion of *of* and *to* in derived nominals, cf. the examples immediately following in the text.

[19]Causative *have* does not permit matrix passivization either, as shown in (i).

> (i)
> a.   We'll just have her come over some other time.
> b.   *She'll just be had (to) come over some other time.

But (i.b), in contrast to (36b), is independently ruled out by the fact that *have*, apart from a handful of exceptions such as the jocular *A good time was had by all* and passives of idiomatic expressions like *have recourse to*, does not permit the passive.

> (ii)
> a.   I have two sisters.
> b.   *Two sisters are had (by me).

[20]The acceptability of replacing the bare infinitives in (37) by gerunds shows that gerunds in these contexts have the syntactic properties of both nouns and verbs: like nouns, they can be assigned case by prepositions other than *to*, but like verbs, they are case-assigners themselves.

[21]We thank Anthony Kroch for pointing out these facts to us and discussing their implications with us.

```
(40)
a.    John is believed *(to) be willing to take on the job.
b.    There are claimed *(to) be crucial differences between the two
      constructions.
c.    She is considered *(to) be the best candidate.
```

One might be tempted to reduce the ungrammaticality of bare infinitive passives and that of the bare infinitive versions of (39) and (40) to the same source by analyzing the passive participles of causatives and perception verbs as adjectives. The relevant generalization would be that adjectives cannot subcategorize for VP complements. However, this is not the right tack to take for two reasons. First, the passive participles of causatives and perception verbs can be shown to be verbs, not adjectives, by one of the diagnostics proposed in Wasow 1977, namely the possibility of embedding under *seem*. The examples in (41) and (42) show that *seem* embeds small clauses headed by adjectives, including adjectival passives, but not ones headed by transformational, i.e. verbal, passives (Wasow 1977:343).[22]

```
(41)
a.    John seems friendly/sick/taciturn.
b.    John seems annoyed/interested/resigned.

(42)
a.    *John seems given first prize every time we have a contest.
b.    *John seems told the bad news.
```

As Kroch and Joshi 1985:61, fn. 21 point out, the passive participles of causatives and perception verbs pattern with the verbal passive.

```
(43)
a.    *John seems seen to have left.
b.    *John seems made to leave.
```

Second, even if the generalization stated above were descriptively adequate, it would be too weak, since the contrast between bare and *to*-infinitives is not restricted to adjectives and participles, but extends to raising verbs as well, as shown in (44).[23]

```
(44)
a.    John appears *(to) be willing to take on the job.
b.    She seems *(to) want to go.
c.    Unemployment figures tend *(to) go up in the winter.
```

---

[22]Fabb 1984:150 considers the examples in (i) to be acceptable.

```
(i)
a.    Mick seems widely considered a fool.
b.    Ronnie seems generally thought insipid.
```

Since Fabb is British, his judgments might be taken to indicate that British English, in contrast to American English, allows *seem* to embed verbal passives. But this interpretation is ruled out by the fact that Fabb agrees with Wasow's judgments on (42). While the examples in (i) show that the acceptability of embedding a participle under *seem* is not a completely reliable indication of its adjectival status, we assume that our conclusion concerning the verbal status of the passive participles of causatives and perception verbs, which is based on the unacceptability rather than the acceptability of embedding a participle, remains unaffected.

[23]Under Roeper and Vergnaud's approach, the ungrammaticality of the bare infinitive versions of (39), (40) and (44) could be related to the fact that the relevant lexical heads fail to assign nominal case to the subjects of their complements. The fact that the complements of the active forms of Exceptional Case Marking verbs are *to*-infinitives rather than bare infinitives is somewhat unexpected under this approach. However, it would fit nicely with a historical development in which the passives of today's Exceptional Case Marking verbs arose earlier than the corresponding actives, perhaps by analogy to constructions with raising adjectives (Anthony Kroch, pers. comm.). Cf. the fact that Dutch *achten* and French *supposer*, both meaning 'suppose', appear in passive but not active Exceptional Case Marking constructions.

The parallelism between raising predicates and the passives of causatives is discussed in detail in Kroch, Santorini and Heycock 1988, where it is argued that bare infinitive passivization of causatives and perception verbs is ruled out in Modern English for the same reason that bare infinitives are ruled out as complements in (39), (40) and (44). The apparent passive counterparts to sentences like (5), namely *to*-infinitive passives as in (7), bear no syntactic relationship to bare infinitive actives at all. Rather, the availability of *to*-infinitive passives of causatives and perception verbs in English is a consequence of two other syntactic properties: first, the fact that English freely permits Exceptional Case Marking passives as in (40) and second, that most causatives and perception verbs have variably taken *to*-infinitive complements in addition to bare infinitive complements in the course of the history of English (Jespersen 1933:341, Visser 1973:2250ff.). In the case of the perception verb *feel*, for instance, both subcategorization frames are available in contemporary English.[24]

(45)
a.   `I felt her tickle me.`
b.   `I felt her to be insincere.`

As a result, the passive in (46) is directly related to the Exceptional Case Marking construction in (45b).

(46)
    `She was felt to be insincere.`

With other verbs, like *make*, the subcategorization frames of the active and passive have drifted apart. Thus, the *to*-infinitive passive in (7) is no longer synchronically related to the active clause in (47), although the relation between sentences like (47) and (7) was still productive in relatively recent stages of Modern English (Visser 1973:2261f.).

(47)
    `The professor made the students to read the book.`

Similarly, though *to*-infinitive complements of active forms of *let* are rarely attested (Visser 1973:2261), *to*-infinitive passives of *let* are frequent (Jespersen 1940:318).

An analysis of the contrast between bare and *to*-infinitive passives along these lines is supported by cross-linguistic evidence from Dutch and German. Just as in English, raising verbs[25] obligatorily take *to*-infinitives in these languages, and bare infinitive passives of causatives and perception verbs are ruled out, apart from a small number of lexicalized exceptions comparable to *let go*. In contrast to English, however, neither Dutch nor German allows *to*-infinitive passives of causatives and perception verbs. Under our assumptions, this is exactly what is expected since these languages have no Exceptional Case Marking construction.[26] The Romance languages with the exception of French contrast with the Germanic languages in both respects. That is, in Romance, raising verbs take bare infinitive complements and bare infinitive passives are possible, at least with perception verbs. For an analysis of matrix passivization that treats both the Romance and the Germanic facts, see Kroch, Santorini and Heycock 1988.

---

[24]The *to*-infinitive is acceptable only when the complement verb is the copula. As has often been remarked, the bare and *to*-infinitive frames are associated with a sensory perception reading and an inference reading, respectively; hence, the ill-formedness of the bare infinitive counterpart of (45) given in (i).

(i)
    `*I felt her be insincere.`

[25]Neither Dutch nor German has raising adjectives.

[26]German does not allow Exceptional Case Marking constructions at all, while Dutch allows Exceptional Case Marking only in the passive of the verb *achten* 'suppose' (den Besten 1981:93), cf. fn. **24.

The above analysis accommodates the data of Modern English and is attractive on cross-linguistic grounds as well. It does not, however, accommodate straightforwardly the fact that bare infinitive passives of causatives and perception verbs have not always been ungrammatical in English. In what follows, we will simply present a brief synopsis of the history of bare infinitive passivization, leaving for future research the reconciliation of the analysis that we have proposed with the diachronic facts. According to Visser 1973:2408, matrix passivization "normally occur[red] without *to* before the infinitive" in Old English. Callaway 1913:59 (cited in Lightfoot 1979:266) confirms the fact that bare infinitive passives were possible with 'see' in Old English. Of the further development of bare infinitive passivization, Visser (1973:2409) writes: "In Middle English the structure with the plain infinitive survived in a number of cases, in which it held its ground by the side of the one with a *to*-infinitive. This principally happened with the participles *let, seen, heard, boden* (*bidden*) and *made* ... In Modern English all of them fell into disuse, except *let, seen, heard, bid(den), made* and a few others, [footnote omitted] while only *let, made* and *bid(den)* reached the twentieth century". For Modern English, Jespersen 1940:315 draws attention to "the frequency of *to* [in the passive] where the active has the bare infinitive", noting that matrix passivization "without *to* is rarer" than with it (317) and that "[s]ome English correspondents object to [bare infinitive passives] as not being colloquial English nowadays" (318). On the basis of this record, we conclude that English has undergone a syntactic change with regard to bare infinitive passivization.

While bare infinitive passivization appears to have at one time been a genuinely productive process in English, we recognize that a disproportionate share of Visser's and Jespersen's examples, especially the more recent ones, are passives of quasi-lexical collocations containing *let*, the most common being *let drop, let fall, let slip* and *let go* in both its literal and its idiomatic uses. Jespersen (1933:341) and Visser (1973:2409) both note the exceptional status of such collocations, which exhibit the same syntactic properties that we have already observed above in connection with idiomatic *let go*: first, they passivize readily, and second, they tend to behave with respect to word order like transitive particle verbs. The acceptability of bare infinitive passives with this small group of frozen collocations (for most American speakers, only idiomatic *let go*) is open to two interpretations. On the one hand, it could be that these cases simply preserve the productive pattern of an earlier stage of the language. We cannot rule out, however, that the expressions in question might form 'natural' complex predicates (cf. the fact that they all permit good one-word paraphrases), which might make them amenable to reanalysis and passivization quite independently of historical continuity. That is, the matrix passives of these collocations might be thought of either as living fossils or as mutations with a high likelihood of occurrence. The latter view would lead one to expect that in languages which are like English in ruling out matrix passives of causatives, exceptions to this general ban should tend to be acceptable with a small number of 'natural' complex predicates. This expectation is borne out in German, which permits matrix passivization of *fallen lassen* 'let fall, drop'. On the other hand, matrix passives of causatives are absolutely ruled out in both Dutch (Jack Hoeksema, pers. comm.) and French (Gerald Prince, pers. comm.). Clearly, however, more languages need to be investigated before the mutation view can be rejected with any confidence.

3. Japanese

3.1. The biclausal structure of the Japanese causative

The Japanese causative has been extensively discussed as an example of a mismatch between morphology and syntax. Here we shall not go over the arguments that have been made for and against syntactic and lexical analyses of this construction, but shall assume that, despite superficial indications to the contrary, the Japanese causative construction is biclausal. For discussions of the evidence concerning this analysis, we refer the reader to Kuroda 1965, Kuno 1973, Kuno 1978, Miyagawa 1980, Miyagawa 1984, Marantz 1984, Baker 1985, Dubinsky 1985 and Heycock 1987. In Japanese, either the matrix or the complement clause of a causative may be passivized. Thus, in contrast to both French and Italian,[27] embedded passives as in (48) are grammatical:

(48)

```
Mary-wa   Taroo-o    Ziroo-ni   home   -rare-sase-ta.
   TOP        ACC         by  praise-PASS-CS   -PST
"Mary made Taroo be praised by Ziroo."
```

The matrix clause may also be passivized, in which case the causee is promoted to matrix subject. This is true whether the complement verb is transitive or intransitive:

(49)

```
a. Taroo-wa   Mitiko-ni   moti      -o    tabe-sase-rare-ta.
      TOP           by   rice-cake-ACC eat -CS   -PASS-PST
   "Taroo was made to eat rice cake by Mitiko."

b. Taroo-wa   Mitiko-ni   uti -e   kaer   -ase-rare-ta.
      TOP           by   home-to return-CS -PASS-PST
   "Taroo was made to return to his home by Mitiko."
```

However, the complement object cannot be promoted to matrix subject in a passive. Thus (50) is ungrammatical:

(50)

```
*kodomo-wa   oya      -ni   sono sensei -ni osie -sase-rare-ta.
 child -TOP parents-by   that teacher-by teach-CS   -PASS-PST
 "The child was made by the parents to be taught by the teacher."
```

The contrast with both Italian and French is striking. In French there can be no matrix passivization, so that neither the causee nor the complement object may be promoted to subject, while in Italian either the causee or the complement object may be promoted by a matrix passive.

In Heycock 1987 the reason for the impossibility of promoting the complement object to matrix subject depended on two assumptions. The first was that the structure of the Japanese causative is biclausal. The second was that case is assigned to the complement object by the trace of the complement verb. This case assignment is then unaffected by the affixation of passive morphology in the matrix clause. Other analyses have also attributed the ungrammaticality of sentences like (50) to the biclausality of the Japanese causative construction. In Kuno 1973, Kuno 1978, where the causative is analysed as having an initially biclausal structure that collapses into a single clause as a result of predicate-raising, Kuno invokes the principle that "an object of a main clause that starts out as an embedded constituent cannot be passivized." Miyagawa 1984, adopting the parallel structures approach of Zubizarreta 1982, appeals to the Binding Theory to rule out the promotion of the complement object to matrix subject. Assuming that the binding principles apply to the 'unreduced', biclausal structure, the trace of the object that is left by movement of the NP will have no antecedent within its governing category the complement clause, in violation of Binding Principle A.

---

[27]We are assuming the correctness of analyses such as Burzio 1981, Burzio 1986, Rosen 1983 and Zubizarreta 1985, where the Romance causative construction illustrated for Italian in (4) is not taken to be an instance of an embedded passive.

3.2. Kuno's double subcategorization hypothesis

Turning now to the promotion of the causee to matrix subject, we must first note a slight complication to the description given above. As is well known, the Japanese causative has two distinct and prominent readings, which we shall paraphrase as 'let' and 'make', following Kuno 1978. When the complement verb is intransitive, the two readings are associated with distinct case-marking on the causee:

(51)
```
    a. Mitiko-ga   Taroo-ni  ik-ase-ta.
          NOM         DAT go-CS -PST
       "Mitiko let Taroo go."

    b. Mitiko-ga   Taroo-o   ik-ase-ta.
          NOM         ACC go-CS -PST
       "Mitiko made Taroo go."
```

When the complement verb is transitive there is no variation in the case-marking--the causee is marked as dative, and the complement object as accusative--and this one available case-array is associated with both the 'let' and 'make' readings:

(52)
```
    a. Mitiko-ga   Taroo-ni  moti      -o   tabe-sase-ta.
          NOM         DAT rice-cake-ACC eat -CS   -PST
       "Mitiko let/made Taroo eat rice cake."

    b.*Mitiko-ga   Taroo-o   moti      -o   tabe-sase-ta.
          NOM         ACC rice-cake-ACC eat -CS   -PST
       Intended reading: "Mitiko made Taroo eat rice cake."
```

Interestingly, causatives where the causee has been promoted through passivization are unambiguous and have only the 'make' reading: compare (49a) and (49b) with (52a).

One proposal to account for these two facts--the ambiguity of causatives with transitive complements and the non-ambiguity of the passive--is that there are two homophonous causative morphemes with different subcategorization frames. This is the analysis put forward in Kuno 1973 and defended in Kuno 1978.[28] Kuno proposes that in the case of the 'make' causative, there is an 'extra NP' in the matrix clause, which triggers Equi-NP deletion (in current terms, the 'make' causative is an object control verb). This 'extra' NP may be promoted by passivization. In the case of the 'let' causative, on the other hand, the causative morpheme subcategorizes for a clausal complement, and the only NP corresponding to the causee is in the subject position of the complement clause. Although in Kuno's analysis predicate-raising eventually triggers the collapse of the two clauses into one, so that the derived structure of a causative with an transitive complement is identical to that of a simple sentence with a ditransitive verb, promoting the causee to matrix subject in the case of the 'let' causative is ruled out by the principle mentioned above that prohibits the promotion of constituents that originate in embedded positions.

As noted in Aissen 1979, the explanatory value of Kuno's analysis depends on the existence of independent motivation for the principle restricting passivization, and on motivation for postulating distinct subcategorization frames for the two causative morphemes. Kuno's analysis presents problems in both respects. First, there are *prima facie* counterexamples to the principle restricting passivization. These involve the passive of the Exceptional Case-Marking construction exemplified in (53):

---

[28]Tonoike 1978 also proposes that the two causatives are associated with different syntactic structures, but gives an analysis that is the inverse of that in Kuno 1973.

(53)
```
        yamada-wa    tanaka-o    baka da to    omo   -tta.
           TOP            ACC fool be  that think-PST
        "Yamada thought Tanaka to be a fool."
```

Given Kuno's principle, one might expect that there would be no passive sentence corresponding to (53). However, as noted in Kuno 1976, (54) is fully grammatical:

(54)
```
        tanaka-wa    yamada-ni baka da to    omow -are -ta.
           TOP          by fool be that think-PASS-PST
        "Tanaka was thought by Yamada to be a fool."
```

Kuno claims that (54) his principle rules out only the 'pure' passive, and that (54) is instead an instance of the 'adversative passive', a construction in which the verb bears passive morphology of the usual kind, but in which the subject does not necessarily correspond to any of the verb's arguments.[29] The example in (55) is an uncontroversial example of an adversative passive, where passive morphology appears on the intransitive verb *furu* (to fall):

(55)
```
        mitiko-wa    ame -ni  fur -are -ta.
           TOP rain-by fall-PASS-PST
        "Mitiko got rained on."
```

Kuno gives two justifications for an adversative passive analysis of sentences such as (54). Firstly, sentences such as (54) have the connotation of adversity: that is to say, a better gloss for (54) would be "To Tanaka's chagrin, Yamada thought that he (= Tanaka) was a fool". Secondly, subject raising sentences only have passive counterparts if the complement subject is human or a higher animal, a restriction which, Kuno notes, holds only for adversity passives:

(56)
```
        yamada-wa    sono hon -o    totemo omosiroi    to    omo   -tta.
           TOP that book-ACC very    interesting that think-PST
        "Yamada thought that book to be very interesting."
```

(57)
```
        *sono hon -wa    yamada-ni totemo omosiroi    to    omow -are -ta.
        that book-TOP Yamada-by very    interesting that think-PASS-PST
        Intended reading: "That book was thought by Yamada to be
                                                      very interesting."
```

Neither of these arguments is conclusive, however. As has been pointed out (Howard and Niyekawa-Howard 1976, Kuno 1978), some sentences which other criteria suggest are instances of the 'pure' passive also have the implication of adversity:

(58)
```
        Mitiko-wa    Katoo-san-ni kuni    -ni kaes    -are -ta.
           TOP          Mr  by country-to return-PASS-PST
        "Mitiko was send back home (against her wishes) by Mr Katoo."
```

Moreover, Kuno himself points out that even in the case of the 'pure' passive "it is difficult to passivize a sentence with an underlying human subject and an underlying inanimate object. Japanese ... strongly resists passivization of sentences of this kind, especially when the underlying subject is an anaphoric human NP" (1978:229). He gives the following example:

---

[29]Dubinsky 1985 proposes that the subject of an adversative passive *must not* correspond to an otherwise non-occurring obligatory argument of the verb. This proposal is briefly discussed below.

```
(59)
    ???sono ringo-wa  taroo-ni tubus-are -ta.
       that apple-TOP Taroo-by crush-PASS-PST
    "The apple was crushed by Taroo."
```

A potentially relevant difference between the 'pure' and the adversative passive that would allow us to determine the status of (54) is that the former, but not the latter, allows underlying inanimate objects to be promoted over underlying inanimate subjects. This can be seen in the contrast between the 'pure' passive in (60) and the adversative passive in (61):

```
(60)
            ringo -wa   ringo-tubusi-ki ni-yotte zyooge  kara
            apples-TOP apple-crusher    by       up-down from
                                                  tubus-are -masu.
                                                  crush-PASS-POLITE
            "The apples are crushed from above and below by an apple
                                                          crusher."

(61)
            *yama    -wa   ame-ni fur -are -ta.
             mountain-TOP rain-by fall-PASS-PST
             Intended reading: "The mountain got rained on."
```

Unfortunately, however, this cannot be used as a diagnostic in the sentences that we are interested in, since the only verbs that allow subject raising are (roughly) verbs of thinking or believing, which do not occur with inanimate subjects.

It is true that the agent in sentences such as (54) can be marked only by *ni* and never by *ni yotte*, the latter of which typically occurs in 'pure' passives, but it is known that *ni yotte* cannot always occur even in pure passives (Kuroda 1979, Dubinsky 1985). We have been unable to find conclusive evidence that sentences such as (54) are instances of the 'pure' passive. However, in the absence of convincing evidence to the contrary, we conclude from the facts discussed above that Kuno's claim that the subject raising construction in (54) is not an instance of the 'pure' passive is unsubstantiated, and that there is no independent motivation for the proposed principle prohibiting passivization of an NP that originates as an embedded constituent.

3.3. The uniform subcategorization hypothesis

As already observed in Kuno 1976 for a slightly different case, it is not easy to argue conclusively for or against object control analyses of verbs that take sentential complements in Japanese. Thus we can find no evidence to disprove the hypothesis that the 'make' and 'let' causative morphemes have distinct subcategorization frames. However, once the principle restricting passivization is abandoned for lack of independent motivation, there is little to be gained from hypothesizing distinct subcategorization frames for the two causative morphemes. We will therefore assume that the two morphemes -*sase* uniformly subcategorize for a complement S. Case must therefore be assigned to the complement subject--the causee--across the S boundary, in a manner akin to the Exceptional Case Marking of English. As noted above, the 'let' causative assigns dative case to the causee irrespective of the transitivity of the complement verb. We suggest that this dative is a lexical case, idiosyncratically assigned by the

'let' causative morpheme,[30] and that this information must be represented explicitly in the lexicon.[31] In this respect the 'let' causative is parallel to verbs such as *au* (to meet), *katu* (to defeat), and others, which mark their single argument with the dative case.[32] In contrast to the 'let' causative, the 'make' causative assigns dative case to the causee only when the complement verb is assigning accusative case to some other NP. We hypothesize that here the dative is not lexically, but structurally assigned and that the lexical entry for the 'make' causative contains no information about case-marking. Assuming the analysis of Heycock 1987, where the complement verb and the causative morpheme form a complex verb with a common V-node ancestor, we propose that when the complement verb is intransitive or assigns lexical case, i.e. when it does not assign structural case through its trace, the 'make' causative morpheme assigns accusative case to the causee like any standard transitive verb. When the complement verb does assign accusative case through its trace, accusative case cannot be assigned a second time, as the complex verb is subject to the same constraint that prevents morphologically simple verbs in Japanese from assigning more than one accusative (the so-called double -*o* constraint). The causative therefore assigns structural dative--the case that is assigned to the second object of ditransitive verbs in Japanese.[33]

Since the realization of structural case is determined in the syntax, rather than in the lexicon, we must explain why it is the case of the causee that varies with the transitivity of the complement verb, rather than the case of the complement object:

```
(62)
        a.  yumi-wa   hon   -o  /*-ni   yon -da.
                TOP  books-ACC/*-DAT  read-PST
            "Yumi read books."

        b.  taroo-wa   yumi-ni   hon   -o   yom -ase-ta.
                TOP          DAT  books-ACC  read-CS -PST
            "Taroo made Yumi read books."

        c. *taroo-wa   yumi-o   hon   -ni   yom -ase-ta.
                TOP        ACC  books-DAT   read-CS -PST
            Intended reading: as (b).
```

In Japanese one might appeal to the linear order of the arguments that are assigned case, since the unmarked sequence of cases is Dative followed by Accusative. However, this explanation will not carry over to French, as we discuss in Section 4. We suggest instead that the case that is assigned to the complement object must be consistent with the case-assigning properties of the complement verb and the configuration of the complement clause. Thus the initial trees for (62b) and (62c) would be as follows (irrelevant details omitted):

---

[30]The objection could be raised that it is unexpected for an Exceptional Case Marking verb to assign lexical case. We note that it would be possible for us to adopt the position of Tonoike 1978 and assume that the 'let' causative morpheme is a control verb without significant effects on the rest of our analysis.

[31]The distinction between lexical and structural case is made in Aissen 1979, though not in these terms.

[32]For a distinction within the class of verbs that assign dative case to their single argument, see Dubinsky 1985.

[33]Considering Japanese in isolation, we might conclude that it is by virtue of being dominated by a single V node that the causative complex is subject to the constraint on case assignment. The reader is referred to Section 4 for a discussion of the inadequacy of this analysis from a cross-linguistic perspective.

```
Initial tree for (62b)          Initial tree for (62c)

                 S                               S
               /   \                           /   \
              /     \                         /     \
             S       V_i                     S       V_i
           /   \      |                     /   \      |
          /     \    yom-                  /     \    yom-
         NP      VP                       NP      VP
          |     /  \                       |     /  \
       yumi-ni /    \                    yumi-o /    \
              NP     V_i                       NP     V_i
               |      |                         |      |
             hon-o    e                       hon-ni   e
```
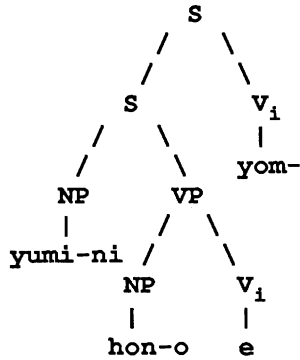
The tree for (62c) can be rejected before the derivation goes any further on the basis of information which is available in the tree about the licenser for the case on the complement object *hon* (books): the verb *yomu* (to read) is not marked as assigning lexical dative case, and the structural relationship between its trace and the complement object--the only NP that the trace governs--is exactly the same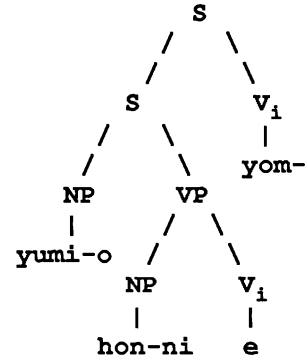 as would be found in the tree for a simple sentence such as (62a) above. Since the structural case that is assigned to the causee may be realized either as accusative or dative, we must assume that the assignment of structural dative case depends on the number of arguments being assigned structural case by the verb, not on a unique configurational relationship between the verb and the NP. That is to say, the assignment of structural dative case is dependent on the assignment of structural accusative (Goodall 1984).[34] The case-marking pattern found in 'make' causatives with complement verbs that assign lexical case shows that the case of the causee cannot be determined simply on the basis of the number of arguments assigned case by the causative complex. This is shown in (63). In (63a) the complement verb assigns structural case: hence the case assigned to the causee must be dative. In (63b) the complement verb is *au* (to meet), which assigns lexical dative, and the causee is marked accusative.

(63)
```
    a. mitiko-wa   taroo-ni /*-o    hon   -o    yom -ase-ta.
          TOP          DAT/*-ACC  books-ACC read-CS -PST
       "Mitiko made Taroo read books."

    b. mitiko-wa   taroo-o    junko-ni   aw  -ase-ta.
          TOP         ACC         DAT meet-CS -PST
       "Mitiko made Taroo meet Junko."
```

Note, incidentally, that the 'let' counterpart to (63b) is grammatical.

(64)
```
       mitiko-wa   taroo-ni   junko-ni   aw  -ase-ta.
          TOP         DAT        DAT meet-CS -PST
       "Mitiko let Taroo meet Junko."
```

This is not surprising under our analysis, since the 'let' morpheme and the complement verb *au* (to meet) each assign lexical dative case. In contrast to the the 'make' causative, here the complex verb does not assign case as a unit. The grammaticality of (64) is therefore perfectly compatible with the fact that no morphologically simple Japanese verb assigns dative case twice.

---

[34]This assumption implies that any dative assigned by a verb to its single argument is lexical.

3.4. The interaction of the passive with the causative

We can now explain the non-ambiguity of the causative under passivization by restricting the passive in Japanese--which we are assuming to be a lexical rule--to verbs whose subcategorization frames contain no mention of the case they assign to their arguments: that is, to verbs that assign structural rather than lexical case. The failure of the 'let' causative to passivize, then, is parallel to the behavior of the dative-assigning verbs *au* (to meet), *katu* (to defeat), etc., which also lack corresponding passives, as exemplified in (62) above. Conversely, the freedom with which the causee is promoted to matrix subject in the passive of 'make' causatives is parallel to the behavior of arguments of verbs that assign structural case:[35]

(65)
```
       sono dorei-wa   taroo-ni hanako-ni   atae-rare-ta.
       that slave-TOP        by        DAT give-PASS-PST
       "That slave was given to Hanako by Taroo."
```

(66)
```
       Tanaka-daizin-wa   Yosida-syusyoo        -ni kunsyoo-o
            mister-TOP           prime-minister-by medal   -ACC
                                                        atae-rare-ta.
                                                        give-PASS-PST
       "Minister Tanaka was given a medal by Prime Minister Yoshida."
```

It must be observed that the assumption that the second object of ditransitive verbs can be promoted to subject in a 'pure' passive, while common in the literature, is not uncontroversial. Saito 1982 and Dubinsky 1985 propose that only direct objects can ever be passivized in 'pure' passives, and that sentences such as (66) are instances of the adversative passive. The evidence for this proposal is weak, however. The agent phrase in such sentences can regularly be marked with *ni yotte*, which typically marks agents in the 'pure' passive, and there is no adversative connotation. The evidence provided by the coreference of the reflexive *zibun* requires further study. On the one hand, Dubinsky 1985 claims that the *ni*-marked phrase in a sentence such as (66) can act as an antecedent for the reflexive, suggesting that this is indeed an adversative passive. On the other hand, Saito 1982 concedes that the antecedent of *zibun* in (67) (his (42b), page 80) is unambiguously the matrix subject, despite the *a priori* equally plausible reading where the reflexive is coreferential with the *ni*-marked phrase:

(67)
```
       John-ga   Mary-ni zibun-no    ronbun-o    mise-rare-ta.
       NOM           by self -POSS paper -ACC show-PASS-PST
       "John was shown his (*Mary's) paper by Mary."
```
We conclude that evidence collected to date has failed to disprove the hypothesis that the second object of ditransitive verbs can be promoted to subject in a 'pure' passive.[36]

In order to give a TAG representation of the passive causative in Japanese, we adopt the analysis of the passive of Exceptional Case Marking verbs proposed in Kroch and Joshi 1985, where it is argued that a lexical

---

[35]The examples in (65) and (66) are from Ostler 1980.

[36]The passivizability of structural datives in Japanese may turn out not to be relevant to our proposal. Since we assume that the passive is lexical, it operates on the subcategorization frame of the causative morpheme. At this point there is reference to only one NP, in contrast to the frame for a simple ditransitive. (We are here assuming that the subcategorization frame of Exceptional Case Marking verbs is unusual in making reference to an NP--the complement subject--that is not subcategorized for by the verb. We refer the reader to Kroch and Joshi 1985 for a discussion of this point.) Thus, the input to the passive rule in the case of the 'make' causative is actually closer to the subcategorization frame of a transitive verb than to that of a ditransitive.

passive rule applying to the subcategorization frame of such verbs derives a frame identical to that of raising verbs. In the TAG analysis of raising verbs that is proposed in that paper and that we maintain here, raising verbs assign no theta-role to their subjects and take VP complements. Thus the derivation we propose for a passive causative such as (68) uses the elementary trees in (69):[37]

(68)
```
        taroo-wa  uti -e  kaer  -ase-rare-ta.
             TOP home-to return-CS -PASS-PST
        "Taroo was made to return to his home."
```
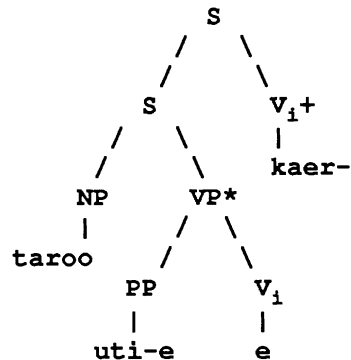
(69)
```
        Initial tree I:
                             S
                           /   \
                          /     \
                         S       V_i+
                       /   \      |
                      /     \    kaer-
                    NP      VP*
                     |     /   \
                   taroo  /     \
                         PP      V_i
                          |       |
                        uti-e     e


        Auxiliary tree set:

        A1:       VP              A2:        V
                 /  \                       / \
                /    \                     /   \
              VP      V_j                 V     V_j
                       |                         |
                       |                         |
                       e                   -ase-rare-ta
```
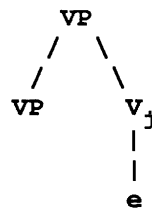
The derived structure of (68) is obtained by adjoining A1 and A2, the members of the auxiliary tree set, at the VP node and the extraposed V node of the initial tree. We have marked the adjunction nodes in the initial tree by * and +, respectively. The resulting tree is shown in (70).

---

[37]We abstract away from the question of how to represent case-marking, an issue that is discussed in Heycock 1987.

(70)

```
Derived Structure:
                          S
                        /   \
                       /      \
                      /         \
                     S           V
                   /  \          | \
                  /    \        Vi  Vj
                NP      VP       |   |
               /       /  \     kaer ase-rare-ta
            taroo     VP   Vj
                     /  \   |
                    PP   Vi  e
                    |    |
                  uti-e  e
```
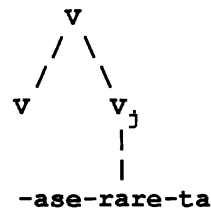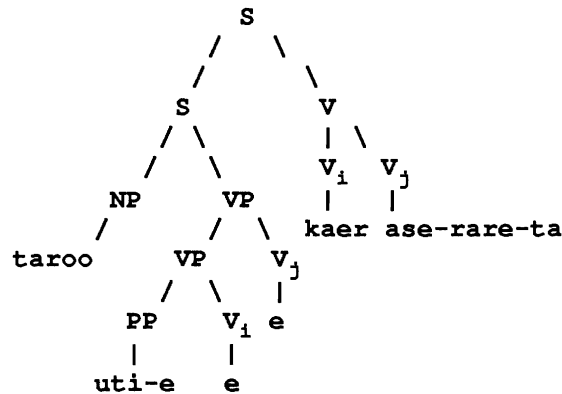
We would also propose a raising structure similar to that in (70) for the non-agentive readings of a number of aspectual verbal morphemes such as -tuzukeru (to continue) and -owaru (to finish).[38] Discussion of these constructions we must, however, leave to another occasion.

4. French

In this section we discuss the French *faire+infinitive* construction. First, we critically review some of the evidence that has been presented in support of a biclausal syntactic structure, concluding that the French causative is indeed biclausal. The failure of the complement object to assume matrix subject position in a passive follows from this fact, just as in Japanese. French differs from Japanese, however, in not permitting the causee to be promoted to matrix subject. For a discussion of this phenomenon, we refer the reader to Kroch, Santorini and Heycock 1988. We then review various proposals in the literature concerning the derived structure of the causative construction in French, concluding that the evidence for syntactic movement of the complement verb or one of its projections is weak. Finally, we discuss the ungrammaticality of embedded passives. In contrast to the general plan of this paper, in which each section is devoted to a different language, the subsection on embedded passives treats French together with Italian and Spanish, since the relevant facts in these languages are essentially identical.

4.1. The biclausal structure of the French causative

Just as in Japanese or Italian, the case array in the *faire+inf* construction is parallel to that found in simplex sentences. When the complement verb is intransitive, the causee is in the accusative case, as can be seen when it occurs as a clitic on the verb. When the complement verb is transitive, the causee is in the dative case:[39]

(71)
```
    a. Georges a    fait rire  son ami.
              has  made laugh his friend
       "Georges made his friend laugh."
```

---

[38]For discussion of the agentive/non-agentive readings of these verbs and syntactic diagnostics, the reader is referred to Shibatani 1973 and Kuno 19??.

[39]Interestingly, when the complement verb takes a sentential complement, whether tensed or untensed, the causee appears in the dative case, just as it does when the complement verb takes an NP object (Kayne 1975). This shows that the complement of the embedded verb receives case, and constitutes clear counterevidence to the Case Resistance Principle of Stowell 1981. Similar facts in Italian are described in Burzio 1986.

```
     b. Georges l'        a    fait rire.
              him-ACC has made laugh
        "Georges made him laugh."
```

(72)

```
     a. Georges a    fait nettoyer sa   chambre a   son fils.
              has made clean      his room    to his son
        "Georges made his son clean his room."

     b. Georges lui    a    fait nettoyer sa   chambre.
              him-DAT has made clean      his room
        "Georges made him clean his room."
```

However, a number of different arguments have been deployed to show that the *faire+inf* construction has a biclausal structure and that the causee behaves like a subject rather than an object or indirect object.

One such argument is based on the ability of causees to control PRO in constructions where this ability is generally confined to subjects. This is the case, for instance, with adjunct clauses that are introduced by *en* 'while' or *sans* 'without', where the controller can be a subject, but not an object (Ruwet 1972):[40]

(73)

```
     a. Ils  ont  tue    les etudiants en     hurlant.
        they have killed the students   while screaming
        "They_i killed the students_j while they_i were screaming."

     b. Elle a    quitte sans     rien    dire son meilleur ami.
        she has left    without nothing say her best      friend
        "She_i left her best friend_j without (her_i) saying
                                                          anything."
```

(74)

```
     a. La   police a  fait  se    disperser en     hurlant
        the  police has made REFL disperse    while screaming
                                              les etudiants.
                                              the students
        "The police made the students_i disperse while they_i were
                                                          screaming.

     b. Ce   qui   est arrive   a    fait partir sans    rien    dire
        that which has happened has made leave   without nothing say
               la   tante de Jean.
               the aunt of
        "What happened made Jean's aunt leave without saying anything."
```

The contrast between (73) and (74) has been taken as evidence that the causees in the sentences in (74) are structural subjects. However, Postal 1986 notes that the *par* phrase in a passive can also control PRO:

(75)

```
        Beaucoup de murs  ont  ete  detruits  par ces    fous
        many       of walls have been destroyed by  these crazies
                                                     en     hurlant.
        "Many walls were destroyed by these crazies_i while they_i
                                                     were screaming."
```

Given current theoretical assumptions, under which the *par*-phrase in a passive does not originate in subject

---

[40]The following examples are quoted from Kayne 1975.

position, examples such as (75) show that control of PRO may be determined thematically. Thus the fact that the causees control PRO in (74) cannot be taken as conclusive evidence that they are structural subjects.[41]

Analogous reasoning applies to adverbial phrases such as *d'une seule main* 'with one hand'. Following Ruwet, Kayne notes, that the implicit agent argument in such a phrase cannot be controlled by an object NP. Thus in (76), the implicit agent cannot be controlled by *Paul*:

(76)
```
Elle a    pousse Paul d' une seule   main dans l'  eau.
she  has pushed       of a   single hand into the water
"She pushed Paul into the water with one hand."
```

The implicit agent may, however, be controlled by a causee:

(77)
```
La  peur a    fait se   hisser Paul d' une seule   main
the fear has made REFL lift         of a   single hand
                                             sur le  cheval.
                                             onto the horse
"Fear made Paul lift himself with one hand onto the horse."
```

But again, the interpretation of (77) is not conclusive evidence that the causee is a structural subject, since the following examples--also from Kayne--indicate that control of the implicit argument can be determined thematically rather than structurally:

(78)
```
a. Ca   se   fait d' une seule   main.
   that REFL does of a   single hand
   "That is done with one hand."

b. Ca   a   ete  fait d' une seule   main.
   that has been done of a   single hand
   "That was done with one hand."
```

It is true that since Kayne derives both of the sentence types in (78) from underlying structures where the agent is in subject position, he is at least able to maintain an account of this phenomenon under which the controller originates as a structural subject. Such an account, however, is not available under current theoretical assumptions.

Finally, Kayne himself notes that the evidence from subject control verbs embedded under *faire* is inconclusive. It appears that whether the causee can act as a controller varies from case to case:

(79)
```
a.i.  Jean admet  s'   etre trompe.
           admits REFL be   mistaken
      "Jean admits having erred."
```

---

[41]In fact there seem to be both thematic and syntactic determinants of the control of PRO, since derived structural subjects can also act as controllers, as the following examples from Ruwet 1972 show:

```
(i)   J' ai  ete  convaincu en    lisant Chomsky.
      I  have been convinced while reading
      "I was convinced while reading Chomsky."

(ii)  Pierre a   ete  arrete    sans   savoir pourquoi.
             has been arrested without know   why
      "Pierre was arrested without knowing why."
```

Clearly this area requires more research.

```
        ii.*J'ai    fait admettre a  Jean s'   etre trompe.
            I have made admit    to    REFL be   mistaken
            Intended reading "I made Jean admit having erred."
    b.i.   Jean regrette de s'   etre trompe.
                regrets  of REFL be   mistaken
           "Jean regrets having erred."

      ii. Ce   qui est arrive   a   fait regretter a  Jean
          that REL is  happened has made regret     to
                                          de s'   etre trompe.
                                          of REFL be   mistaken
           "What happened made Jean regret having erred."
```

The conclusion we draw is that the facts involving the control of PRO cannot be relied upon as evidence for a biclausal analysis of the French causative construction.

We have discussed the above arguments in some detail because they are often cited in accounts of the causative construction in Romance, and we feel that it is important to set out clearly the limitations on their relevance in determining the syntactic structure of the causative. Nevertheless, we consider that there is good evidence for a biclausal analysis of the *faire+inf* construction. Most important is the impossibility of coreference between the matrix subject and a reciprocal in complement object position, as illustrated in Kayne 1975:285:

(80)
```
    a. *Nous ferons       ecrire notre ami    l'  un a  l'  autre.
       we    will make    write  our   friend the one to the other
       Intended reading: "We$_i$ will have our friend write
                                            to each other$_i$."

    b. *Elles auraient   fait tirer le  pauvre soldat
       they  would have  made shoot the poor   soldier
                                      l'  une sur l'  autre.
                                      the one on  the other
       Intended reading: "They$_i$ would have made the poor soldier
                                      shoot each other$_i$."
```

In this the French construction patterns with the English, not the Italian causative. We consider that this evidence is sufficient to motivate a biclausal analysis of the *faire+inf* construction.

4.2. Matrix passivization

In French matrix passivization is always ungrammatical, whether it is the causee or the complement object that assumes matrix subject position:

(81)
```
    a. *L'  enfant a    ete  fait dormir.
       the child  has been made sleep
       Intended reading: "The child was made to sleep."

    b. *Le  livre a    ete  fait voir (a /par Jean).
       the book  has been made see   to/by
       Intended reading:  "The book was shown to Jean."
```

In this respect French patterns with English, rather than with Italian or Japanese. In Italian, the equivalents of both (72a) and (72b) are grammatical, as discussed in Section 5; in Japanese the promotion of the complement object is ungrammatical, as in (72b), but promotion of the causee is permitted.

In Burzio 1981 and Burzio 1986 it is assumed that French and Italian causatives have the same structure. Consequently, Burzio has no account of their different behavior under passivization. We follow Zubizarreta 1985 in thinking that the contrast between (72b) and its grammatical Italian counterpart is significant, and that the basis for this contrast is the monoclausality of the Italian, but not the French construction. As discussed in more detail in Section 4.4 below, Zubizarreta 1985 argues that French causative sentences are associated in parallel with two S-structure representations: one biclausal, the other monoclausal. Zubizarreta proposes that the binding principles apply to the biclausal structure. If the complement object were to move to matrix subject position, its trace would not be bound in its minimal governing category, the embedded S, violating principle (A) of the binding theory. While we agree that it is indeed the biclausal nature of the French causative that prevents promotion of the complement object, we consider that Zubizarreta's parallel structures analysis is conceptually weak since the Binding Principles apply to the biclausal structure by stipulation, rather than for any principled reason. Predication and Case-marking, on the other hand, apply to the monoclausal structure. Under a parallel structures analysis, the reverse situation would be just as natural. We propose instead that the reason that the complement object cannot be promoted to matrix subject is the same in French as in Japanese. Passive applies in the lexicon to verbs whose subcategorization frame contains an argument unspecified for case, i.e. an NP that will receive structural case. *Faire*, like Japanese *-sase-* and the Exceptional Case Marking verbs of English, has a subcategorization frame which is marked in that it makes reference to the complement subject. In French, as in Japanese, the causative complex is formed in the syntax, not the lexicon. Consequently, the application of the passive rule to *faire* can have no effect on the complement object, which is not represented in its subcategorization frame.

Since we claim that the same account of matrix passivization explains the failure of the complement object to assume matrix subject position in both French and Japanese, the question arises why French differs from Japanese in further forbidding the promotion of the causee. As has been noted by many authors, it is not only in the *faire+infinitive* construction that the subject of an infinitival complement clause cannot be promoted in a matrix passive. It is impossible for the complement subject in the French complement-causative (the causative with *laisser* in which *laisser* and the complement verb remain fully independent), and it is also impossible for the subject of an infinitival clause following a verb of perception.

(82)
```
    a.*Jean sera     laisse lire ces    livres.
           will be let      read those books
       Intended reading: "Jean will be allowed to read those books.

    b.*Jean a    ete  vu    monter l'   escalier.
           has been seen climb  the stair
       Intended reading:  "Jean was seen climbing the stairs."
```

The parallel between French and English is striking, and we expect that the same explanation will apply to these data in both languages. In this paper we do not offer a solution, but the reader is referred to Kroch, Santorini and Heycock 1988 for an account of the ungrammaticality of the passives of verbs that take bare infinitival complements in English and Romance.

4.3. Derived structure

In the previous subsection, we pointed out the parallels between the Japanese and the French causative construction. There is a clear difference between the French and the Japanese causative, however: in French the order of the elements of the complement clause differs from the normal order found in a simple sentence:

(83)
```
        a.  Il boit    du lait.
            he drinks of milk
            "He drinks milk."

        b.  Elle a    fait boire du lait a  son enfant.
            she  has made drink of milk to her child
            "She made her child drink milk."

        c. *Elle a    fait son enfant boire du lait.
            she  has made her child  drink of milk
            Intended reading as (b).

        d. *Elle a    fait boire a  son enfant du lait.
            she  has made drink to her child  of milk
            Intended reading as (b).
```

One way to account for the word order in (74b) is to hypothesize that the VP *boire du lait* 'drink milk' has been preposed. VP preposing is the term given to this operation in Rouveret and Vergnaud 1980, although in fact in their analysis it is not the VP that is preposed, but a lesser projection, V', which contains the verb and its direct object. A similar position is taken in Quicoli 1980, who claims more specifically that the projection that is preposed contains the verb along with its direct and indirect objects. Under his analysis, the dative complements of verbs such as *telephoner* and *parler* are not contained in this projection. Instead, he assumes that these verbs are intransitive, and that their prepositional complements, like those of verbs of motion such as *aller*, are contained in a yet superior projection of the verb.

There are two reasons for claiming that a non-maximal projection of V is preposed. The principal reason is the position of the causee with respect to the other arguments of the complement verb: it appears after accusative objects, but before other arguments.

(84)
```
        a.  On  a    fait quitter le  bureau a  Marie.
            one has made leave    the office to
            "Someone made Marie leave the office."

        b. *On  a    fait quitter (a) Marie le  bureau.
            one has made leave    to      the office
            Intended reading as above
```

(85)
```
        a. *On  a    fait telephoner a Jean Luc.
            one has made telephone   to
            Intended reading: "Someone made Luc telephone Jean."

        b.  On  a    fait telephoner Luc a Jean.
            one has made telephone       to
            As above.
```

(86)

    a. *On   a   fait aller a Saint-Brieuc Marie.
       one has made go   to
       Intended reading: "Someone made Marie go to Saint-Brieuc."

    b. On a   fait aller Marie a Saint-Brieuc.
       one has made go   to
       As above.

The second reason concerns a restriction on the occurrence of dative clitics. Kayne 1975 notes that dative clitics that originate in the complement clause cannot cliticize to *faire*, unlike accusative clitics:

(87)

    a. *Je lui   ferai   ecrire mon ami.
       I her-DAT will make write my friend.
       Intended reading: "I will make my friend write to her."

    b. Je la   ferai   inviter a mon ami.
       I her-ACC will make invite to my   friend
       "I will make my friend invite her."

He argues that this is evidence that the dative NP is 'left behind' and attributes the ungrammaticality of (78a) to the fact that the relationship between a dative clitic on the matrix verb *faire* and the complement object position violates the Specified Subject Condition.

Quicoli takes up Kayne's examples and argues that there is a further contrast in cliticization that supports his own distinction between indirect objects and all other prepositional phrases, since indirect objects may in fact cliticize when a direct object is also present. Thus, in (88a) *ecrire* is considered to be intransitive, and the dative clitic corresponds to a prepositional complement; in (79b) it is a ditransitive, and the dative clitic corresponds to the indirect object:

(79)

    a. *Je te lui   laisserai ecrire.
       I you her-DAT will let write
       Intended reading: "I will let you write to her."

    b. Je te le   lui   laisserai ecrire.
       I you it-ACC her-DAT will let write
       "I will let you write it to her."

The problem with Quicoli's account is that it rests on the assumption that all datives that do not co-occur with accusatives, i.e. lexically assigned datives, and all other subcategorized PP arguments, are dominated by a higher projection of V than are indirect and direct objects. Unless independent evidence for this can be found, this does not seem to us a likely hypothesis. Note that Quicoli's position entails that predicate nominals must not occur within the projection of V that contains the direct and indirect objects of the verb, since a predicate nominal may occur to the right of the causee, as shown in this example from Kayne 1975:

(89)

    Cela fera   devenir son fils un bon professeur.
    that will make become his son a   good teacher
    "That will make his son become a good teacher."

It is true that in some cases there is variation in the relative order of the predicate nominal and the causee:

(90)

    a. Marie a   fait devenir son fils comedien.
             has made become   her son   actor
      "Marie made her son become an actor."

    b. Marie a   fait devenir comedien son fils.
             has made become   actor   her son
     As above.

It might be argued that the word order in (90a) is derived from that in (90b) by a stylistic postposing rule. However, we follow Rouveret and Vergnaud 1980 in adopting the converse hypothesis, namely that it is the order in (90b) that is produced by a rule of stylistic inversion, which is licensed only when the predicate nominal is 'lighter' than the causee:

(91)

    *Marie a   fait devenir excellent comedien son fils.
           has made become   excellent actor   her son
    "Marie made her son become an excellent actor."

In his early work (Burzio 1978), Burzio accepted the type of arguments given by Quicoli, and assumed that French and Italian differed as to the projection of V that could be preposed: in French V', in Italian VP. In Burzio 1986, on the other hand, he argues that the VP is preposed in both languages. In Italian, the *prima facie* evidence for VP preposing is stronger than in French. As in French, there is a difference in acceptability between preposing VP, as in (92a), and preposing V', as in (92b). In contrast to French, however, the order that results from VP movement is acceptable, though awkward:

(92)

    a. ?Faro   telefonare/scrivere a Maria Giovanni.
       I will make telephone/ write   to
      "I will make Giovanni telephone/write (to) Maria."

    b. Faro   telefonare/scrivere Giovanni a Maria.
       I will make telephone /write   to
     As above.

Furthermore, cliticization of a dative object as in (78a) results in sentences whose "ungrammaticality ... is not very severe" (Burzio 1986). These and other facts lead Burzio to the conclusion that in Italian the entire VP is preposed. He then uses the data from Italian, in addition to other criticisms of Kayne's and Quicoli's analyses, to argue that in French as well it must be the VP that is preposed. For us, of course, this argument will not go through, as we contend at the French and Italian causative constructions are fundamentally different.

In Burzio's analysis of French and Italian the entire VP moves out of the complement clause to become a sister to the matrix V--the causative verb.[42] In order to account for the constraints on the order of the arguments of the complement verb--constraints that seem categorical in French but less so in Italian--he hypothesizes the existence of late reordering rules that operate when the order resulting from VP preposing violates the general rule that accusatives precede datives. Under this account the difference between French and Italian with respect to the acceptability of causatives where a dative NP precedes an accusative--the contrast between (76a) and (92b) above-- is a reflection of the looser constraints on word order in simple sentences in Italian. This position is close to that taken in Aissen 1979, who observes that a similar contrast between causatives in French and Spanish exactly mirrors the constraints operating in simple sentences:

---

[42]As Zubizarreta 1982 notes, Burzio's analysis violates the Projection Principle.

(93)

a. *J'ai   fait lire a   Jean le   livre.
   I have made read to   the book
   Intended reading: "I made Jean read the book."

b. Le$_i$ hice cocinar a   Maria$_i$ los frijoles.
   clit I had cook   to   the beans
   "I had Maria cook the beans."

(94)

a. *Jean a   donne a Marie le   livre.
        has given to   the book
   Intended reading: "Jean gave Marie the book."

b. Juan le$_i$ dio a Maria$_i$ el libro.
         gave to   the book
   "Juan gave Maria the book."

In both (93) and (94) the order given is unacceptable in French and marked but acceptable in Spanish.

We conclude that the word order in the Romance causatives cannot be made to follow from a stipulation in purely structural terms of the constituent to be preposed. As a result, word order facts provide only indirect evidence for the transformation of VP preposing. Burzio's analysis then comes to rely much more heavily on the role of VP preposing in explaining the ungrammaticality of embedded passives and raising verbs. In Section 4.4 we discuss Burzio's approach to this phenomenon and show that his analysis cannot be maintained. To the extent that the arguments presented there are correct, we contend that there remains little evidence for VP preposing in French or Italian.

Aissen 1979 rejects the VP preposing analysis for Romance, proposing instead that in French, Italian and Spanish, as in Japanese and Turkish, it is only the verb that is raised. The raising of the verb is crucial for Aissen's analysis not in order for a complex verb to be formed--since Aissen accepts at least some of Kayne's arguments against the existence of a single V node dominating *faire*,[43] but in order for the embedded S node to be pruned. This results in a derived structure essentially equivalent to that of a simplex sentence, allowing Aissen to give a unified account of case-marking in causative sentences and sentences with morphologically simple verbs.

Clearly, we cannot adopt Aissen's analysis as it stands because the essential pruning of the lower clause violates the Projection Principle. There are also two important empirical inadequacies of her approach--both of which she brings up herself. The first is a central concern of our paper: the failure of the causee--and of the complement object--to be promoted to matrix subject position under passivization. Aissen mentions a suggestion of

---

[43]Kayne's arguments against the existence of a single V node dominating the *faire*+infinitive sequence include the following: (a) the rule that attaches subject clitics to the right of V in questions attaches them to the right of *faire*, (b) the same is true of the placement of object clitics in imperatives and of the negative element *pas*, and (c) adverbials and other like-behaving elements may intervene between *faire* and the infinitive:

Je fais toujours partir Jean.
"I always make Jean leave."

Je ferai certainement partir Jean.
 "I will certainly make Jean leave."

Ils ne font surement pas tous boire du vin a leurs enfants.
"They surely don't all have their children drink wine."

The reader is referred to Kayne 1975:217-220.

Kayne's that this can be attributed to the fact that the *faire*+infinitive sequence is not a complex verb. She rejects this as a possible explanation because under her analysis *faire* is an auxiliary, and the passive rule can apply across an auxiliary and verb in French. We too reject this as a possible explanation since the causative sequence in Italian is no more a complex verb by Kayne's criteria than it is in French, and yet it passivizes freely. Aissen is thus forced to conclude that there is a lexical restriction on the passive rule, which prevents it from applying to *faire*-- presumably only in its use in the causative construction. The second problem concerns case-marking. Aissen's formulation of the relevant case marking rules is as follows:

> *Accusative*: An NP is marked accusative if it is not yet marked for
> case, and if it is the 'first' object of a verb which has no accusative object.

> *Dative*: An NP is marked dative if it is not yet marked for case and
> if and if it is the object of a verb which does have an accusative object
> (i.e. 'second' object).

As she notes, this formulation depends on the assumption that 'first' and 'second' object can be identified. But it is not at all clear how this can be done if the derived structure of the causative is monoclausal. This point is perhaps even clearer in Romance than in Japanese, since the SVO order in the Romance languages would incorrectly lead one to expect the pattern of case-marking in (95a) rather than that in (95b):

```
(95)
    a. *Le   vieux    a    fait voler le  garcon aux    bijoux.
        The old man has made steal the boy      to the jewels
        Intended reading: "The old man made the boy steal the jewels."

    b.  Le   vieux    a    fait voler les bijoux au      garcon.
        The old man has made steal the jewels to the boy
        "The old man made the boy steal the jewels."
```

In Section 3 we showed how this problem can be resolved in an analysis where the structure of the complement clause remains intact.

Since current theoretical assumptions do not allow clause pruning, which under Aissen's analysis is triggered by verb raising, the question arises whether there remains any motivation in our treatment for verb raising at all. Since the order of the arguments of the complement clause must be determined by late rules that give rise to orders mirroring those found in simple sentences, there seems to be no *a priori* reason to suppose that it might not be the same type of rule that moves the complement verb to a position adjacent to *faire*. In Japanese the causative complex forms a morphological and phonological word, and consequently it seems plausible that the complement verb is raised in the syntax to form part of a complex verb dominated by a single V node. There is an evident temptation then to use this structure to explain the fact that the case-assignment properties of the causative complex are those of a simple verb. But the comparison with French, where the *faire*+infinitive sequence is not dominated by a single V node, shows that it cannot be the syntactic structure of the causative complex that is responsible for the case-assigning properties, since they hold in exactly the same way in French as in Japanese. Given our assumptions, syntactic verb raising can thus be motivated neither by its role as a trigger for clause pruning, nor by its necessity for the formation of a complex verb. We conclude that there is no strong empirical evidence in favor of verb raising in the Romance causative.

Our position is similar in some respects to that of Zubizarreta 1985, who also assumes no preposing of the VP or raising of the complement verb in the syntax. However, for Zubizarreta the *faire*+infinitive sequence does form a

complex verb dominated by a single V at S-structure--albeit in only one of the two structures associated with the construction. Thus Kayne's arguments against analyzing the *faire*+infinitive sequence as a complex verb apply against Zubizarreta's analysis. Although it is not fully clear in her discussion, Zubizarreta assumes that the formation in the syntax of a complex verb dominated by a single V node is necessary and sufficient to account for the case-marking facts of the causative construction. Kayne's evidence, however, makes her position untenable.

In Rouveret and Vergnaud 1980, where V' is adjoined to the embedded S, it is argued that the *faire*+infinitive sequence is reanalyzed as a complex verb because *faire* governs the infinitive. But while government may be a necessary condition for complex verb formation, it is clearly not a sufficient one. It is not at present clear to us precisely what role structural configurations play in complex verb formation. For the moment, although this is the most interesting issue to emerge from our investigation, we leave the question open.

4.4. Embedded passives

In contrast to English and Japanese, embedding a passive clause under the causative *faire* is completely unacceptable in French, as shown in (96).

(96)
```
*Jean fera        etre invite  Pierre.
       will-make be   invited
   'Jean will get Pierre to be invited.'
```

As the ungrammaticality of the Italian counterpart of (96) shows, French and Italian are alike in this respect,[44] and we will therefore discuss both languages together in this subsection. Where we give no indication to the contrary, examples from either language also serve to illustrate the facts of the other.[45].

(97)
```
*Giovanni fara        essere invitato Piero.
           will-make be     invited
    'Giovanni will get Pierre to be invited.'
```

We review two analyses of the Romance facts. The first of these, the analysis presented in Zubizarreta 1985, attempts to rule out embedded passives by appealing to a functional principle blocking redundant morphology. We argue that Zubizarreta's analysis is stipulative and empirically inadequate because it fails to distinguish correctly between embedded unaccusatives and embedded passives. The second analysis, which is due to Burzio 1986, proposes to derive the ungrammaticality of embedded passives from structural principles, in particular from principles of the binding theory. After showing that Burzio fails to rule out a possible derivation for embedded passives, we provide empirical counterevidence to both Zubizarreta's and Burzio's analyses from French. We conclude that embedded passives in Romance cannot and should not be ruled out on purely structural grounds. Though we have yet to work out a satisfactory alternative analysis of the unacceptability of embedded passives, we believe that a proper treatment of this phenomenon will depend crucially on non-structural concepts such as agentivity, and we discuss some relevant considerations.

---

[44]Of the other Romance languages, Spanish patterns with French and Italian, while Portuguese allows embedded passives; cf. fn. **53. In this subsection, we follow Zubizarreta 1985 in using the term 'Romance' as a convenient cover term for French, Italian and Spanish to the exclusion of Portuguese.

[45]We assume uncontroversially that the Romance construction illustrated in (4), repeated as (98) below, does not contain a passive complement; cf. fn. 28.

As noted above, Zubizarreta 1985 proposes that French (and Spanish) causative sentences are associated in parallel with two syntactic representations: one biclausal, the other monoclausal. In the biclausal structure, *faire* functions as a main verb that takes a clausal complement, like English *make*. In the monoclausal structure, it functions as the affixal head of a complex verb derived from *faire* and the complement verb. The Italian causative verb *fare* functions as an affix exclusively. For present purposes, however, the fact that Zubizarreta assigns the causative verb a different status in Italian than in French and Spanish is not significant, since her proposal to rule out embedded passives is based on the function of the causative verb as an affix in all three Romance languages. She argues that by virtue of being the head of a complex verb and having an external argument in its lexical structure, the affix *faire* triggers two morphosyntactic processes. Firstly, it may block the syntactic realization of the complement verb's external argument. This is the process for which passive morphology is lexically specified; when it is triggered by *faire* the result is the *faire*-VP construction illustrated in (4), repeated here as (98).

(98)
```
Il   professore ha   fatto leggere il   libro (dagli   studenti).
the  professor  has  made  read    the  book  by-the  students
'The professor had the book read (by the students).'
```

As in the case of the passive, the blocked argument remains present in the lexical structure of the (complex) verb. Secondly, the presence of *faire* may force the external argument of the complement verb to internalize. This is the process for which the English suffix *-ize* (as in *modernize*) is claimed to be lexically specified; when it is triggered by *faire* the result is the *faire*-infinitive construction.[46]

Zubizarreta notes that the *faire* that blocks the complement verb's external argument has the same effect as passive morphology, with the result that passive morphology on the complement verb in the *faire*-VP construction is redundant. She therefore proposes to attribute the ungrammaticality of embedded passives in the *faire*-VP construction, as in (99), to a Principle of Morphological Nonredundancy, according to which attachment of redundant morphology is prohibited.

(99)
```
*Pierre a    fait (etre) lu(s)      ces     passages (par Jean).
        has made  be    read-part these passages  by
 'Pierre had these passages read (by Jean).'
```

Zubizarreta 1985:278 claims that independent evidence for this principle is provided by the failure of unaccusative verbs to passivize, even in languages like Dutch and German which allow passives of intransitive verbs. But given that unaccusatives have no external argument, the affixation of passive morphology to these verbs is not redundant at all; rather, it is vacuous. Thus, the independent evidence for the Principle of Morphological Nonredundancy collapses, and Zubizarreta's appeal to it as a way of ruling out embedded passives in the *faire*-VP construction amounts to a stipulation.

But even if Zubizarreta's assumption were correct and the Principle of Morphological Nonredundancy extended to passives and unaccusatives in a parallel way, her analysis of the ungrammaticality of embedded passives would still have to be rejected on empirical grounds. In contrast to embedded passives, embedded unaccusatives are grammatical.

---

[46]According to Zubizarreta, the Italian causative *fare* may in addition act as an "anticausativizer", triggering deletion of the external argument of the complement verb. This function of *fare* is not relevant to the discussion here.

```
(100)
      Piero ha  fatto partire Maria.
            has made  leave
      'Piero made Maria leave.'
```

The question thus arises of how to account for the contrast between (99) and (100). Zubizarreta's argues that attachment of the causative verb/affix to an unaccusative verb is not totally redundant since the causative adds its external argument. But clearly, the external argument of *faire* is added in the case of embedded passives as well. It is true that affixing *faire* to unaccusatives increases by one the total number of arguments that are realized in the syntax, while affixing *faire* to passives does not affect this total since the addition of the external argument of *faire* is offset by the blocking of the complement verb's external argument. But elsewhere Zubizarreta emphasizes that blocked arguments remain present in the lexical structure of a verb: "... the crucial difference between *faire* as a passivizer and *faire* as an anticausativizer is that in the former case *faire* does not alter the argument structure of the embedded verb in any fundamental way: the number of lexical arguments remains constant" (1985:282). It is therefore in keeping with the spirit of Zubizarreta's analysis to take lexical rather than syntactic structure as the level of representation that is relevant in determining whether attachment of an affix is redundant or not. We conclude that to the extent that Zubizarreta's account correctly permits embedded unaccusatives, it incorrectly permits embedded passives as well.

As an aside, we note that German and Japanese provide counterexamples to Zubizarreta's claim that causatives such as *faire* do not need to be lexically specified for the processes of blocking or internalization, but rather trigger these indirectly "by virtue of conjunctively having an external argument in [their] lexical structure and being the head of the derived, complex verb" (1985:275). German has an exact counterpart to the *faire*-VP construction, as shown in (101), but no counterpart to the *faire*-infinitive construction. That is, when the causee appears other than in a *von*-phrase, it is in the accusative case, irrespective of the transitivity of the complement verb, as in English. This is shown in (102).

```
(101)
      Ich habe die Katze (von Julia) streicheln lassen.
      I   have the cat    by           stroke     let
      'I let Julia stroke the cat.'
```

```
(102)
      Ich habe den     /*dem      Jungen die     Katze streicheln lassen.
      I   have the-acc the-dat boy    the-acc cat   stroke     let
      'I let the boy stroke the cat.'
```

Conversely, it seems that Japanese has no equivalent of the *faire*-VP construction: the causee may be absent from a causative sentence, but only when it is recoverable from context. As is well known, virtually any argument may be deleted under these circumstances in Japanese.

Embedded passives need to be ruled out not only under the *faire* that blocks the realization of the external argument of the complement verb, but also under the *faire* that triggers its internalization, as in (103).

```
(103)
      *Pierre a    fait (etre) lu(s)       ces    passages a   Jean.
            has made  be    read-part these passages to
      'Pierre had these passages read by Jean.'
```

While Zubizarreta fails to discuss this type of embedded passive, it appears that (103) can be ruled out under her assumptions. Clearly, the passive morphology on the complement verb blocks the syntactic realization of its

external argument, just as under the *faire*-VP derivation discussed above. This blocking turns out to be incompatible with the internalization triggered by *faire* since the external argument of the complement verb is prevented from being realized in the syntax by passive morphology, yet simultaneously forced by *faire* to be realized as an internal, and hence obligatory, argument. Therefore, the derivation of (103) does not go through.

We turn now to Burzio's analysis of the unacceptability of embedded passives. Burzio 1986:280 derives causative constructions as in (96) from underlying structures like (104a) by NP-movement and VP preposing, yielding the intermediate and derived structures in (104b) and (104c), respectively.[47]

(104)
a.   Jean fera [$_S$e etre invite Pierre]
b.   Jean fera [$_S$[Pierre]$_i$ etre invite t$_i$]
c.   Jean fera [$_{VP}$etre invite t$_i$]$_j$ [$_S$[Pierre]$_i$ t$_j$]

Given the derived structure in (104c), he is thus able to rule out embedded passives as binding theory violations, since *Pierre* fails to c-command its trace t_i. It is clear that Burzio's explanation of the unacceptability of embedded passives hinges on the twin assumptions that the projection of the complement verb that is preposed contains the complement object and that it is preposed in the syntax. In contrast to Burzio, we are not committed to the view that the derivation of causatives in Romance involves preposing the entire complement VP in the syntax, or even that projection of the complement verb that dominates the direct object. Moreover, we assume that the passive is a lexical, not a syntactic process. Finally for us, the issue of which projection of V ends up adjacent to the causative is independent of whether the causative construction is derived in the syntax or in the lexicon. In either case, we assume that the superficial word order in a causative construction is determined at a late stage, i.e. after tree adjunction has taken place in the case of a syntactic derivation, according to the same criteria that determine word order in simple clauses. This is consistent with Burzio's own view that the marginally acceptable output of his VP-preposing rule in a case like (92a), repeated here in (105a), where a dative complement object precedes an accusative causee, undergoes a reordering rule to yield the completely acceptable dative-accusative order in (105b) (1986:242, 246).

(105)
a. ?Faro   [$_{VP}$scrivere a   Maria]$_i$ [$_S$Giovanni t$_i$].
    I-will-make   write   to
    'I will make Giovanni write to Maria.'

b. Faro   scrivere Giovanni a   Maria.
    I-will-make   write   to
    same as (105a)

In contrast to the Italian example in (105a), its French equivalent is unacceptable. We attribute this to the fact that rightward movement of accusative NP's, regardless of their grammatical function, is freer in Italian than in French (Rizzi 1986:531, fn. 31), as shown by the contrast between (106) and (107).

(106)
a.   Ho   invitato a partecipare il presidente.
      I-have invited to participate the president
      'I invited the president to participate.'

---

b. Considero piu intelligente il presidente.
    I-consider more intelligent the president
    'I consider the president more intelligent.

(107)
a. *J'ai   invite a participer le president.
    I have invited to participate the president
    same as (106a)

b. *Je considere plus intelligent le president.
    I consider more intelligent the president
    same as (106b)

Burzio observes that there is an alternative derivation of (96) to that in (104) which must be ruled out as well. The derivation in question is made available by the existence of the causative construction illustrated in (98), in which the causative verb subcategorizes for bare VP complements according to Burzio. The derived structure that must be ruled out cannot simply be that in (108), however, since examples containing unaccusative verbs, which are structurally parallel to (108) under Burzio's analysis, are acceptable, as shown in (109).[48]

(108)
    Giovanni fara [$_{VP}$essere invitato Piero]

(109)
    Giovanni fara   [$_{VP}$intervenire Piero].
              will-make   intervene
    'Giovanni will make Piero intervene.'

Burzio attempts to capture the contrast between unaccusatives and passives with respect to embedding under causatives by adopting an analysis under which the verb 'be' takes small clause complements. Given this analysis, the derived structure he assigns to the sentence in (97) under the *faire*-VP derivation is as shown in (110). We return below to the difference in word order between (97) and (110).

(110)
        Giovanni fara [$_{VP}$essere [$_{sc}$Piero$_i$ invitato t$_i$]]

The representation in (110) cannot be ruled out on purely structural grounds since sentences completely parallel to it, as in (111), are acceptable.

(111)
    La sua espressione fa   [$_{VP}$sembrare [$_{sc}$Giovanni ammalato]].
    the his expression makes   seem   sick
    'His expression makes Giovanni seem sick.'

According to Burzio, the structure in (110) is ruled out because subject clitics are obligatory in contexts in which 'be' is immediately followed by a full NP in Romance, yet cannot appear in embedded contexts for independent reasons (1986:281).

The word order difference between (97) and (110) noted above means that there is one last derived structure for (97) that must be ruled out, which Burzio fails to discuss. This is the one that arises if NP-movement fails to apply in the small clause complement in (110).

---

[48]As Burzio 1986:269 notes, the VP-preposing structure for (109) is ruled out as a binding theory violation just like that in (104c).

(i)
        Giovanni fara [$_{VP}$intervenire t$_i$]$_j$ [$_s$[Piero]$_i$ t$_j$]

(112)

        Giovanni fara [$_{VP}$essere [$_{sc}$e invitato Piero]]

In what follows, we show that the derived structure in (112) cannot be ruled out under Burzio's assumptions. The crucial question that arises is whether *Piero* can receive case. In order to answer this question, we first consider the unembedded counterpart of the VP complement in (112), given in (113), to which Burzio would assign the structure in (114) (1986:155).

(113)

        Fu   invitato Piero.
        was invited
        'Piero was invited.'

(114)

        e$_i$ fu [$_{sc}$t$_i$ invitato Piero]

In structures like (114), Burzio assumes that the empty subject of the small clause complement undergoes NP-movement into the matrix subject position, from where it transmits nominative case to *Piero* by a special coindexing mechanism that links the structural subject position with a postverbal NP or clause. This mechanism is independently motivated by English cases like (115).

(115)

        It$_i$ bothers me [that John left]$_i$.

While it is true that the VP complement in (112) does not contain a matrix subject position from which case can be transmitted, the examples in (116) and (117) show that case in English as well as Romance can also be transmitted to a postverbal argument from the position of a small clause subject.[49]

(116)

        I consider [it$_i$ obvious [that John has left]$_i$].

(117)

a.   Ritengo   [$_{sc}$e$_i$ probabile [che S]$_i$]].
      I-believe   likely   that S
      'I believe it likely that S.'

b.   Jean croit   [$_{sc}$e$_i$ possible [que Pierre parte]$_i$].
           believes   possible that   leave-subj
      'Jean believes it possible that Pierre is leaving.'

We know from the acceptability of (111) that overt subjects of small clauses can receive case from the complex verb headed by *fare*. In conjunction with the possibility of transmitting case from the complement subject position to a postverbal argument as in (117), the structural parallelism between (111) and (112), repeated here in (118), has the consequence that a derivation of embedded passives based on (112) (= (118b)) is well-formed.[50]

---

[49]The examples in (117a) and (117b) are from Rizzi 1986:542 and Zubizarreta 1985:281, respectively.

[50]Burzio 1986:280 notes that case cannot be assigned to the complement subject position of small clauses headed by bare infinitives.

(i)

    *La sua espressione fa   sembrare [$_s$Giovanni soffrire].
     the his expression makes seem   suffer
     'His expression makes Giovanni seem to suffer.'

Our argument crucially assumes that small clauses headed by passive participles pattern with ones headed by adjectives rather than with ones headed by verbs. There are two possible reasons for this: either passive participles in Italian, unlike English, are invariably derived adjectives, or the fact that case cannot be assigned to the causee in (i) has to do with the fact that bare infinitives, but not participles, contain INFL in Italian, making them in effect the equivalents of English *to*-infinitives, cf. Kroch, Santorini and Heycock 1988.

(118)
a.   La sua espressione fa   [$_{VP}$sembrare [$_{SC}$Giovanni ammalato]]
b.   Giovanni   fara [$_{VP}$essere   [$_{SC}$e   invitato Piero]]

If the above argument holds up, then embedded passives cannot be ruled out structurally under Burzio's analysis. There is empirical evidence from French that they should not in fact be ruled out structurally. The French verb *laisser* 'let, make' can behave syntactically either like the English verb *make* or like *faire*, as illustrated in (119a) and (119b), respectively.[51]

(119)
a.   J'ai   laisse Jean lire le livre.
      I have let   read the book
      'I had Jean read the book.'

b.   J'ai   laisse lire le livre a Jean.
      I have let   read the book to
      same as (119a)

Both Zubizarreta's and Burzio's analyses lead one to expect that the acceptability of embedding passives under *laisser* will differ sharply depending on which construction *laisser* occurs in. In the periphrastic construction in (119a), embedded passives cannot be ruled out on structural grounds and should be acceptable, just as they are with perception verbs (Kayne 1975, Burzio 1986:289). In the *faire*-type construction in (119b), on the other hand, embedded passives should be completely unacceptable. The relevant facts are given in (120) (Gerald Prince, pers. comm.).

(120)
a. (?)Le chef de police a   laisse les manifestants etre arretes.
      the chief of police has let   the demonstrators be   arrested
      'The chief of police had the demonstrators arrested.'

b.   ?Le chef de police a   laisse etre arretes les manifestants.
      the chief of police has let   be   arrested the demonstrators
      same as (120a)

c.   *Le chef de police a   fait etre arretes les manifestants.
      the chief of police has made be   arrested the demonstrators
      same as (120a)

We attribute the slight awkwardness of (120a) to the fact that the most idiomatic way to express the intended proposition is to use the *faire*-VP construction. The crucial fact for us is that (120b), while awkward, contrasts with (120c), which is completely unacceptable. We take the fact that the sentences in (120) pattern by lexical item rather than by construction as conclusive evidence against both Zubizarreta's and Burzio's analyses of embedded passives.[52]

---

[51]The Italian cognate of *laisser*, *lasciare*, patterns with *fare* and occurs only marginally in the *make*-type construction of (119a). Hence, the argument we present below for French does not carry over to Italian.

[52]The word order in (120b) is apparently completely acceptable in Brazilian Portuguese (Gee 1977:479, fn. 2).

(i)
      Eu deixei ser levado o   piano.
      I let   be lifted the piano
      'I had the piano lifted.'

From the absence of relevant discussion in Perini 1977, we conclude that Portuguese has no *faire*-type causative construction, in contrast to the other Romance languages. Therefore, (i) does not tell against Burzio's analysis of embedded passives. The word order in (i) is derived from the *make*-type construction *Eu deixei o piano ser levado* by heavy-NP shift of the causee, cf. (106).

Though a structural treatment of the unacceptability of embedded passives appears attractive at first glance, the French facts in (120) show that such a treatment cannot be maintained. While we do not have a full-fledged alternative analysis of the unacceptability of embedding passives under *faire*, several considerations lead us to believe that a non-structural solution to the problem is not only necessary, but also independently motivated by cross-linguistic evidence and conceptually desirable. First, embedded passives are unacceptable in languages such as Dutch (Jack Hoeksema, pers. comm.) in which they cannot be ruled out under either Zubizarreta's or Burzio's analyses. The same is true of German. A unitary account of the unacceptability of embedded passives in these languages on the one hand and the Romance languages on the other appears to us to be desirable, especially in view of the fact that they contrast as a group with English and Japanese not only with regard to embedded passives but also with regard to allowing the *faire*-VP construction. Note that Portuguese is an exception to the general Romance pattern; like English, it has neither the *faire*-infinitive nor the *faire*-VP construction, and embedded passives are acceptable. Two questions arise, which we will not attempt to answer here: first, whether the unacceptability of embedded passives in Germanic and Romance can be attributed to the availability of the *faire*-VP construction and its functional equivalence to a construction containing an embedded passive clause and second, why embedded passives appear to be more unacceptable in Romance than in Germanic.

Second, Zubizarreta 1982:241ff., following Kayne 1975, notes that embedding raising verbs is unacceptable in French when their complements are tensed.

(121)
```
*Ce     rapport fait  sembler que  la  situation est tres mauvaise.
 this report   makes seem     that the situation is   very bad
 'This report makes it seem that the situation is very bad.'
```

Variants of (121) where *sembler* takes an untensed complement, as in (122), are ungrammatical as well.

(122)
```
*Ce     rapport fait  sembler la  situation etre tres mauvaise/
         etre tres mauvaise la  situation.
 this report   makes seem     the situation be   very bad
         be    very bad     the situation
 'This report makes the situation seem to be very bad.'
```

Zubizarreta argues that it is desirable to treat the ungrammaticality of (121) and (122) in a parallel way. But such a parallel treatment is not possible under analyses that propose to rule out (122) by appealing to structural constraints such as constraints on trace binding since (121) cannot be so ruled out. Under Burzio's analysis, for instance, (121) is associated with the well-formed structure in (123).[53]

(123)
```
        ce rapport fait [vpsembler que la situation est tres mauvaise]
```

Zubizarreta goes on to suggest that *faire* selects non-stative complements and that the unacceptability of both (121) and (122) is due to the stative aspect of the complement verb *sembler* 'seem'. While her approach extends straightforwardly to rule out complements of *faire* that contain adjectives, which are typically stative,[54] it encounters difficulties in the case of embedded passives because passive clauses are not always stative. One way of attempting

---

[53]Burzio 1986:317, fn. 46 gives the Italian equivalents of sentences such as (121) the judgment (?)?, conceding that their unacceptability is unexpected under his analysis.

[54]Estival 1986:14 observes that the correlation between adjectival status and stativity is not perfect (we thank Anthony Kroch for this reference). For instance, the English adjectives *early* or *late* are non-stative when used of persons.

to salvage Zubizarreta's solution is to say that when 'be' is the passive auxiliary, the stative aspect of 'be' overrides the aspect of the entire passive verb. Thus, it is well known that embedded passives in English, while acceptable with *be*, cf. (9b), are more natural with *get*, which seems to express punctual aspect. Similarly, passives embedded under perception verbs in Italian improve when the passive auxiliary *essere* 'be' is replaced by *venire* 'come' (Raffaella Zanuttini, pers. comm.; Burzio 1986:318, fn. 53). The question remains open, however, why 'be' should override other factors in determining the relative acceptability of embedding under causative verbs, since it is well known that in general the aspect of an embedded clause is the result of the complex interaction of different factors. We consider it more plausible that what actually determines the acceptability of embedding clauses under *faire* is the relative agentivity of the causee among the lexically present arguments of the embedded clause, in line with our discussion of English embedded passives. Under the reasonable assumption that *faire* requires an agentive causee, sentences like (121) and (122) are then ruled out because their causees are pleonastic. Under this approach, we can explain certain contrasts in Burzio 1986. For instance, if we take the subject of the copula *stare*, literally 'stand', to be more agentive than that of *essere* 'be', the contrast in (124) follows.[55]

(124)
a. (?)Questo fara   stare Giovanni piu attento.
      this   will-make stand   more careful
      'This will make Giovanni more careful.'

b. ?*Questo fara   essere Giovanni piu attento
      this   will-make be   more careful
      same as (124a)

Similarly, the slightly higher acceptability of (124b) in comparison to (97) follows from the fact that *Giovanni*, while fairly non-agentive, is the only complement argument in (124b), while it is outranked by the syntactically unrealized agent of *invitato* in (97). Difficulties remain, however. Consider (111), repeated here as (125).

(125)
   La sua espressione fa   sembrare Giovanni ammalato.
   the his expression   makes seem   sick
   'His expression makes Giovanni seem sick.'

Given that *sembrare* fails to assign an external theta-role, we would expect (125) to be ruled out on a par with (121). It is true that *sembrare* in (125) has the sense of 'give the impression of being' rather than a pure sentential operator sense, but how this intuition is to be reconciled with the structural analysis of *sembrare* as a raising verb is a question that we must leave open here.

In the *sembler*-constructions in (121) and (122), it is the unacceptability of (121) that is unexpected under a structural analysis. The converse case is illustrated in (120), where (120b) is unexpectedly acceptable. We attribute the contrast between (120a) and (120b) on the one hand and (120c) on the other to the fact that *faire* in contrast to *laisser* requires an agentive causee. Though this leaves unexplained the difference in acceptability between (120a) and (120b), it captures the intuition that the acceptability of embedding complement verbs under causatives depends more on the choice of causative verb than on the choice of the construction in which that causative verb appears. In this connection, it is worth pointing out that the contrast between *laisser* and *faire* has a parallel in English, where

---

[55]The examples in (124) are from Burzio 1986:281.

non-agentive causees are more acceptable with *let* than with *make*, as shown in (126).[56]

(126)
a.   They let there be exceptions to the rules.
b. ??They made there be exceptions to the rules.

Finally, Burzio, following Kayne 1975, notes the ungrammaticality of (127a), which contrasts with the perfect acceptability of (127b).

(127)
a.   *Giovanni ha   fatto disturbare i   vicini   alla   televisione.
              has made bother   the neighbors to-the television
        'Giovanni made the TV bother the neighbors.'

b.   La   televisione ha   disturbato i   vicini.
      the television   has bothered   the neighbors
      'The TV bothered the neighbors.'

He attributes the ungrammaticality of (127a) to the fact that the causee "is required to be the highest on a certain hierarchy based on animacy" (1986:309, fn. 8). We will not undertake here to determine whether the relevant hierarchy is in fact based on animacy, as Burzio proposes, or on agentivity, as we suggest. Rather, we would like to make the point that if non-structural criteria need to be appealed to in order to rule out (127a), then there is no argument from conceptual economy that such criteria ought not to be appealed to in the case of embedded passives. In fact, there is some empirical evidence that non-structural criteria should in fact be appealed to in order to rule out embedded passives. This evidence comes from the fact that the acceptability of embedding sentences that contain psychological verbs like *disturbare* 'bother' appears to be correlated cross-linguistically with the acceptability of embedding passives. Both are completely unacceptable in Romance but essentially acceptable in English, especially if a manner clause is added to a complement that contains a psychological verb, as in (128).

(128)
        John made the TV bother the neighbors by turning up the volume.

In German, the equivalent of (128) is quite unacceptable, and embedded passives are generally judged to be unacceptable as well. The German case is particularly interesting since embedded passives, though often judged unacceptable, are in fact structurally possible, as shown in (129), though such sentences are subject to certain ill-understood constraints (Hoehle 1978:54, 69, 172).

(129)
        Der Autor   laesst die Heldin   gleich   im   ersten Kapitel
                umgebracht werden.
        the author lets   the heroine already in-the first   chapter
                killed   be
        'The author has the heroine get killed right in the first chapter.'

These facts suggest to us that the acceptability of embedding psychological verbs and passives is correlated because of shared thematic properties.

---

[56]Note, incidentally, that verbs of pure causation like *cause* pattern with *let* and other verbs of permission as against *make* and other verbs of coercion.

(i)
a.   They caused there to be exceptions to the rules.
b.   They allowed/permitted there to be exceptions to the rules.
c.   *They forced there to be exceptions to the rules.

In conclusion, we have shown in this section that two proposals to rule out the embedding of passive clauses under causatives on structural grounds do not succeed in their goal. After presenting evidence that this goal is misguided for empirical reasons, we suggested that embedded passives should be ruled out in terms of non-structural factors such as the relative agentivity of the causee.

5. Italian

In this section, we discuss the Italian causative construction illustrated in (3), repeated here as (130a). As in French and Japanese, the causee is dative if the complement verb is transitive (or more precisely, if it does not assign lexical case) and accusative if the complement verb is intransitive.

```
(130)
a.   Il   professore ha   fatto leggere il   libro agli     studenti.
     the professor  has made  read    the book  to-the students
     'The professor made the students read the book.'

b.   Il   professore ha   fatto lavorare gli studenti.
     the professor  has made  work      the students
     'The professor made the students work.'
```

Following Zubizarreta 1985, we will argue that the causative construction in Italian, superficial appearances notwithstanding, differs from that in French and Japanese in being monoclausal at derived structure. Our adherence to the Projection Principle thus forces us to derive the Italian causative in the lexicon. After presenting the facts that motivate a monoclausal analysis, we propose a lexical redundancy rule that generates a morphologically complex causative verb and we discuss its syntactic properties. The monoclausal analysis that we adopt is by no means generally accepted, and the majority of studies of the Italian causative, at least in the Government-Binding framework, have given it a syntactic derivation (see references in Burzio 1986:231). In particular, it has been argued that the causee in Italian, just as in French, is a structural subject at derived structure. We will show, however, that the evidence supporting this claim can be reconciled with our analysis, under which the causee is an object. Finally, we discuss matrix passives of the Italian causative construction.

5.1. Evidence for a monoclausal analysis

The strongest piece of evidence for a monoclausal analysis of the Italian causative is the fact that Italian, in contrast to the other languages that we have discussed so far, permits complement objects to be promoted to matrix subject position, as in (131).

```
(131)
a.   Questo libro e   stato fatto leggere a   tutti gli studenti.
     This   book  is been  made  read    to all   the students
     'This book was made to be read by all the students.'

b.   *Ce   livre a    ete  fait lire a  tous les etudiants.
     This book  has been made read to all   the students
     same as (131a)
```

We can see no way of giving a plausible explanation of this possibility under a biclausal analysis. This is true regardless of whether the passive is considered to be a syntactic or a lexical process. Under a syntactic analysis of the passive, the trace of the complement object would violate Principle A of the binding theory (Zubizarreta 1985:284), while under a lexical analysis, the passive rule does not have access to the complement object.

A second class of facts that bears on the analysis of the Italian causative concerns the binding behavior of reflexives, reciprocals and pronouns. In general, the construal of emphatic reflexives and reciprocals in infinitival complements is clause-bound in Italian, as shown in (132).

(132)
a.   Gianni ha   visto [$_S$Maria rasare se stessa/*stesso].
             has seen   shave refl-fem   masc
       'Gianni saw Maria shave herself/*him.'

b.   Noi$_i$ due abbiamo sentito [$_S$i   due bambini$_j$ chiamarsi
             l'un   l'altro$_{j/*i}$
      we   two have   heard   the two children call-ref
             the one the other
      'The two of us$_i$ heard the two children$_j$ call each other$_{j/*i}$.'

In the causative construction, however, Zubizarreta 1985:279 claims that an emphatic reflexive in complement object position can be bound by a matrix subject.

(133)
       Piero$_i$ ha   fatto rasare se stesso$_i$ a   Maria.
               has made shave refl-masc to
       'Piero made Maria shave him.'

Zubizarreta judges (133) to be completely acceptable, while Burzio finds the structurally parallel sentences in (134) slightly less than perfect (1986:309, fn. 8.; 310, fn. 11).

(134)
a. (?)Maria$_i$ ha   fatto accusare se stessa$_i$ a   Giovanni.
                has made accuse   refl-fem   to
       'Maria made Giovanni accuse her.'

b.   ?Maria$_i$ fara   telefonare Giovanni a   se stessa$_i$.
                 will-make telephone   to refl-fem
       'Maria will make Giovanni call her.'

Burzio attributes the slight marginality of these sentences to "the 'predominance' of the embedded subject among the dependents of *fare*". It is worth noting that his judgments on these examples and his discussion of them are inconsistent with the biclausal analysis of the causative construction that he defends and with his view that the interpretation of the emphatic reflexive pronoun *se stesso* involves reconstruction at LF of the preposed VP's *accusare se stessa* and *telefonare a se stessa* (Burzio 1986:286).[57] Since reconstruction results in a structure essentially like (132), the sentences in (134) should be completely unacceptable.

Burzio 1986:243f. further notes that the matrix subject in a causative construction can be the antecedent of the reciprocal expression *l'uno ... l'altro* in Italian but not of the corresponding French expression *l'un ... l'autre*, as shown in (135).

(135)
a.   ?Facciamo$_i$ sempre telefonare la   segretaria$_j$ l'uno   all'altro$_{i/*j}$.
       we-make   always telephone the secretary   the one to the other
       'We always make the secreatry call each other.'

---

b. *Nous$_i$ ferons   ecrire notre ami$_j$ l'un   a l'autre$_{i/*j}$.
    we   will-make write our   friend the one to the other
    'We will make our friend write to one another.'

Unlike him, we take this contrast as evidence for the different status of the causative construction in the two languages. The less than perfect status of (135) is attributable to the same source as that of the sentences in (134). Finally, Burzio 1986:243 observes that coreference between the matrix subject and the personal pronoun *lui* as in (136) is "rather difficult".

(136)
    ?*Giovanni$_i$ fara   telefonare Maria proprio a   lui$_i$.
              will-make telephone   exactly to him
       'Giovanni will have Maria call precisely him.'

Again, this is just what is expected under a monoclausal analysis of the Italian causative.

While the above judgments are clearly consistent with a monoclausal analysis, the interpretation of reflexives, reciprocals and pronouns is subject to variation. Raffaella Zanuttini, a speaker from Torino like Burzio, gives us judgments on the sentences in (133)-(135) that are diametrically opposed to those discussed above, as shown in (137).

(137)
a.   Piero$_i$ ha   fatto rasare se stesso$_i$/?stessa$_j$ a Maria$_j$.
              has made shave refl-masc   fem   to
       'Piero made Maria shave *him/?herself.'

b.   Maria$_i$ ha   fatto accusare se *stessa$_i$/?stesso$_j$ a Giovanni$_j$.
              has made accuse   refl-fem   masc   to
       'Maria made Giovanni accuse *her/?himself.'

c.   Maria$_i$ fara   telefonare Giovanni$_j$ a   se *stessa$_i$/stesso$_j$.
              will-make telephone   to refl-fem   masc
       'Maria will make Giovanni call *herself/himself.'

d.   *Facciamo$_i$ sempre telefonare la   segretaria$_j$ l'uno   all'altro$_{i/j}$.
      we-make   always telephone the secretary   the one to the other
       'We always make the secreatry call each other.'

If we attribute the marginality of the variants of (137a) and (137b) in which the reflexive is bound by the causee to the fact that the antecedent in these cases follows its referential dependent, then these judgments are precisely those that are expected under a biclausal analysis of the Italian causative. Not surprisingly, Zanuttini rejects (138), which differs from (136) in that the complement object is the emphatic reflexive rather than a pronoun.

(138)
    ?*Giovanni$_i$ fara   telefonare Maria proprio a se stesso$_i$.
              will-make telephone   exactly to refl-masc
       'Giovanni will have Maria call precisely him.'

One might be tempted to conclude from these facts that there is idiolectal variation with regard to the Italian causative construction and that the construction is associated by different speakers with a monoclausal or a biclausal representation. There is evidence against such a view, however. For one thing, Burzio gives judgments like Zanuttini's elsewhere in his book, cf. (142b) below, and conversely, Zanuttini agrees with Burzio's judgments in (136). Furthermore, Zanuttini allows complement objects to be promoted to matrix subject. This would be unexpected given a biclausal analysis of the causative, as noted above. While it is true that the observed range of

judgments on the binding facts does not follow directly from a monoclausal analysis, it is easier to see how these judgments can be accommodated under a monoclausal analysis than it is to see the converse, namely how the passive facts can be accommodated under a biclausal analysis. Given a monoclausal analysis, a purely configurational treatment of binding, such as that proposed by Chomsky 1981, leads us to expect either the matrix subject or the causee to be able to act as an antecednet for anaphoric expressions in complement object position. The judgments discussed above suggest that such an approach is not viable, and that antecedents are selected on the basis of other syntactic criteria, such as grammatical relations or thematic role. Here, we can do no more than raise this issue, the discussion of which clearly goes far beyond the scope of this paper. We observe, however, that the first class of judgments concerning the sentences in (133)-(136) follows if the antecedent must be a grammatical subject, a common requirement in many languages. The second class of judgments, on the other hand, appears to require that the antecedent is the "closest" agent argument, where the concept of closeness remains to be made explicit.

5.2. Complex verb formation

Having concluded that the Italian causative construction is monoclausal at derived structure, we are forced by our adherence to the Projection Principle to treat the combination of *fare* and the complement verb as a lexically derived complex verb. The required rule is given in (139), where X can be null.

(139)
```
        V: <     X>   -->   V[+causative]: <     X NP>
```

The effect of this rule is to take any verb and to give a causative verb whose subcategorization frame differs from that of the input verb in having an additional argument corresponding to the causer. Several questions arise concerning the syntactic properties of the derived verb, in particular its thematic and case-assigning properties. We assume that the thematic roles assigned by the complement verb simply carry over to the complex causative verb. This raises the question whether the external theta-role of *fare* is distinct from that of the external theta-role of the complement verb; i.e. whether there exists a theta-role of causer distinct from that of agent. At first glance, it appears that the answer should be positive, since otherwise the complex causative verb, unlike other theta-role assigners, would assign a given theta-role, namely that of agent, more than once. But there is evidence that complex causative verbs are not subject to the same thematic constraints as morphologically simple theta-role assigners. This evidence is based on double causatives, which are possible in principle since the causative rule is recursive. While judgments concerning double causatives are complicated by the fact that two consecutive infinitives in Italian are marginal to begin with (Longobardi 1980), there is a fairly clear contrast between double causatives where the most deeply embedded argument is agentive and ones where it is not, as shown in (140).[58]

(140)
```
a.  *Laura ha  lasciato/fatto far   correre il   bambino all'    infermiera.
          has let         made make run      the child    to-the nurse
      'Laura let/made the nurse make the child run.'

b.  Laura ha  lasciato/?fatto far   correre l'   acqua ai      vicini.
          has let           made make run      the water to-the neighbors
      'Laura let/made the neighbors run the water.'
```

This contrast is unexplained under the assumption that complex verbs can assign a particular theta-role only once.

---

[58]Not surprisingly, double causatives containing two instances of *fare* are less acceptable than ones in which *fare* alternates with *lasciare*.

In particular, (140b) would be expected to be unacceptable given that the external argument of the higher causative, *Laura*, bears the same theta-role (whether causer or agent) as the external argument of the lower causative, *ai vicini* 'the neighbors'.

The complex verb assigns structural case like a morphologically simple verb. (We assume that *a* in Italian, like *ni* in Japanese, is a case-marker in addition to being an adposition.) Thus, the case-assigning properties of the complex verb in Italian are analogous to those of the Japanese 'make' causative discussed in Section 3. If the complement verb is intransitive, the complex verb is transitive and the causee receives structural accusative case. The case-marking pattern for unaccusative complement verbs is the same as that for intransitives since unaccusatives, though unlike intransitive verbs in that they subcategorize for an argument, share with intransitives the inability to assign case. With complement verbs that assign lexical dative case, as in *scrivere a Gianni* 'write to Gianni', the complex causative verb inherits both the case assignment property and the linking of the lexical dative to the complement object from the lexical entry of the complement verb. The only argument that needs to be assigned case by the complex verb is thus the causee, which receives structural accusative case. The fact that the causee cannot receive structural dative case with these three complement verb types follows if we assume with Goodall 1984 that the assignment of structural dative case depends on the prior assignment of structural accusative case.[59] Finally, we must consider complement verbs that assign structural case. By definition, structural case assignment depends on the syntactic configuration in which a verb occurs rather than on information associated with a lexical entry. Therefore, the complex verb is unable to inherit the required information from the complement verb. We are thus forced to assume that the complex verb assigns structural case like a ditransitive verb. This leads to the following difficulty. The complex verb can in principle assign its two structural cases in two ways: the structural accusative to the complement object and the structural dative to the causee, or vice versa. Only the former pattern is acceptable, however. We must leave for future research a solution of this problem, which is similar, but not identical to the one that arises in Japanese or French. The problem is in fact more difficult given the lexical status of the Italian causative since the configurational information that is available on the basis of the initial tree that is involved in the derivation of the Japanese or French causative is not available in Italian. Here, we can only stipulate that any case assigned by the complex verb to one of its arguments must be consistent with the case that would be assigned to the corresponding argument in a simple clause.

In principle, our formulation of the causative rule permits the derivation of complex causative verbs from ditransitive verbs. However, the assumption that the resulting causative verb has the case-assigning properties of a morphologically simple verb in conjunction with the fact that no simple verb in Italian assigns dative case twice leads one to expect that sentences containing such verbs should be unacceptable. This expectation is borne out, as shown in (141).[60]

---

[59]Adopting Goodall's assumption commits us to the position that the *a*-phrases in *scrivere a Gianni* 'write to Gianni' and in *scrivere una lettera a Gianni* 'write a letter to Gianni' are instances of lexical and structural dative, respectively; cf. fn. **35.

[60]The acceptability of sentences like (141) does not improve if the causee is made to precede the direct object, as it does in French.

(141)

```
*Paolo ha   fatto mandare i   libri/la  lettera al    suo figlio
       has made  send    the books the letter to-the his son
       alla   sua moglie.
       to-the his wife
      'Paolo made his wife send the books/the letter to his son.'
```

5.3. Apparent evidence for a biclausal analysis

As mentioned above, the Italian causative has generally been given a biclausal analysis. Here, we briefly review the evidence presented in favor of such an analysis in the most influential recent treatment, that of Burzio 1986, and we discuss how this evidence can be reconciled with the monoclausal analysis that we have just proposed. Burzio 1986:262 observes that the causee "functions like a subject of the embedded verb in three respects: (i) 'semantically', (ii) with respect to selectional restrictions; and (iii) in the role of antecedent [of certain phrases]." As he notes, the fact that causees satisfy the first two functions is not conclusive evidence for their status as structural subjects, since *da*-phrases in the passive and in the *fare*-VP construction satisfy these functions as well. Thus, for Burzio, the defining characteristic of a structural subject as opposed to a 'semantic' or a 'thematic' subject is the fact that it can act as an antecedent for PRO, the emphatic reflexive *se stesso* 'himself', *ciascuno* 'each' and a number of other referentially dependent expressions. For reasons of space, we discuss only the facts concerning PRO and *se stesso*. The relevant contrasts are given in (142) and (143) (Burzio 1986:263ff.).

(142)

```
a.  Ho       fatto affermare [sdi PRO_i averla    vista] a  Giovanni_i.
    I-have made  claim         of       have-her seen   to
    'I made Giovanni claim to have seen her.'
```

```
b.  Con  le  minacce, fecero    accusare se stesso_i a  Giovanni_i.
    with the threats  they-made accuse   refl-masc   to
    'By using threats, they made Giovanni accuse himself.'
```

(143)

```
a. ?*Ho      fatto affermare [sdi PRO_i averla    vista] (da  Giovanni_i).
     I-have made  claim         of       have-her seen        by
     'I had it claimed (by Giovanni) to have seen her.'
```

```
b.  Con  le  minacce, fecero    accusare se stesso_i (da  Giovanni_i).
    with the threats  they-made accuse   refl-masc    by
    'By using threats, they had himself accused (by Giovanni).'
```

Burzio attributes this contrast to the fact that the causees in (142) c-command PRO and *se stesso*, while the *da*-phrases in (143), being PP's, do not.[61] But if the crucial property of the causees in (142) is that they c-command their referential dependents, then the fact that they can function as antecedents fails to show that they bear the grammatical relation of subject, since referential dependents can also be construed with c-commanding direct or indirect objects in Italian. This is shown in (144) and (145), respectively.[62] We attribute the slight marginality of (145b) to the fact that the antecedent follows its referential dependent. If the linear order of the antecedent and *se stesso* is reversed, as in (145c), the sentence becomes completely acceptable.

---

[61]Although Burzio explicitly rejects the position that we adopt, namely that *a* is a case marker rather than a preposition (1986:307, fn. 2), it is clear that he must treat *a* as a special preposition that does not block c-command.

[62]The example in (145a) is from Burzio 1977:38.

(144)
a. Laura ha   costretto Paolo$_i$ [a   PRO$_i$ guidare].
         has forced   Paolo   to   drive
    'Laura forced Paolo to drive.'

b. Maria ha   mostrato Giovanni$_i$ a   se stesso$_i$ nello   specchio.
         has shown   to refl-masc   in-the mirror
    'Maria showed Giovanni to himself in the mirror.'

(145)
a. Il comandante ordino   ai   suoi uomini$_i$ [di PRO$_i$ interrompere
        le operazioni.
    the commander   ordered to-the his   men   of   discontinue
        the operations
    'The commander ordered his men to discontinue the operations.'

b. ?Maria ha   mostrato se stesso$_i$ a   Giovanni$_i$ nello   specchio.
          has shown   refl-masc   to   in-the mirror
    same as (144b)

c. Maria ha   mostrato a   Giovanni$_i$ se stesso$_i$ nello   specchio.
         has shown   to   refl-masc   in-the mirror
    same as (144b)

Thus, the facts concerning the construal of referentially dependent elements fail to provide conclusive evidence in favor of a biclausal analysis of the Italian causative since they are also consistent with a monoclausal analysis under which causees bear the grammatical relation of object.

5.4. Matrix passivization

Our monoclausal analysis of the Italian causative leads us to expect that causees should behave like the objects of a ditransitive verb with respect to passivization. That is, accusative but not dative causees should passivize, since in Italian only objects that are assigned accusative case can undergo passive. In this respect, Italian resembles German and differs from Japanese, where objects that are assigned structural case can be promoted by passive, regardless of whether they bear structural accusative or structural dative.

(146)
a. Questi libri furono mandati a   Paola.
    these   books were   sent   to
    'These books were sent to Paola.'

b. *(A) Paola fu   mandata   questi libri.
        to   was sent-fem these   books
    'Paola was sent these books.'

This expectation is consistent with the facts, though there is *prima facie* counterevidence in the form of (147), where the dative causee in (130a) has apparently been promoted to matrix subject.

(147)
    Gli studenti furono fatti leggere il   libro.
    the students were   made   read   the book
    'The students were made to read the book.'

It can be shown, however, that (147) is not in fact the passive counterpart of the monoclausal causative construction in (130a). Rather, (147) is structurally parallel to the perception verb passive in (148a), which is related to an active in which *vedere* 'see' subcategorizes for a small clause complement, as in (148b).

(148)

a.   Gli studenti furono visti leggere il   libro.
     the students were   seen read   the book
     'The students were seen to read the book.'

b.   Il professore ha visto [$_S$gli studenti leggere il   libro].
     the professor has seen   the students read   the book
     'The professor saw the students read the book.'

In order to show that dative causees cannot be promoted to matrix subject, we must rule a derivation of passives like (147) which is based on the small clause subcategorization frame. Following Burzio, we do so by exploiting the fact that clitic raising is essentially obligatory in the causative construction in (130) but ruled out in small clause structures like (148b). This is shown in (149) and (150), respectively. The reason we illustrate the unacceptability of clitic raising in the small clause construction by using *vedere* 'see' rather than *fare* is that small clause complements are for some reason marginal with active forms of *fare* (Burzio 1977:37).[63]

(149)

a.   Il professore l' ha fatto leggere agli   studenti.
     the professor it has made read   to-the students
     'The professor made the students read it.'

b. ??Il professore ha fatto leggerlo agli   studenti.
     the professor has made read-it to-the students
     same as (149a)

(150)

a. *Il professore l' ha visto gli studenti leggere.
     the professor it has seen the students read
     'The professor saw the students read it.'

b.   Il professore ha visto gli studenti leggerlo.
     the professor has seen the students read-it
     same as (150a)

Crucially, the passive corresponding to (149a) is ungrammatical, in contrast to that corresponding to (150b) (Burzio 1986:232).

(151)

a. *Gli studenti lo furono fatti leggere.
     the students it were   made read
     'The students were made to read it.'

b.   Gli studenti furono fatti leggerlo.
     the students were   made read-it
     same as (151a)

This shows that the promotion of dative causees to matrix subject is ruled out.[64]

In the case of accusative causees, there turns out to be no conclusive evidence that the passive in (152) must be related to the active in (130b), given its potential derivation as a small clause passive parallel to (147).

---

[63]The judgments in (149) and (150) are from Burzio 1986:260 and Burzio 1977:11, respectively.

[64]Burzio 1977:12 claims that perception verbs can occur in the construction in (130), though native speakers of Italian and French whom we have consulted find the relevant sentences unacceptable. Given Burzio's judgments, there is a potential derivation of (148a) according to which it is the passive corresponding to *Hanno visto leggere il libro agli studenti* 'They saw the students read the book', just as in the case of *fare*. The parallelism with *fare* is complete, however, and the ungrammaticality of the perception verb counterpart of (151a), *Gli studenti lo furono visti leggere* 'The students were seen to read it', shows that (148a) must be the passive counterpart of the small clause construction in (148b).

(152)
```
Gli studenti furono fatti lavorare.
the students  were   made  work
'The students were made to work.'
```

One might attempt to exploit the position of dative clitics in order to show that a passive like (153a) must be related to an active like (153b).

(153)
a.
```
I    bambini  furono fatti scrivere alla    nonna.
the children were   made  write    to-the grandmother
'The children were made to write to their grandmother.'
```

b.
```
Ho      fatto scrivere i    bambini alla    nonna.
I-have made  write    the children to-the grandmother
'I made the children write to their grandmother.'
```

Unfortunately, replacing the indirect object in (153b) by the corresponding clitic is for some reason unacceptable in Italian, as shown in (154a),[65] and it is therefore not possible to base any conclusions on the unacceptability of (154b).

(154)
a.
```
?Le  ho      fatto scrivere i    bambini.
her I-have made  write    the children
'I made the children write to her.'
```

b.
```
*I    bambini le  furono fatti scrivere.
the children her were   made  write
'The children were made to write to her.'
```

However, since there is no evidence that (152) cannot be related to (130b), we assume that (152) is derivationally ambiguous. Given this assumption, the behavior of dative and accusative causees parallels that of indirect and direct objects of ditransitive verbs, as expected.

In summary, we have argued that the acceptability of promoting complement objects to matrix subject provides conclusive evidence for a monoclausal analysis of the causative in Italian. In contrast to a biclausal analysis, a monoclausal analysis is consistent with the variability of judgments concerning the binding of reflexives, reciprocals and pronouns in the causative construction. It is also consistent with facts concerning the construal of other referentially dependent elements which have been taken to provide conclusive evidence for a biclausal analysis. Finally, the parallel behavior of morphologically simple verbs and morphologically complex causative verbs with respect to matrix passivization follows directly from a monoclausal analysis of the causative.

6. Conclusion

In this section, we present a brief summary of the results of our investigation and outline several important questions that remain to be addressed in future research. First, our discussion reaffirms a conclusion reached by many other investigators, namely that causative constructions in many languages involve mismatches between syntax and morphology. The most striking instances of this among the languages that we have discussed in this paper are Japanese and Italian. Thus, while the Japanese causative verb is a single word by phonological and morphological criteria and has the case-assigning properties of a morphologically simple verb, the syntactic

---

[65]This is also true for French.

behavior of the Japanese causative construction is biclausal and essentially identical to that of English. In particular, complement objects in Japanese cannot be promoted to matrix subject. The Italian causative, on the other hand, has the converse properties: though the combination of the causative and the complement verb does not form a single word in Italian, complement objects can undergo promotion to matrix subject. This shows that the causative construction in Italian has the syntactic properties of a monoclausal structure and that, given the Projection Principle, it must involve the formation of a complex causative verb in the lexicon. The French causative construction is intermediate between the two. As in Italian, the combination of the causative and the complement verb does not form a single word, but the syntactic properties of the French construction are those of a biclausal structure, as in Japanese. Finally, the combination of the causative verb and the complement verb functions as a unit for the purposes of case assignment in all three languages.

Second, our discussion has demonstrated the importance of thematic considerations in the analysis of the causative construction. Even in English, where the combination of the causative and the complement verb does not act as a unit for case assignment and where the syntactic structure of the causative construction is unequivocally biclausal, the nexus between the matrix clause and the complement clause is closer than in the case of other infinitival complement structures, such as Exceptional Case Marking constructions. This is reflected in the unacceptability of certain passive complements of *make*, which we suggested should be attributed to thematic properties. We argued that such thematic properties, rather than purely structural considerations, are at the root of the unacceptability of embedded passives in French and Italian as well. It remains an open question how our observations are to be expressed in a formal analysis. Note that the problem in the English case is more difficult than that of reconciling the biclausal structure of the causative with the fact that the causee is apparently subject to selectional restrictions, which under standard assumptions must be stated on subcategorized arguments. Rather, since the acceptability of embedded passives in English appears to be determined by thematic properties of the causee in relation to other arguments of the complement clause, *make* requires thematic information about all the complement arguments, not just the causee.[66] In certain thematic respects, then, the matrix clause and the complement clause behave as a unit in English much as they do in Italian.

A number of other questions also remain to be resolved. First, we have seen that the combination of the causative and the complement verb can function like a single complex verb with regard to case assignment. In all the languages discussed above other than English, this complex verb assigns structural case like a transitive or ditransitive verb, depending on the number of arguments that do not receive lexical case from the complement verb. While it is reasonably clear how case is assigned by the complex verb when the complement verb is intransitive or assigns lexical case, an important technical question arises in the case of transitive complement verbs as to how the two available structural cases are linked to the appropriate arguments. In the languages that we discuss, the complex verb assigns structural accusative in a way that is consistent with its assignment by the corresponding complement verb. That is, information concerning the assignment of structural accusative behaves in this respect *as if* structural accusative were lexical. However, we know that the complex verb assigns structural rather than lexical case because the arguments that are assigned structural accusative by the complex verb do not pattern together with ones that are assigned lexical case with regard to passive.

---

[66]This means that an analysis of causatives (and other NP-XP constructions) like that proposed by Williams 1983, Rapoport 1986 and others, under which *make* subcategorizes for an NP VP sequence rather than for a small clause, will not resolve the difficulty.

A second open question concerns the relationship between causative constructions in which the case marking on the causee is invariably accusative, as in English, and ones in which the case marking on the causee is either dative or accusative, depending on the transitivity of the complement verb (or more precisely, on whether the complement verb assigns structural case), as in French, Italian and Japanese. In particular, it is tempting to speculate that there exists a tendency for the second type of causative to develop from the first. In this connection, we note that Dutch, which in general has only the first type of causative, as in (155a), permits the second type with a very limited class of complement verbs (essentially *horen* 'hear', *lezen* 'read' and *zien* 'see'), as illustrated in (155b).

(155)
a. Ik liet mijn zoon de brief zien.
    I   let   my   son   the letter see
    'I let my son see the letter.'

b. Ik liet de brief aan mijn zoon zien.
    I   let   the letter to   my   son   see
    'I showed my son the letter.'

The resulting collocations *laten horen*, *laten lezen* and *laten zien* have the specialized meanings 'play (a record) for someone', 'give (to read)' and 'show', respectively. That is, these collocations correspond semantically to morphologically simple ditransitive verbs. In French and Italian as well, we find that *faire voir* and *fare vedere*, 'make see' are used as equivalents of the simple verbs *montrer* and *mostrare* 'show'.[67] The fact that the combination of the causative and the complement verb is associated with the case array of a ditransitive verb in many languages appears to derive from this semantic correspondence (Nilsson-Ehle 1948:95).

Third, though the passive facts of Italian show that the combination of the causative and the complement verb must be derived in the lexicon and that arguments of the complement verb become arguments of the complex derived verb, the process of complex verb formation in Italian is clearly not a morphological process of the same type as that required for the derivation of the Japanese causative verb. Rather, the fact that the complex causative verb acts like a word in certain respects, but does not form a single word by morphological criteria is reminiscent of particle verbs in the Germanic languages, instances of reanalysis as in the case of *let go of* and *make do with*, and cases of complex predicate formation, such as *make an offer* (Cattell 1984). In our view, the most interesting and important issue for further research on causative constructions is the formulation of a coherent analysis of this related complex of phenomena.

Finally, the syntactic behavior of perception verbs tends to parallel that of causatives in many languages, including the ones that we have discussed. For instance, in the Romance languages, perception verbs pattern with causatives in (marginally) allowing the subjects of their infinitival complements to be case-marked dative rather than accusative, just like causees. In English and French (as well as German and Dutch), bare infinitive matrix passivization is ruled out with causatives as well as with perception verbs. But there are also differences between the two classes of verbs. This is particularly clear in the Romance languages, where embedded passives are acceptable under perception verbs but not under causatives. Furthermore, matrix passivization, which is grammatical in Italian, is slightly less acceptable with causatives than with perception verbs (Raffaella Zanuttini, pers. comm.), as shown in (156).

---

[67]Anthony Kroch has pointed out to us the converse of this, namely that ditransitive verbs such as 'give' or 'show' can be analyzed as containing the primitive predicate CAUSE.

(156)
a. (?)Gianni e   stato fatto leggere il libro.
          is been   made read   the book
   'Gianni was made to read the book.'

b.   Gianni e   stato visto leggere il libro.
          is been   seen read   the book
   'Gianni was seen to read the book.'

An analogous but sharper contrast arises in Spanish, as shown in (157) (Jose Maria Fontana, pers. comm.).

(157)
a. ?*Maria fue dejada robar el carro.
          was let   steal the car
   'Maria was permitted to steal the car.'

b.   Maria fue vista robar el carro.
          was seen steal the car
   'Maria was seen to steal the car.'

It seems reasonable to assume that these syntactic differences have to do with the fact that perception verbs, in contrast to causatives, subcategorize for NP objects in addition to clausal complements. This is also what appears to be the source of the contrast in (158).

(158)
a.   I saw/heard Mary running up the stairs.
b.   *I made/let Mary running up the stairs.

A unitary treatment of the facts in (156)-(158), however, must be left for a future occasion.

References

Aissen, Judith. 1974. Verb raising. *Linguistic Inquiry* 5, 325-366.

Aissen, Judith. 1979. *The syntax of causative constructions*. New York: Garland Publishing, Inc.

Baker, Mark. 1985. *Incorporation. A theory of grammatical function changing*. Doctoral dissertation, M.I.T.

Besten, Hans den. 1981. A case filter for passives. In: *Theory of markedness in generative grammar. Proceedings of the 1979 GLOW Conference*, eds. Adriana Belletti, Luciana Brandi and Luigi Rizzi, 65-122. Pisa: Scuola Normale Superiore di Pisa.

Besten, Hans den and Jerold A. Edmondson. 1983. The verbal complex in Continental West Germanic. In: *On the formal syntax of the Westgermania*, ed. Werner Abraham, 155-216. Amsterdam: Benjamins.

Burzio, Luigi. 1978. Italian causative constructions. *Journal of Italian linguistics* 2, 1-71.

Burzio, Luigi. 1981. *Intransitive verbs and Italian auxiliaries*. Doctoral dissertation, M.I.T.

Burzio, Luigi. 1986. *Italian syntax. A Government-Binding approach*. Dordrecht: Reidel.

Callaway, M. 1913. *The infinitive in Anglo-Saxon*. Washington, DC: Carnegie Institution.

Cattell, Ray. 1984. *Composite predicates in English*. (Syntax and Semantics 17). Sydney: Academic Press.

Chomsky, Noam. 1981. *Lectures in government and binding*. (Studies in generative grammar 9). Dordrecht: Foris.

Comrie, Bernard. 1976. The syntax of causative constructions: cross-linguistic similarities and divergences. In: *Syntax and semantics 6*, ed. Masayoshi Shibatani, 261-312. New York: Academic Press.

Coopmans, Peter. 1985. On the proper representation of reanalysis in causative constructions in Dutch. In: *Germanic linguistics: Papers from a symposium at the University of Chicago*, ed. Jan Terje Faarlund, 125-134. Distributed by the Indiana Linguistics Club.

Davidson, Donald. 1967. The logical form of action sentences. Reprinted in: Davidson, Donald. 1980. *Essays on actions and events*, 105-148. Oxford: Clarendon Press.

Dubinsky, Stanley. 1985. *Japanese union constructions: a unified analysis of -sase and -rare*. Doctoral dissertation, Cornell University.

Estival, Dominique. 1986. *The passive in English: a case of syntactic change*. Doctoral dissertation, University of Pennsylvania.

Fabb, Nigel. 1984. *Syntactic affixation*. Doctoral dissertation, M.I.T.

Gee, James Peter. 1977. Remarks on the paper by Akmajian. In: *Formal syntax*, eds. Peter W. Culicover, Thomas Wasow and Adrian Akmajian, 461-481. New York: Academic Press.

Goodall, Grant. 1984. *Parallel structures in syntax*. Doctoral dissertation, University of California, San Diego.

Heycock, Caroline. 1987. The structure of the Japanese causative. Technical report MS-CIS-87-55, Department of Computer and Information Science, University of Pennsylvania. Pennsylvania.

Higginbotham, James. 1982. The logic of perceptual reports. Occasional paper No. 21. Center for Cognitive Science, M.I.T.

Hoehle, Tilman N. 1978. *Lexikalistische Syntax. Die Aktiv-Passiv-Relation und andere Infinitkonstruktionen im Deutschen*. (Linguistische Arbeiten 67). Tuebingen: Niemeyer.

Hoeksema, Jack. 1986. A constraint on governors in the West Germanic verb cluster. Paper presented at the Annual Winter Meeting of the Linguistic Society of America, New York, NY.

Howard, I. and Niyekawa-Howard. 1976. In: *Japanese Generative Grammar*, ed. Masayoshi Shibatani. (Syntax and Semantics 5). New York: Academic Press.

Jespersen, Otto. 1933. *Essentials of English grammar*. University, AL: University of Alabama Press.

Jespersen, Otto. 1940. *A modern English grammar on historical principles. Part 5. Syntax. Fourth volume*. Copenhagen: Munksgaard.

Joshi, Aravind K. 1983. Tree adjoining grammars: How much context-sensitivity is required to provide reasonable structural description? In: *Natural language processing: psycholinguistic, computational and theoretical perspectives*, eds. David Dowty, Lauri Karttunen and Arnold Zwicky, 206-250. New York: Cambridge University Press.

Joshi, Aravind K., L. Levy and M. Takahashi. 1975. Tree adjunct grammars. *Journal of the computer and system sciences* 10, 136-163.

Kayne, Richard S. 1975. *French syntax: the transformational cycle*. Cambridge, MA: MIT Press.

Kroch, Anthony S. 1986. Unbounded dependencies and subjacency in a tree adjoining grammar. To appear in: *Proceedings of the First Conference on the Mathematics of Language*, ed. Alexis Manaster-Ramer.

Kroch, Anthony S. 1987. Asymmetries in long distance extraction in a TAG grammar. To appear in: *Alternative conception of phrase structure*, eds. Mark Baltin and Anthony S. Kroch. Chicago: University of Chicago Press.

Kroch, Anthony S. and Aravind K. Joshi. 1985. The linguistic relevance of tree adjoining grammars. Technical report MS-CIS-85-16, Department of Computer and Information Science, University of Pennsylvania. To appear in: *Linguistics and Philosophy*.

Kroch, Anthony S. and Aravind K. Joshi. 1987. Analyzing extraposition in a tree adjoining grammar. In: *Discontinuous constituency*, eds. Geoffrey Huck and Almerindo Ojeda, 107-149. (Syntax and Semantics 20). New York: Academic Press.

Kroch, Anthony S., Beatrice Santorini and Caroline Heycock. 1988. Bare infinitives and external arguments. To appear in: *Proceedings of NELS 18*. Amherst, MA: GSLA.

Kuno, Susumu. 19??. Notes on Japanese sentence patterns.

Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: MIT Press.

Kuno, Susumu. 1976. Subject raising. In: *Japanese Generative Grammar*, ed. Masayoshi Shibatani. (Syntax and semantics 5). New York: Academic Press.

Kuno, Susumu. 1978. *Theoretical perspectives on Japanese linguistics*. In: *Problems in Japanese syntax and semantics*, eds. J. Hinds and I. Howard. Tokyo: Kaitakusha.

Kuroda, Shige-Yuki. 1965. Causative forms in Japanese. *Foundations of Language* 1.

Kuroda, Shige-Yuki. 1979. On Japanese passives. In: *Explorations in linguistics: papers in honor of Kazuko Inoue*, eds. G. Bedell, E. Kobayashi, and M. Muraki.

Lightfoot, David. 1979. *Diachronic syntax*. Cambridge: Cambridge University Press.

Longobardi, Giuseppe. 1980. Remarks on infinitives: a case for a filter. *Journal of Italian Linguistics* 5, 101-155.

Marantz, Alec. 1984. *On the nature of grammatical relations*. (Linguistic Inquiry Monograph 10). Cambridge, MA: MIT Press.

Miyagawa, Shigeru. 1980. *Complex verbs and the lexicon*. Doctoral dissertation, University of Arizona.

Miyagawa, Shigeru. 1984. Blocking and Japanese causatives. *Lingua* 64, 177-207.

Nilsson-Ehle, Hans. 1948. Observations sur la soudure syntaxique du groupe 'faire + infinitif'. *Studia linguistica* 2, 93-118.

Ostler, N. 1980. A non-transformational account of Japanese case-marking and inflection. *MIT Working Papers in Linguistics* 2, 63-92.

Perini, Mario A. 1977. *Gramatica do infinitivo portugues*. Petropolis: Editora Vozes.

Postal, Paul. 1986. *Studies of passive clauses*. Albany: State University of New York Press.

Quicoli, Carlos. 1980. Clitic movement in French causatives. *Linguistic Analysis* 6, 131-185.

Rapaport, Tova. 1986. Nonverbal predication in Hebrew. In: *Proceedings of the West Coast Conference on Formal Linguistics. Volume 5*, eds. Mary Dalrymple et al., 207-218. Stanford: Stanford Linguistics Association.

Rizzi, Luigi. 1986. Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17, 501-557.

Roeper, Thomas and Jean-Roger Vergnaud. 1980. The government of infinitives. Ms., University of Massachusetts, Amherst.

Rosen, Carol. 1983. Universals of causative union: a co-proposal to the Gibson-Raposo typology. *Chicago Linguistic Society* 19: 338-52.

Rosenbaum, Peter S. 1967. *The grammar of English predicate complement constructions*. Cambridge, MA: MIT Press.

Ross, John Robert. 1972. Doubl-ing. *Linguistic Inquiry* 3, 61-86.

Rouveret, Alain and Vergnaud, Jean-Roger. 1980. Specifying reference to the subject: French causatives and conditions on representation. *Linguistic Inquiry* 11, 97-202.

Ruwet, Nicolas. 1972. *Theorie syntaxique and syntaxe du francais*. Paris: Editions du Seuil.

Saito, Mamoru. 1982. Case marking in Japanese: a preliminary study. Ms., M.I.T.

Shibatani, Masayoshi. 1973. Where morphology and syntax clash: a case in Japanese aspectual verbs. *Gengo Kenkyu* 64, 65-96.

Stowell, Timothy. 1981. *The origins of phrase structure*. Doctoral dissertation, M.I.T.

Tonoike, Shigeo. 1978. On the causative construction in Japanese. In: *Problems in Japanese syntax and semantics*, eds. J. Hinds and I. Howard. Tokyo: Kaitakusha.

Visser, F.Th. 1973. *An historical syntax of the English language*. Leiden: Brill.

Wasow, Thomas. 1977. Transformations and the lexicon. In: *Formal syntax*, eds. Peter W. Culicover, Thomas Wasow and Adrian Akmajian, 327-360. New York: Academic Press.

Williams, Edwin S. 1983. Against small clauses. *Linguistic Inquiry* 14, 287-308.

Zubizarreta, Maria Luisa. 1982. *On the relationship of the lexicon to syntax*. Doctoral dissertation, M.I.T.

Zubizarreta, Maria Luisa. 1985. The relation between morphophonology and morphosyntax: the case of Romance causatives. *Linguistic Inquiry* 16, 247-289.