FOCUS IN TRIADIC CONSTRUCTIONS

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Abstract

This paper investigates the information structure of sentences with ditransitive verbs in English. Relying on the empirical adequateness of the argument structural approach to focus structure (Selkirk 1984, Gussenhoven 1984), clear predictions concerning the syntactic representation of triadic constructions can be derived. The main goal of this paper is to defend a syntactic analysis of the dative alternation along the lines of Baker (1988, 1997) and to show that alternative proposals in which one of the arguments is analyzed as a syntactic adjunct are not supported from a focus-theoretical point of view. Since double object constructions raise some problems for the overall applicability of the focus rules, a constraint on focus domain formation will be formulated which is not construction specific, but independently motivated.

1.   Introduction

Since the early eighties it is a well established fact that sentence accentuation in languages like English, German and Dutch reflects the argument structure of the predicate. Though it is still a mystery how two levels of grammatical representation which do not directly interface should show such a close interaction,[1] linguists have continued to refine the rules of sentence accentuation or have employed accentual patterns as a test for syntactic constituency. A famous example is the numerous debates about subject-prominent sentences and their significance for the consolidation of the argument structural (AS) approach to focus structure. The accent pattern of these sentences turned out to receive a relatively simple explanation with the advent of the Unaccusative Hypothesis, when it was realized that the predicate in such cases is generally an unaccusative verb and the subject an internal argument.

Given the fact that accentual patterns can be used as "windows" to argument structure, this paper explores the peculiarities of the focus structural articulation of the two constructions participating in the so-called "dative alternation", namely the double object construction (DOC) in (1a) and the oblique construction (OC) in (1b).

(1)   a.   John gave Melinda a melon.   (DOC)

        b.   John gave a melon to Melinda.   (OC)

Concerning the syntactic representation of the dative alternation, two major trends can be discerned in the literature: a derivational approach, generally associated with the work of Emonds (1972, 1993), Larson (1988), Baker (1988, 1997) and den Dikken (1992), in which one of the two constructions in (1) is derived from the other, and a base-generation (lexicalist) approach defended in the work of Oehrle (1976), Gropen et al. (1989), Mulder (1992), among others. The derivational approach itself is divided on the question of which of the two constructions in (1) is basic, and which is the derived one. While the above mentioned authors assume that the OC is the basic construction, linguists who are mainly concerned with the representation of quantifier scope in triadic constructions, like Aoun & Li (1989), Kitagawa (1994) and Stroik (1996), argue that the OC is derived from the DOC by way of a passive-like transformation.[2]

The main idea we pursue here is that a study of the focus structure of triadic constructions can provide independent evidence for the adequacy of a syntactic analysis. Although this evidence cannot be conclusive, but can only supplement independent syntactic evidence, it allows us to exclude any analysis which resorts to a VP-internal passive transformation or to the representation of arguments as syntactic adjuncts. One of the limitations of this approach is that it cannot establish whether the
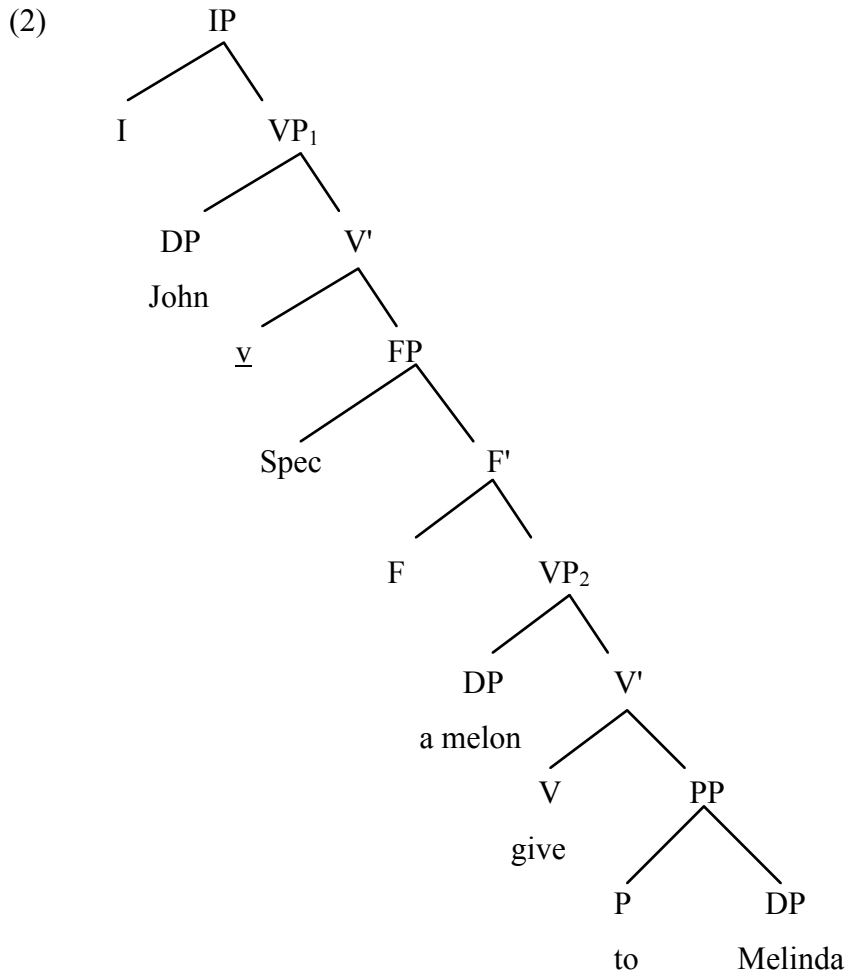
two constructions are derivationally related or whether they are base-generated. Therefore, we start out from a particular syntactic analysis of the dative alternation and try to defend it from a focus-theoretical point of view.

The paper is structured as follows: In section 2 we discuss the syntactic representation of the English dative alternation. We argue that an analysis along the lines of Baker (1988, 1997), in which the DOC is derived from an underlying structure similar to that of the OC, is essentially correct. We also argue that several modifications to Baker's analysis are necessary. In section (3) we discuss the focal properties of the English dative alternation within the framework of the argument structural (AS) approach (Gussenhoven 1984, Selkirk 1984, Drubig 1994, Winkler 1997). We show that the syntactic analysis assumed in this paper is largely supported from a focus-theoretical point of view. Some problematic aspects for the argument structural approach, particularly the non-integrativity of the indirect object in wide focus contexts, are argued to follow from an independently motivated restriction on focus domain formation. This will be the topic of section 4.

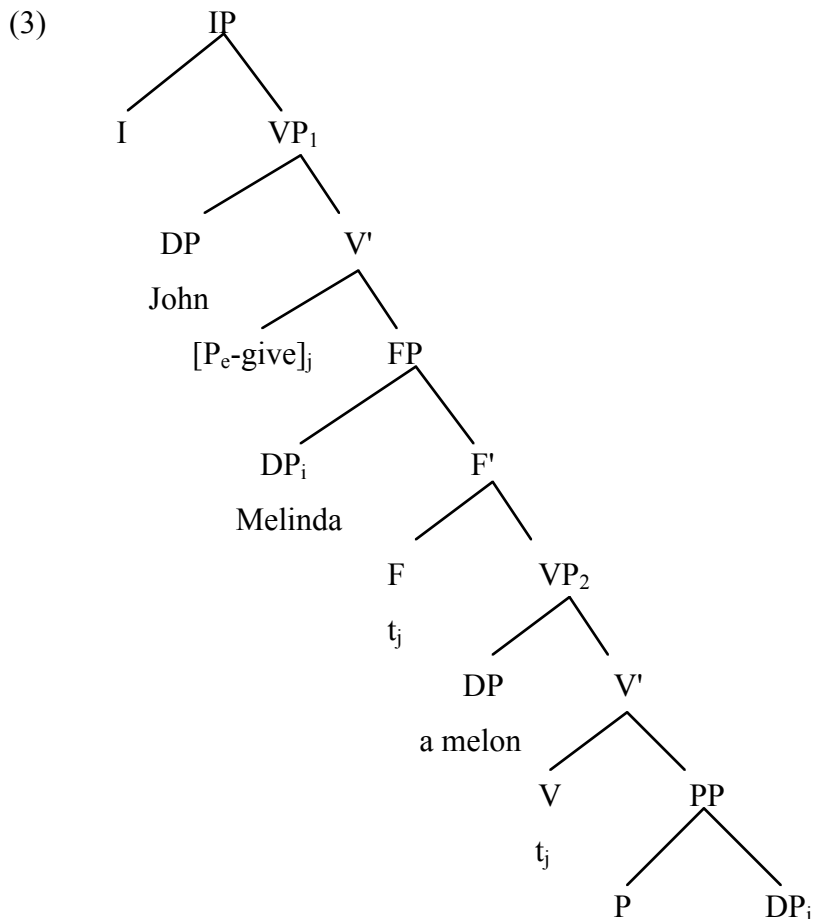## 2.   The syntactic structure of triadic constructions

The syntactic structure of the dative alternation we defend in this paper closely follows the analysis proposed by Baker (1997). We assume a configurational approach to thematic licensing where each argument is generated within the projection of a separate head (cf. Hale & Keyser 1993, Chomsky 1995). Given the VP-internal subject hypothesis, the structure of triadic constructions features two VP-shells, one projected by the lexical verb and the second a projection of an empty verb $\underline{v}$ (a 'light verb' in Chomsky 1995, a voice head in Kratzer 1994). The lexical verb is complemented by a

PP headed by the preposition <u>to</u> or <u>for</u> in the OC. The underlying structure of the OC is represented in (2). VP$_1$ and VP$_2$ are separated by a functional projection FP.[3]

(2)

```
                    IP
                   /  \
                  I    VP₁
                      /  \
                    DP    V'
                    John /  \
                        v    FP
                            /  \
                         Spec   F'
                               /  \
                              F    VP₂
                                  /  \
                                DP    V'
                             a melon /  \
                                    V    PP
                                  give  /  \
                                       P    DP
                                      to   Melinda
```

In Baker's analysis the DOC is an "applied" construction. It is derived from an underlying structure that corresponds to the OC in (2), but differs from (2) in that the indirect object is headed by an empty preposition which incorporates into the lexical verb. Since incorporated prepositions cannot assign case to their objects, as argued by Baker (1988), the indirect object has to move away from its base-generated position. We assume that this position is SpecFP. Case on the indirect object is eventually licensed by <u>v</u>, presumably by covert movement to a second specifier of VP$_1$, as argued by Chomsky (1995).[4] We also assume that the incorporated preposition can discharge

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its case feature to the direct object in SpecVP$_2$ in the course of the derivation. The derivation of the DOC is given in (3).

(3)

```
          IP
         /  \
        I   VP₁
           /  \
          DP   V'
         John  / \
         [Pₑ-give]ⱼ  FP
                    /  \
                  DPᵢ   F'
                Melinda / \
                       F   VP₂
                       tⱼ  /  \
                          DP   V'
                        a melon / \
                               V   PP
                               tⱼ  / \
                                  P   DPᵢ
```

Though not discussed by Baker, the direct object in the OC in (2) above does not remain in SpecVP$_2$, but moves to a higher position as well. The evidence comes from extraction facts. In the normal case it is possible to extract from a direct object in its base position if this object is not specific, as in (4a) and (4b). Extraction from subjects is ungrammatical regardless of specificity, as in (4c). Runner (1995: 113f.) shows, however, that extraction from the subject of the passive sentences in (5), though not perfect, is much better. Whatever the explanation of the contrast between extraction from external arguments and derived subjects, a similar contrast shows up in triadic constructions: in (6a) <u>wh</u>-movement from the direct object of the DOC is fine, in (6b)

extraction from the direct object of the OC is worse,[5] and (6c), where the <u>wh</u>-phrase has been extracted from the indirect object of the DOC, is ungrammatical.

(4)   a.   Who did you see [a/*that picture of t]

      b.   What did he read [a/*that book about t]

      c.   * Who did you say [some friends of t] hunted wolves?

(5)   a. ? Who did you say [some friends of t] were found dead in the cemetery?

      b. ? Who did you say John expects [friends of t] to be arrested?

(6)   a.   Who did you say John sent Mary [a picture of t]?

      b. ? Who did you give [a picture of t] to John?

      c. * Who did you say John sent [friends of t] a picture of his baby.

If the degraded character of the examples in (5) is due to a left-branch effect after movement of the object to SpecIP, then a similar explanation must hold of (6b) and (6c). Consequently, the direct object in the OC must have moved from its base-position. This is also supported by the fact that floating quantifiers are possible in this construction (7), a general indicator of A-movement (cf. Bowers 1993). We assume it has moved to SpecFP.


(7)   a.   Mary sent the books all to John.

      b.   I bought the books all for John.

2.1 Reconsidering the analysis of the oblique construction

In this section we discuss syntactic evidence which calls into question certain details of the analysis of the OC presented to this point. One set of facts concerns reordering restrictions with multiple goals. Consider the examples in (8). (8a) and (8b) show that two goal PPs are allowed in the OC, but they occur with a fixed order: the directional PP must precede the recipient PP. (8c) shows that dative shift is not possible in this configuration. A'-movement of the animate argument is also ungrammatical, as in (8d).

(8) a.   John sent the book to London to Mary.

     b.   *John sent the book to Mary to London.

     c.   *John sent Mary the book to London.

     d.   ?*To whom did John send the book to London?

The ungrammaticality of dative shift and A'-movement can be explained if the recipient PP is an adjunct of the directional phrase, adjoined to some projection of P, as in (9). Since PP's are barriers for movement even for extraction from complement position of the object of P (cf. 10), the ungrammaticality of (8c) and (8d) receive a natural explanation.[6]

(9)
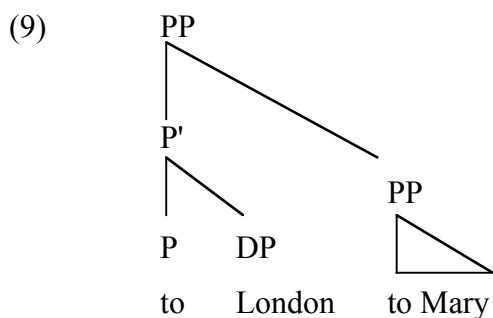
(10)   *Who did John send books [to friends of t]?

But why is the reverse order in (8b) not possible? What could prevent adjunction of the directional PP to some projection of the preposition that heads the recipient? Could it be that animate goals are always adjuncts? Before providing an analysis that captures this reordering restriction we discuss another set of facts which suggest that the OC has properties similar to passive sentences.

Aoun & Li (1989), Kitagawa (1994) and Stroik (1996) propose an analysis of the dative alternation in which the OC is derived from the DOC by way of a passive-like transformation. Kitagawa (1994) draws a parallel between the passive and the OC by pointing out several features these two constructions share. First, the oblique object is optional like the by-phrase in the passive. This is illustrated in (11). Second, an implicit oblique object can act as the controller of the PRO subject of an infinitival clause (12a), a fact well-known from passive sentences like (12b). The sentences in (13) show the analogy of the two constructions with respect to condition A of the Binding Theory: backward binding of anaphors is possible in both constructions.

(11) a.   He has already sent the letters (to his customers).

       b.   He has already sent his customers *(the letters).

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     c.   The letters have already been sent (by the secretary).

(12) a.   The commander sent the order (to the platoon$_i$) [PRO_i to retreat

          immediately].

     b.   The boat was sunk (by them$_i$) [PRO$_i$ to collect the insurance money].

(13) a.   ?John gave each other's pictures to the kids?

     b.   ?Each other's pictures were destroyed by John and Mary.

On the other hand, Stroik (1996) points out that the relative scope of negative quantifiers in the OC mirrors scope relations in the passive. Consider (14) through (17). While (14) and (15) are ambiguous, the DOC in (16) is unambiguous and mirrors the active sentence in (17).

(14) Mary read nothing to no one.

     = Mary read everything to someone

     = Mary read something to everyone

(15) Nothing was read by no one.

     = everything was read by someone

     = something was read by everyone

(16) Mary read no one nothing.

     = Mary read everyone something

     ≠ Mary read someone everything

(17) No one read nothing.

      = everyone read something

      ≠ someone read everything

Stroik develops an account of the scope relations which heavily relies on these constructions having similar syntactic structures. The underlying structure he assigns to the passive and the OC is given in (18a) and (18b) respectively. The prepositions <u>by</u> and <u>to</u> are inserted to assign inherent case to the demoted arguments. The analyses in Aoun & Li (1989) and Kitagawa (1994) are similar to Stroik's analysis.[7]

(18) a.   ... [$_{VP}$ e$_{NP}$ [$_{V'}$ [$_{V'}$ read nothing] [$_{PP}$ by no one]]]

      b.   ... [$_{VP}$ Mary [$_{V'}$ e$_V$ [$_{VP}$ e$_{NP}$ [$_{V'}$ [$_{V'}$ read nothing] [$_{PP}$ to no one]]]]]

Although the OC seems to exhibit passive geometry, there is compelling evidence against analyzing the oblique object as a "chômeur" or VP-adjunct. We consider two tests here. The passive and the oblique constructions also behave differently in wide focus contexts. This will be discussed in section 3.3 below.

The first test is extraction from <u>wh</u>-islands. Consider (19) and (20). <u>Wh</u>-movement of the oblique object with or without P-stranding from within a <u>wh</u>-island yields a mildly deviant question (a typical subjacency violation), while extraction of a <u>by</u>-phrase results in an ungrammatical sentence (a typical ECP violation). Given standard extraction accounts (e.g., Chomsky 1986), the <u>by</u>-phrase, but not the <u>to</u>-phrase, is an adjunct.

(19) a.   ?   Who did he wonder whether John sent the book to?

      b.   ?   To whom did he wonder whether John sent the book?

(20) a.   *   By whom did you wonder whether the book was written?

      b.   *   Who did you wonder whether the book was written by?

The second test involves incorporation in adjectival passive constructions. Levin & Rappaport (1986) have argued that adjectival passive is derived from verbal passive by a rule of category conversion (cf. also Grimshaw 1990). What is important here is that adjectival passive formation (APF) externalizes the <u>direct argument</u> of the corresponding verb, where direct argument is understood as that argument which is directly theta-marked by the verb, or an argument which can occur as the sole argument of the verb. With verbs like <u>serve</u> or <u>pay</u>, for example, either the goal or the theme may serve as the sole argument of the verb, hence both can be externalized. Cf. (21) and (22):

(21) a.   serve the soup (to the guests)

      b.   serve the guests (some soup)

(22) a.   the soup remained unserved

      b.   the guests remained unserved

If a verb obligatorily selects two arguments, in the corresponding adjectival construction the direct argument is externalized, whereas the second argument must be encoded within the projection of the adjective, as required by the Projection Principle. This is illustrated in (23).

(23) a.   stuff feathers *(into the pillow)

      b.   the feathers remained stuffed *(into the pillow)

Randall (1992), on the other hand, makes a distinction between Passive Compound Formation (PCF) and APF, as in (24). She argues that PCF incorporates an adjunct, while APF incorporates an argument. Her examples are given in (25) and (26). Note that the source of the modifiers in (25) are PP adjuncts (by hand, on a tree, etc.).

(24) a   the [$_A$ home-cooked] meal   (PCF)

b.   the [$_A$ sent-home] kids   (APF)

(25) a.   the hand-picked berries   (manner)

b.   the tree-ripened pears   (location)

c.   the machine-drawn plans   (instrument)

d.   the amateur-flown plane   (agent)

(26) a.   the left-alone lovers

(cf. *the alone-left lovers)

b.   the lulled-asleep audience

c.   the set-free tigers

d.   the kept-captive chicken

Building on Randall's insights, we can use the PCF test to determine whether the oblique phrases in triadic constructions are adjuncts or arguments. It is immediately clear from the examples in (27) below that neither a to-dative nor a for-dative can incorporate into the adjective. Yet a typical "chômeur" is unproblematic.[8] The examples in (28), whose source is the DOC, are also excluded. The indirect object can be externalized as in a regular passive, but the second argument has to be encoded within the projection of the adjective. Because the adjective cannot incorporate any argument, the examples are ruled out by the Projection Principle.

(27) a.   a God-sent angel   [cf. sent by God/*sent to God]

      b.   monk-brewed beer   [cf. brewed by monks/*brewed for monks]

      c.   * child-given cookies   [cf. given to a child/children]

      d.   * friend-booked tickets   [cf. book tickets for a friend]

(28) a.   * bracelet-given friend   [cf. give a friend a bracelet]

      b.   * car-sold customers   [cf. sell one's customers cars]

      c.   * car-bought friend   [cf. buy a friend a car]

Having seen that there are problems with a VP-internal passive transformation or an analysis of the oblique phrase as an adjunct, we propose an alternative analysis which captures at least some of the empirical facts noted so far. Assume that the formative <u>to</u> is ambiguous between a lexical preposition and a case marker. Bittner & Hale (1996) argue that case is a syntactic head which projects a phrasal projection KP. KP represents the maximal extension of the nominal projection: it is the counterpart of CP, which is the maximal extension of the verbal projection. The difference in grammaticality between (8a) and (8b) above can be explained if <u>to Mary</u> is of category KP, as in (29), and the head of the directional PP <u>to London</u> is a lexical preposition. If only lexical prepositions can be modified by adjuncts and specifiers, then the ungrammaticality of (8b) is due to the fact that the directional PP cannot be adjoined to a projection of K^0.

(29)   [$_{KP}$ to [$_{DP}$ D^0 [$_{NP}$ Mary]]]

Evidence that oblique recipients behave more like DPs than PPs comes from the fact that prepositional specifiers like <u>straight</u> and <u>right</u> naturally occur with Ps denoting a concrete path, as in (30), but resist modification if the path component is absent, as in (31).

(30) a.   He sent it straight to London.

b.   John threw the ball straight to Mary.

(31) a.   He gave it ??right / ?straight to the editor.

b.   John talked about her ??right /??straight to the headmaster.

c.   He showed it *right / *straight to the editor.

d.   He promised it *right / *straight to the editor.

e.   He rented the office *right / *straight to the editor.

Furthermore, the formative <u>to</u> is transparent for binding purposes, as the well-known

contrast in (32) shows. The examples in (33) show that the oblique can bind an anaphor

contained in an adjunct (33a), license negative polarity items (33b), bind variable

pronouns (33c), and it may occur in the <u>each</u> ... <u>the other</u> construction (33d). All these

phenomena have been argued to require strict c-command between the antecedent and

the dependent (cf. Barss & Lasnik 1986, Larson 1988). If <u>to</u> were a lexical preposition,

like <u>about</u> in (32b), then the PP structure projected by <u>to</u> would prevent its object from

c-commanding an anaphor, negative polarity item, variable pronoun, etc.[9]

(32) a.   He talked to John$_i$ about himself$_i$.

b. * He talked about John$_i$ to himself$_i$.

(33) a.   I showed the hidden assets to the thieves$_i$ somewhere near each other$_i$'s

dens.

b.   The Prime Minister granted additional funds to no MP at any time.

c.   I sent a present to everyone$_i$ the day before he$_i$ left.

d.   I showed the stolen jewels to each thief$_i$ in the other$_i$'s den.

Sentences with recipients (or an experiencer in the case of <u>show</u>) now pose a problem for the configurational approach to thematic structure, which we assumed at the beginning of section 2. If <u>to</u> can be a case marker in English, then it cannot function as the predicative link between the two internal arguments. We propose that in this case the oblique argument is introduced into the derivation by an empty particle (Prt), whereas in the DOC the indirect object is introduced by an empty preposition. Both P and Prt license two arguments: a locative and a theme argument. They differ in that both arguments of a P must be expressed syntactically, while only one argument of a Prt need be projected in the syntax, as in (34). We further assume that the Prt is an unaccusative preposition whose phrasal projection syntactically functions as a predicate.[10]

(34) a.   He put the book down (on the table).

b.   She threw the rascal out (of the house).

c.   He handed the tools down (to John).

The underlying structure of the OC is given in (35a) and the structure at Spell-Out in (35b). The Prt licenses the theme in SpecPrtP and the locative argument in complement position, as argued by Svenonius (1994). Since the Prt has no case feature to discharge, the direct object has to move to SpecFP, and the locative complement must be realized as a KP. Insertion of the formative <u>to</u> is a last resort operation in order for the construction to meet the Case Filter. In terms of case assignment our analysis does not differ substantially from Stroik's (1996), but our representation of the OC exhibits "unaccusative geometry", rather than a passive configuration.

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(35) a. $[_{VP1}$ John $[_{FP}$ $[_{VP2}$ give $[_{PrtP}$ the book $[_{Prt'}$ Prt^0 to Mary]]]]]

     b. $[_{IP}$ John$_k$ I^0 $[_{VP1}$ t_k Prt^0-give$_i$ $[_{FP}$ the book$_j$ $[_{VP2}$ t_i $[_{PrtP}$ t_j $[_{Prt'}$ t_{Prt} to Mary]]]]]]]

3. Focus structure and the English dative alternation

In this section we discuss the information structural properties of triadic constructions within the framework of the argument structural (AS) approach to focus structure. This approach claims that the phonological representation of a sentence is mediated by the argument structure of the predicate, so it will serve as a basic test for the validity of the syntactic representation we have developed in the previous sections. For example, by considering the integrative behaviour of the oblique phrase in the OC in wide focus contexts we will be able to show that it is not a syntactic adjunct like the <u>by</u>-phrase in passive sentences. On the other hand, several problems for the overall applicability of the focus rules will require certain amendments of the rules.

In the spirit of Jackendoff (1972) we assume that focus is a syntactic feature [F] freely assigned to constituents when they are selected for the initial numeration. The focus rules, in addition to specifying the PF representation of the syntactic structure annotated for focus, will also have to specify the LF representation. A theory which integrates both LF and PF rules is outlined in the next section.

In a focus-<u>in</u>-<u>situ</u> language like English the prosodic correlate of focus is a pitch accent, as argued by Selkirk (1984, 1995). For the phonological representation of intonational contours we adopt the auto-segmental theory as developed by Pierrehumbert (1980). This theory views the intonational contour of an utterance as a succession of discrete phonological events, namely pitch accents, phrase accents and boundary tones. The

notation will follow the ToBI Guidelines (Beckman & Ayers 1994, Beckman & Hirschberg 1994), which incorporate certain revisions of the original Pierrehumbert system. The ToBI conventions identify five different types of pitch accents in American English: two simple tones and three complex tones (cf. Figure 1). Since our discussion focuses on declarative sentences, the pitch accents we will mostly encounter are the simple "peak accent" H* and the "rising peak accent" L+H*.

PITCH ACCENT	DESCRIPTION
H*	'peak accent'
L*	'low accent'
L*+H	'scooped accent'
L+H*	'rising peak accent'
H+!H*	step down onto the accented syllable from a high pitch

Figure 1.   Inventory of American English pitch accents

In Pierrehumbert's system there are two intonational phrasing units: the intermediate phrase (ip), which consists of at least one pitch accent, and the intonational phrase (IP), which consists of at least one intermediate phrase. The boundaries of these intonational units are marked by phrasal tones. Figure 2 gives an overview of the phrasal tones in English.

PHRASAL TONE	DESCRIPTION
L- or H-	phrase accent
L% or H%	(final) boundary tone
%H	high initial boundary tone

Figure 2.   Phrasal tones in English

3.1 The argument structural approach to focus structure

The AS-approach was developed by Selkirk (1984), and independently by Gussenhoven (1984), in order to counter the inadequacy of the early proposal of the Nuclear Stress Rule by Chomsky & Halle (1968). In this paper we adopt the theory of focus developed by Drubig (1994) which combines a relational view on focus-background structure (FBS) (cf. Jacobs 1988, Moser 1992) with the AS-approach to F(ocus)-projection or focus ambiguous readings. The basic idea is that focus is licensed either by integration into wider focus domains or by association with an appropriate functional category. Drubig's focus rules are given in (36) and (37).

(36) Assign F.

(37) Focus is licensed on a head if either (a) or (b) is the case:

    a.   the category into which the head is projected is integrated into a wider

                focus domain;

    b.   the category into which the head is projected is associated with a focus-

                binding element. (Drubig 1994: 11)

Drubig further proposes the principle in (38), which regulates the distribution of prominence.

(38) Head Prominence Principle

      A head is prominent, iff its internal argument is not prominent. (p. 10)

Rule (37a) accounts for the traditional notion of F-projection or focus ambiguous readings; the focus inheritance rule of earlier approaches (Selkirk 1984,1995, and Rochemont 1986), which states that a head can inherit the focus feature from an F-marked argument, has been replaced by free F-marking (rule 36) and the Head Prominence Principle (HPP). In a language like English, where focus is mainly marked prosodically, the HPP can be viewed as an economy condition which minimalizes the representation of focus by accent.

By way of illustration, consider the example (39) with a pitch accent on the object.[11] This sentence is focally ambiguous because it is compatible with the three context questions in (40).

(39) $[_F$ I $[_F$ chased $[_F$ the CAT]]].

(40) a.   What did you chase?

      b.   What did you do?

      c.   What happened then?

According to rule (36), all heads may be assigned the F feature. Focus on the object DP

the cat as well as on the successively higher phrases, is licensed by rule (37a) under the

assumption that F-marking on each head (N, D, V, Infl) percolates the feature to its

maximal phrasal projection. Placement of prosodic prominence is then regulated by the

HPP, which ensures that the accent goes onto the object.[12] The HPP is motivated by two

basic phenomena: (i) default accent, and (ii) the behaviour of adjuncts and external

arguments. Default accent, originally discussed by Ladd (1980), shifts prominence from

an internal argument to its selecting head if the argument is construable from the

discourse. In (41B), as a reply to (41A), the object of the verb is "given" and cannot be

accented, but the whole sentence is focused. The pitch accent in this example is

retracted from its "normal" position on the internal argument to the verb. Assignment of

the [F] feature to the verb and to the auxiliary under Infl, which percolates to VP and IP

respectively, ensures that the whole sentence is focused.

(41) A: I've just cleared the sandwich and the other remnants of the meal from the

          table.

      B: I was EAting that sandwich!

Reference to internal arguments in the HPP is necessary in order to exclude adjuncts

and external arguments from accentual integration with the predicate. An example like

(42b), with a deaccented object, is not a well-formed response to (42a): both the object

of the verb and the object of the preposition must be accented, as in (42c). Since F-

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assignment is unconstrained, the HPP regulates prominence within both V' and PP. The focus feature on the verb percolates up to the VP node and the focused adjunct can be integrated into the F-marked VP, according to rule (37a). Note that a single accent on an external argument, as in (43), or an the adjunct in (42b), is only compatible with narrow focus on the respective constituent.

(42) a.   What did John do yesterday?

b.   #He read a book in the GARden.

c.   He [$_{F/VP}$ [$_{F/V'}$ read [$_F$ a BOOK]] [$_{F/PP}$ in [$_F$ the GARden]]].

(43)   [$_F$ JOHN] was reading.

Adopting a term introduced by Gussenhoven (1984), we assume that the application of the HPP is restricted to "focus domains". Any combination of a head and a complement defines a domain for the application of this rule. Consequently, external arguments and adjuncts are set off as separate focus domains, which must either be integrated into a larger focus, or bound by an appropriate functional head if focus is narrow.

Narrow focus is licensed by association with a focus binding element (rule 37b): this can either be an overt focus particle, such as only, even, or sentential polarity (negation or its positive counterpart affirmation). Drubig argues that at LF presentational focus is licensed in a polarity phrase within the IP domain of the clausal structure corresponding to the position of sentential negation in English, while contrastive focus is licensed by a second polarity phrase situated within the CP domain. This second polarity phrase corresponds to the position targeted by negative operators in negative inversion constructions and by contrastive/exhaustive focus in languages with overt focus

movement (e.g., Hungarian, Basque, Romance, cf. the analyses in terms of a F(ocus)P in Brody 1990 and Rizzi 1997).[13]

3.2   Focal vs. non-focal accentuation

Although the rules developed by the AS-approach are essentially correct as far as stress-timed languages like English, German and Dutch are concerned, there are several aspects which tend to be ignored in the literature on F-projection. Especially "pitch-accent first" models like Selkirk's (1984, 1995), but also Gussenhoven (1984), have spread the view that only focused material may be accented, and in wide focus contexts it is typically arguments and adjuncts which are assigned a pitch accent, while predicates are deaccented as discussed in the previous section. In this section we show that non-focal accentuation has to be taken seriously and we consider a proposal by Beckman (1996), where the distinction between focal and non-focal accents is discussed. Beckman's main idea is that not every type of pitch accent is relevant for the interpretation of focus structure. In what follows we use the term focal accent for the accentual prominence specified by the focus rules.

Consider the examples in (44) and (45). The question-answer pairs establish focus on the predicate in (44a), sentential focus in (44b),[14] and focus on the goal argument in (45a) and (45b).

(44)   Where's the hoover?

         H*   H* L-L%
  a.   The hoover's [F in the CLOset].

         H*   H* L-L%
  b.   [F JOHN put the hoover in the CLOset].

(45)   Who does Mary read the letters from her lover to?

          H*   H* L-L%
   a.   She reads the letters [F to MeLINda].

          H*   L-L%
   b.   She reads [F MeLINda] the letters.

The focus rules presented in the previous section are observed only in (44b) and (45b). Example (44a) shows that a defocused external argument may be accented. In (44b) the hoover is an internal argument and it is not accented. A possible explanation for the accent on the subject in (44a) is that, despite the clear background status of this constituent, the speaker sets up a topic-comment articulation for this sentence.[15] However, such an account cannot be extended to cover the example in (45a), where an accent occurs on the backgrounded verb. Comparison of (45a) with (45b) suggests that the verb is accented because the focal accent comes late in the utterance. A sample pitch extraction for (45a) is given in Figure 3.
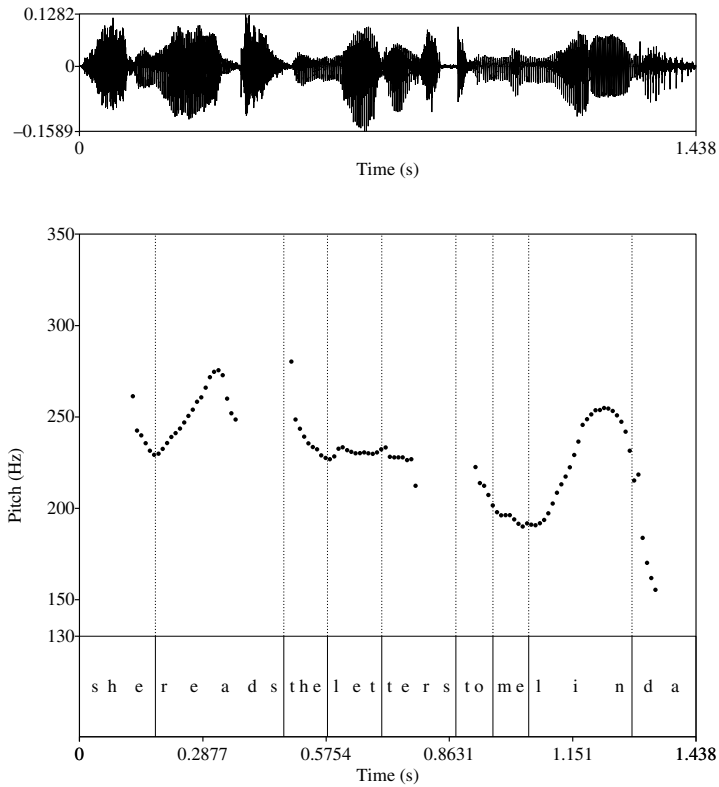
Figure 3.   F$_0$-contour of example (45a)

Given the fact that accentuation of defocused material is in principle possible, we also expect pitch accents on focused material which the focus rules predict to remain unaccented. If simple peak accents in pre-nuclear position were taken into account for the determination of focus structure, then the focus rules of the AS-approach would predict conflicting syntactic analyses for the following two examples. The argument would go as follows: the pitch accent on the verb signals non-integrativity with the argument, hence each constituent belongs to a separate focus domain. (46) would favour the analysis for the DOC proposed by Larson (1988), where the direct object is demoted to the status of a VP-adjunct.[16] The example in (47), on the other hand, would favour an analysis in which the oblique argument is analyzed as a "chômeur" (Aoun & Li 1989, Kitagawa 1994, Stroik 1996, Blight 1998).

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(46)   How did she get in touch with John?

        H*   H* L-L%
    She [F mailed him a MESsage].

(47)   After learning that bracelets are ideal birthday gifts,

        H*   H* L-L%
    he [F bought one for MARy].

Pre-nuclear accentuation does not necessarily invalidate the AS-approach. The first thing to do, obviously, is to factor out the conditions under which certain accentual configurations can be designated as focus-relevant. Here we draw on a discussion by Beckman (1996) which is compatible with the AS-approach.

Beckman (1996) re-considers the examples in (48) originally discussed by Selkirk (1984). According to Selkirk both sentences are compatible with a sentential focus interpretation: in (48a) the direct object the book is construable from the discourse and therefore deaccented (e.g., as an answer to "What did she do with the book?"), in (48b) the direct object is "new" to the discourse and has to be accented. With respect to (48a) Beckman comments "I have never found a speaker who can produce such a long pre-nuclear stretch without an accent either on sent or book" (p. 53). She suggests that the two examples differ in phrasing (or possibly in accent type) and not in the presence or absence of an earlier accent. Specifically, she suggests that for (48a) a "flat hat pattern" would be an appropriate accentual pattern, that is, a configuration in which the nuclear accent on Mary is preceded by a "peak accent" on either the verb or the direct object.

(48)   a.   [F She sent the book to MARy]

      b.   [F She sent a BOOK to MARy]

On the other hand, (48b), which has two F-marked objects, could be chuncked into two intermediate phrases (i.e., an H* L- sequence on <u>a book</u>) or as one intermediate phrase with a complex L+H* nuclear accent. The phonological articulations Beckman suggests can be represented as in (49).

(49)   [F She sent a BOOK   to MARy]

       a.   (L+)H* L-   (L+)H* L-   →two ip's

       b.   (L+)H*   L+H*   L-   → one ip

An interesting part of Beckman's approach, if we understand her correctly, is that she gives phonological content to Gussenhoven's notion of focus domain by identifying it with the intermediate phrase. Like the proponents of the AS-approach (Selkirk 1984, Gussenhoven 1984), she assumes that main prominence within the intermediate phrase is determined by the syntactic focus rules (i.e. the rules of F-projection). Nevertheless, she argues against the view that a focus domain necessarily have only one single pitch accent. This is captured by the "constraint" in (50):

(50)   "when the encoding of focus specifies only that there be a single pitch accent late in a phrase, speakers tend to place at least one more pitch accent on an earlier heavy syllable" (p. 31).

Consequently, the domain of F-projection is the intermediate phrase (for related proposals see also Ladd 1996 and Schaefer 1997). The pitch accent specified by the focus rules is designated as the <u>nuclear</u> accent of the phrase. H* tones in a "flat hat pattern", for example, are excluded from the array of focus relevant accents. For example, Beckman claims that there is a difference in the focus structure of the

sentences in (51) and (52). (51) has two nuclear (i.e. equally prominent) accents and it contrasts with (52) in which the pitch accent on <u>Anna</u> is not followed by a phrase accent. The "peak accent" in this example is nonfocal, according to Beckman. The same reasoning holds for pre-nuclear L* tones in the American English <u>yes</u>/<u>no</u>-question intonation: only the <u>nuclear</u> L* tone, the one followed by an abrupt rise in pitch (H-H%), can signal focus ambiguous readings.

        H* L-   H* L-L%
(51) [IP [ip ANna] [ip came with MANny]].

         H*   H* L-L%
(52)   [IP [ip Anna came with MANny]].

Judging from the discussion in her paper, only those types of pitch accents which give rise to salient alternations in pitch level are relevant for the interpretation of focus structure.[17] Here one can further include the complex L+H* tone (often associated with contrastive focus), but also configurations in which an H* tone is followed by a complex L+H*, as in the representation in (49b) above. Such a tonal configuration results in a salient fall in pitch after the peak accent.[18]

In the following section we turn to our main task. We test the validity of our syntactic analysis of triadic constructions against the background of the AS-approach to focus structure. Since the two internal arguments in the basic construction (OC) and in the derived construction (DOC) are represented in A-positions, the prediction is that each internal argument in both constructions should be able to integrate with the verb into one focus domain. The tests will take into account Beckman's constraint on early accenting. Certain problematic aspects of Beckman's proposal will be pointed out in due course.

3.3 Focus projection in triadic constructions

The safest way to test the integrative behaviour of arguments with the verb in triadic constructions are examples with an independently accented item preceding the construction or phrase to be tested. This allows us to circumvent Beckman's early accentuation constraint. Since external arguments have to be independently accented if they are focal and since they do not integrate with the verb into one focus domain, as discussed in section 3.1 above, the constructions to be considered will be embedded in a context in which one of the internal arguments is construable from the context. An accent on the remaining focal internal argument should then allow the verb to remain deaccented. We have already encountered an example of this kind in (44b) above. Another method is employed in Hoskins (1997), where the construction to be tested occurs in an embedded clause. The matrix verb then attracts a potential interfering utterance initial accent.

Consider the following examples of the DOC in which the indirect object is construable from the context and the direct object is F-marked. In (53b), an example modelled after Hoskins (1997), the context question specifies the embedded VP as the focus of the anwer. In (54b), and in the second sentence in (55), focus is sentential. In all these cases it is sufficient to accent the direct object in order to render the VP focused. Figure 4 shows a typical intonational contour for examples like (54b) and (55). The pitch accent on the focal subject is followed by an L- phrase accent, which marks an intermediate phrase boundary.

(53) a.   What did they do to make Mary happy?

     b.   I THINK they [F bought her a ROver].

(54) a.   Why is John drunk?

b.   [F Mary's MOTHer ordered him too many BEERS].

(55)   We knew that John wouldn't give up so easily.

<pre>
          L+H*   L-   H* L-
So [F our MAnager sent him a LETter] (in order to convince him to resign).
</pre>

If the direct object were demoted to the status of an adjunct, as proposed by Larson (1988), we would expect a focal accent on the verb. However, the only examples in which pre-nuclear accentuation seems more consistent among speakers are cases of contrastive

VP-focus, as in (56). The pitch accent on <u>wrote</u> in this case may be due to the speaker contrasting it with <u>leave</u>. Nevertheless, the accent on the verb is optional even in in these cases.

(56)   After John had finished work, did he leave the office?
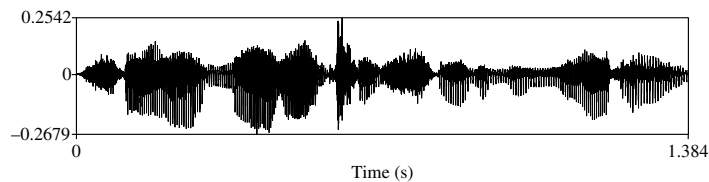
No, he WROTE JANE a LETter.
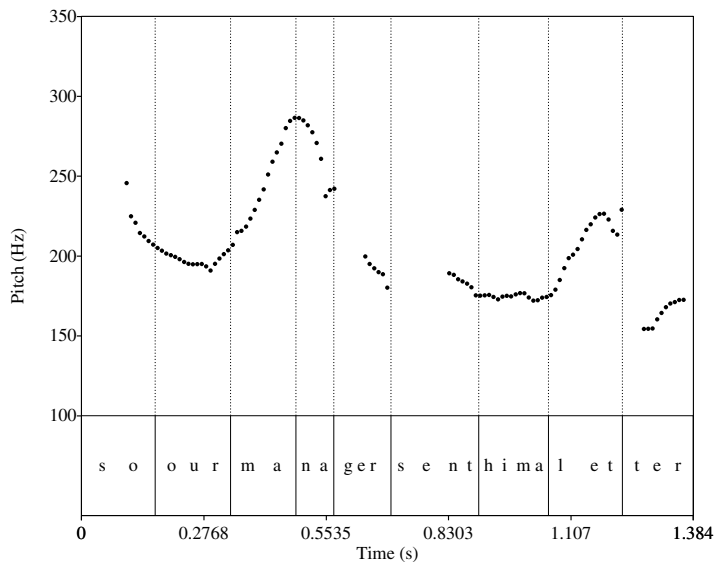
Figure 4.   F₀-contour of example (55)

In the OC the direct object shows the same integrative behaviour as in the DOC. In the following two examples the oblique object is construable from the context. In (57) the VP is focused, whereas in (58) the whole sentence. The ease with which the direct object integrates with the verb into one focus domain is expected in this case. There is no analysis we are aware of which would claim that this constituent is an adjunct.

(57)   We knew that John wouldn't give up so easily.

THAT's why we [_F sent a LETter to John] (in order to convince ...)

(58) a.   Why is John drunk?

           H*   L+H*   L- L%
      b.   [_IP [_ip MARy ordered too many BEERS for him]].

An additional accent occurs on the subject in (58) independently of its initial position in the utterance: the focus rules assign it to a separate focus domain. As the f₀-contour in Figure 5 shows, the subject need not be followed by a phrase accent. Recall Beckman's claim that the accentual sequence H* ... L+H* makes the first accent salient enough to be interpreted as focal. However, the absence of a phrase accent after the subject considerably weakens her proposal concerning the one-to-one correspondence between focus domains and intermediate phrases.[19]
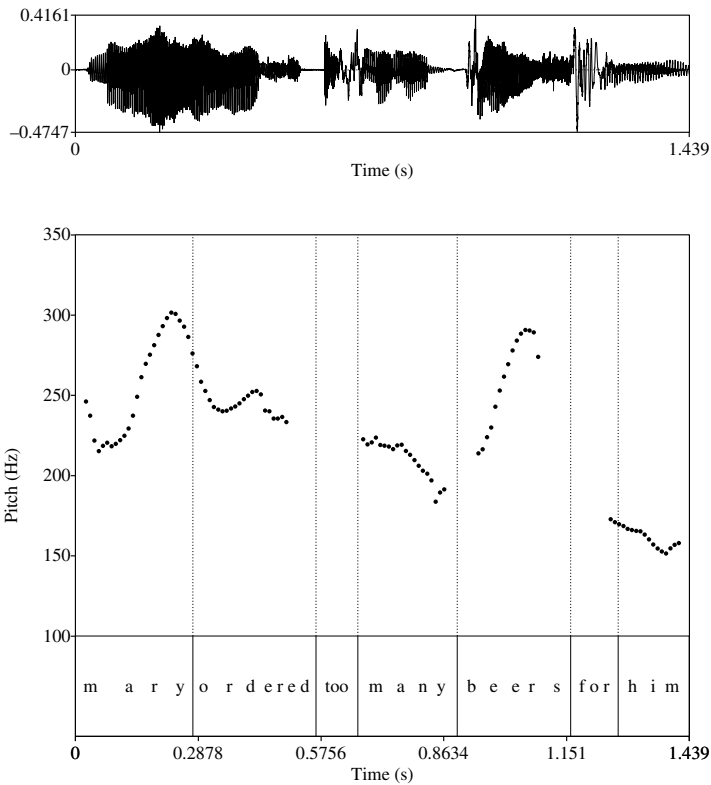
Figure 5.   F$_0$-contour of example (58)

We now show that the oblique argument behaves like a regular complement as far as F-projection is concerned. The examples are of the familiar sort. Consider (59), a case of sentential focus with a <u>for</u>-complement. The subject which is not given in the context is independently accented. The verb is deaccented because the accent on <u>Manny</u> is sufficient to signal its focal status. In (60) the oblique is headed by the formative <u>to</u>, and the construction exhibits a similar accentual pattern.

(59)   Can I have a piece of that delicious cake?

    H*   L+H* L-L%
No. MARy made it for MANny.

(60)   Why didn't John bring his bike along?

    H*   L-   H* L-L%
His MOTHer lent it to MeLINda.

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If the oblique object were a chômeur, as argued by Aoun & Li (1989), Kitagawa (1994), Hoekstra (1994) and Stroik (1996), we would expect the oblique construction to behave like passive sentences in wide focus contexts. The by-phrase in the passive is a syntactic adjunct, and the AS-approach predicts that it cannot integrate with the verb into one focus domain. This prediction is borne out: a typical intonational contour for passive sentences with VP-focus like (61) and (62) is given in Figure 6 below. The by-phrase, like VP-adjuncts generally (cf. Winkler 1997), is set off in a separate intermediate phrase.

(61)   What happened to John?

          He was arRESted by the poLICE.

(62)   When we arrived at the manor house, we found it in ruins.

$$\text{H*} \qquad \text{L-} \qquad \text{H*} \quad \text{L-L\%}$$
[$_{IP}$ [$_{ip}$ It had been DEVastated] [$_{ip}$ by the VILlagers]].

If there is an accentable (promoted) argument in the clause, the accent goes on the argument and the verb is not accented. This is illustrated in (63) and (64).

(63)   What happened yesterday?

          JOHN was arrested by the poLICE.

(64)   Any news from the NATO headquarters?

      a.   The REbels have been captured.

      b.   The MINE fields have been cleared.

It is obvious that the analysis of the OC we endorse in this paper is supported from a focus-theoretical point of view. Either the direct object or the oblique object,

irrespective if it is a goal or a beneficiary, can form a focus domain with the verb. If the oblique were an adjunct we would expect a focal accent on the verb in the examples (59) and (60) above. Given the discussion so far, it is hardly surprising when a well-performing speaker needs only one single accent to signal a wide focus in the OC. The question in (65) requires a VP-focus in the answer and a single "fall" on <u>Mary</u> is sufficient, as shown by the f_0-contour in Figure 7.

(65)   What did they do with the bracelet?

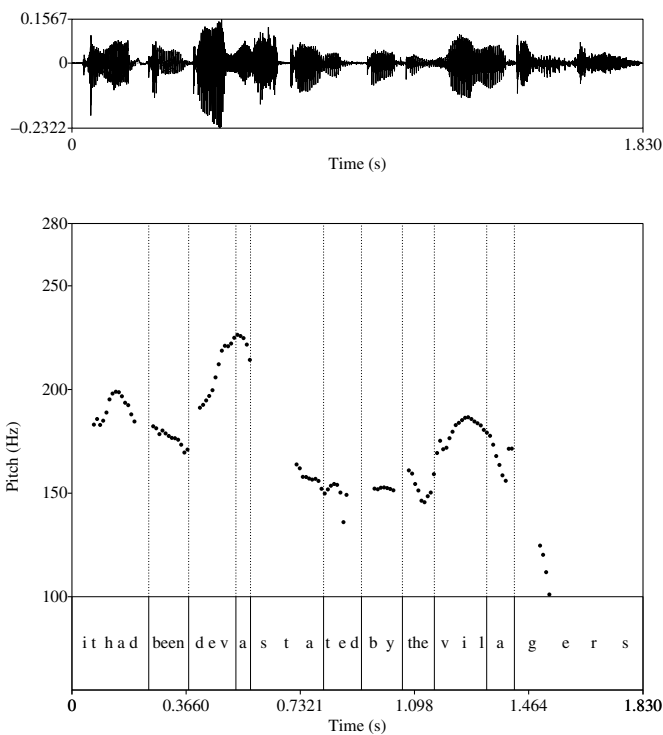   H* L-L%
             They gave it to MARy.
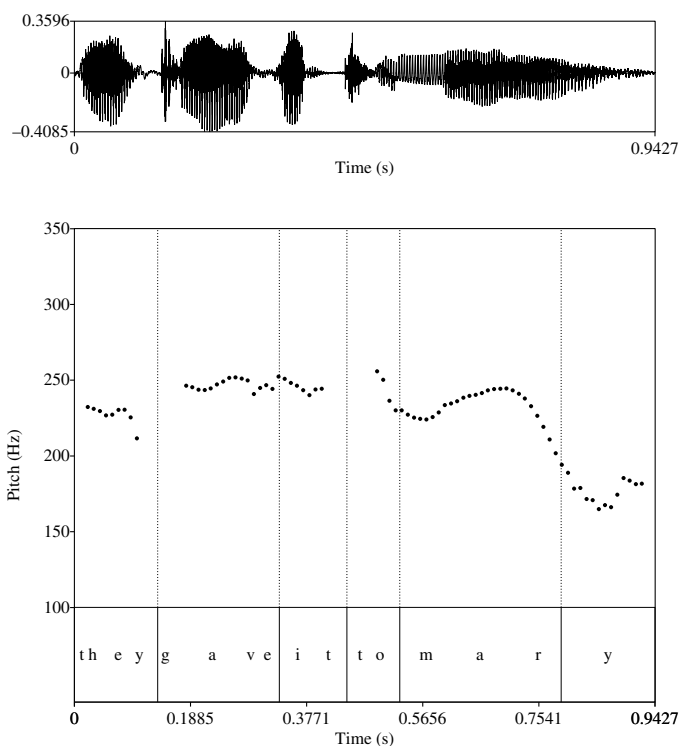

Figure 6.   <u>F_0-contour of example (62)</u>

Figure 7.   F$_0$-contour of example (65)

3.4   The problem of indirect objects

F-projection is not possible if the indirect object is the only accented constituent in the DOC.[20] This can be shown with the possible questions a sentence like (66) can answer. While it can answer (67a), (67b) and (67d) with the addition of appropriate accents on the F-marked arguments, it cannot be a response to (67c). According to the rules of prominence distribution outlined above, a sole accent on the indirect object should allow a VP-focus reading. However, the indirect object in this construction can only be narrowly focused.[21]

(66)   John gave Mary the old bike.

(67) a.   What happened?

      b.   What did John do?

      c.   What did John do with the old bike?

d. Who did John give the old bike to?

Admittedly, judgements are subtle regarding F-projection in the DOC if only the indirect object is prominent. In a VP-focus context one has to construe only the verb and the indirect object as F-marked, while the direct object must be "given" in the context and included in the larger VP-focus. Consider (68). This example is unacceptable because the indirect object and the verb are F-marked in the matrix clause and VP-focus has to be signalled by only one accent on the indirect object. It is of course possible to focus the indirect object narrowly, as in (69), if it is presupposed that John gave the bracelet to someone.

(68) # After learning that bracelets are ideal birthday gifts, he [F bought MARy a bracelet].

(69) Although Jane is John's girl-friend, he gave [F MARy] the bracelet.

The examples in (70) below are all unacceptable on the reading in which <u>the plants</u>, <u>the statement</u>, <u>the article</u> strictly refer to the same entities referred to by <u>the tea leaves</u>, <u>the declaration</u>, and <u>the paper</u> respectively. Compare the examples in (70) to those in (71), where the OC is employed and which are all acceptable. In (71) the nuclear accent goes on the oblique argument. The acceptability judgements in these two sets of examples supports our position that what is at stake here is prominence marking in wide focus contexts.

(70) a. # The farmers dry the tea leaves in the sun [F before they send Earl GREY the plants].

b. #The officer examined the spy's declaration thoroughly [F before he wired the GENeral the statement].

c. #John had been working on the paper for several months [F when he decided to mail MeLINda the article].

(71) a. The farmers dry the tea leaves in the sun before they send the plants to Earl GREY.

b. The officer examined the spy's declaration thoroughly before he wired the statement to the GENeral.

c. John had been working on the paper for several months when he decided to mail the article to MeLINda.

A wide focus reading in the DOC is only possible if the prominence rules can specify the direct object as prominent, as discussed in section 3.3, or if both objects are construable from the context and the verb is accented by default, as in (72).

(72) I've been told Mary was elected chairman. Was her friend present at the event?

No, [F she WIRED her friend the news].

If both internal arguments are "new" to the discourse in a wide focus context, they are associated with relatively salient accents. Figure 8 gives a typical intonational contour of a sentence like (73) with sentential focus.

(73) Why is your mother angry?

L+H*   L+H*   L+H*   L-
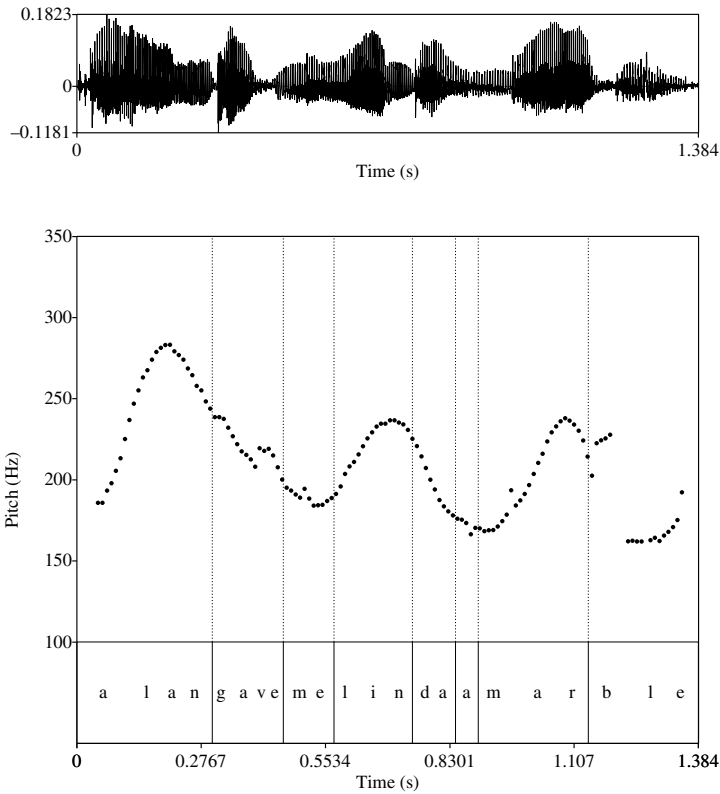[F ALAN gave MeLINda a MARble], and then she swallowed it.

Figure 8.   F$_0$-contour of example (73)

If our observations about F-projection in the DOC are correct, then we can point out another problem with Beckman's proposal that the domain of F-projection is the intermediate phrase. Given the fact that only a prominent direct object in this construction can signal wide focus, irrespective of whether the indirect object is also F-marked and prominent, insertion of an ip boundary should not be possible between the verb and direct object. However, this is clearly possible if the objects are more complex, as in (74) and (75) uttered at normal speech rate.

(74)   After John had finished work, what did he do?

                        H*   L-   H*   L-L%
          [IP [ip He sold his NEIGHbour] [ip the old WARdrobe]].

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(75)   What did John do?

$$H^*\ \text{L-} \qquad\qquad H^*\ \text{L-L\%}$$
[IP [ip John gave MeLINda] [ip a bunch of ROses]].

Probably the only explicit treatment of the focal properties of the DOC can be found in Erteschik-Shir & Lappin (1983). They argue that an accented indirect object is subject to their rule of "Restrictive Stress", a rule which assigns primary stress to an element in an explicit disjunctive or conjunctive enumeration, or to an element for which the context provides a contrast set. The sentences in (76) are supposed to be covered by this rule.

Erteschik-Shir & Lappin (1983) argue that restrictive stress can fall on any constituent within the sentence, similar to stress assignment to a focused constituent for which no contrast set is established in the discourse. They propose that the focused material (or "dominant" material in their terms)[22] in these sentences is the whole set: "It seems to us that when restrictive stress is used, the speaker wishes to draw the attention of his/her hearer to the set which he/she specifies by assigning restrictive stress to constituents corresponding to the elements of this set." (p. 444).

(76) a.   John gave MARy a book.

     b.   John gave both MARy and SALly a book.

     c.   John wants to give either MARy or SALly a book.

We would like to challenge Erteschik-Shir & Lappin's position for two reasons. Although there is a preference for a contrastive reading if the indirect object is the only accented constituent in the DOC, we found that a presentational focus reading was not excluded by our informants. On the other hand, a restriction to contrastive focus would

assign the DOC to a special class of focusing devices like clefts or focus movement generally. This is an unexpected result in view of the fact that this construction does not "force" the indirect object into focus. On the contrary, there is a strong preference for using the DOC if the recipient/beneficiary is <u>defocused</u> (cf. the statistical evaluations in Thompson 1995 and Herriman 1995).

Consider (77). The context explicitly triggers a presentational focus in the response. Yet the example seems acceptable. In fact, the context seems to preclude the generation of a salient set of alternatives. This is shown by the unacceptability of specificational <u>it</u>-clefts in the same context (78). The interpretation of <u>it</u>-clefts is predominantly contrastive, as argued by Declerck (1984) and Drubig (1998).[23]

(77) A: I know that John has sold his old wardrobe, but I don't know to whom.

     B: He sold his NEIGHbour the wardrobe.

(78)   ?? It was his NEIGHbour that he sold the old wardrobe to.

The rules of focus projection in the approach of Drubig (1994), which we adopted in this paper, do not capture the exceptional behaviour of the indirect object. The HPP, which regulates the distribution of prominence in wide focus contexts, only refers to the internal vs. external argument/adjunct distinction. Under any current definition of external vs. internal argument, the indirect object necessarily counts as internal, irrespective of its analysis as a promoted object or as base-generated in a position c-commanding the direct object. Yet it behaves like an external argument or an adjunct with respect to F-projection. The specifier-complement distinction can also not be drawn upon in view of the now widely-accepted binary branching analysis of syntactic structure: at least one argument in any triadic construction is merged as a specifier into the derivation. If we made the focus projection rules sensitive to the specifier-

complement distinction, we would not be able to account for those cases in which F-projection is possible from a medial argument, as in the OC in (57) above. An appeal to the movement analysis of dative shift is also excluded as a reasonable explanation: typical cases of NP-movement (e.g., unaccusative and passive constructions) are unproblematic for the AS-approach. In the next section we argue that the restriction on focus projection in the DOC should be subsumed under a more general restriction on focus domain formation.

4.   A constraint on focus projection

We relate the restriction on F-projection in the DOC with a prominent indirect object to a more general restriction on dative shift. It is well-known that the DOC is restricted to animate indirect objects, more precisely to "prospective possessors" (cf. Gropen et al. 1989, Krifka to appear). So it is quite natural that considerable work has been devoted to the similarities between triadic constructions and possessive constructions (cf. Green 1974, den Dikken 1992, 1997, Hoekstra 1994, Harley 1995). Similar case-marking configurations and identical semantic relations between the arguments have led to proposals in which possessive constructions are derived in a way similar to the DOC.[24] Run-of-the-mill DOCs generally imply an alienable possession relation between the referent of the indirect object and the referent of the direct object (cf. 79), but also inalienable possession (80), locative predications (81), and experiencer readings (82) embedded under a causative component are replicated by the DOC.

(79) a.   He gave John a book.

      b.   John has a book.

(80) a. The operation gave Michael Jackson a child-like appearance.

      b. Michael Jackson has a child-like appearance.

(81) a. They allow each car three passengers.

      b. Each car has three passengers in it.

          (cf. There are three passengers in each car.)

(82) a. Drinking too much gave John a hangover.

      b. John has a hangover.

The main question an analysis of possessive constructions has to tackle is how these different readings come about given a lexically underspecified verb such as have. A favorite approach is to derive them from the structural configuration and independent semantic features. First, only alienable possession and the experiencer construction require an animate subject. On the other hand, alienable possession is the only construction that does not need a "link" between the two arguments. Belvin (1996) has argued that the main requirement for the interpretation of have as alienable possession is a volitional subject and control of the object (cf. also Guéron 1995 for a similar proposal). Noncontrol requires the aforementioned "link" into the complement: dependent nouns have an argument variable coindexed with the possessor (cf. Vergnaud & Zubizarreta 1992), whereas locative constructions need an overt pronominal link. Belvin's classification is given in a simplified manner in (i) through (iii).

(i)   [+ vol subj], [+ control]   (alienable possession, cf. 79b)

(ii) [+ vol subj], noncontrol   (inalienable possession / experiencer)

(83) a. John$_i$ has [green eyes (x_i)]

      b. John$_i$ has [a cold (x_i)]

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(iii)   [- vol subj], noncontrol   (inalienable possession / locative)

(84) a.   The table has [three legs (x_i)]

      b.   The table$_i$ has a book *(on it$_i$).

We suggest that Belvin's classification also characterizes the relation between the internal arguments in the DOC. In fact, there is direct evidence for the control properties of indirect objects when the relation is alienable. Oehrle (1976) argues that the subject in an example like (85a) must bring the ball at least into the indirect object's sphere of physical control in order for the construction to be well-formed. The corresponding OC in (85b) does not impose such a restriction.

(85) a.   ??John threw the catcher the ball, but the throw went wide.

      b.   John threw the ball to the catcher, but the throw went wide.

In the remainder of this section we discuss the integrative behaviour of animate arguments in English and we argue that an additional condition has to supplement the prominence rules of the AS-approach. Concretely, we attribute the non-integrative behaviour of indirect objects and other animate arguments to the control properties associated with them. This is captured by the following restriction on focus domain formation:

(86) A control argument resists merger with the predicate into one focus domain.

For the present discussion we adopt the definition of control proposed by Authier & Reed (1991). They define control as "the possibility of cancelling what is denoted by the predicate if the subject of this predicate decides to stop doing it" (p. 202). This

definition can be extended to cover alienable possession: alienable possession is the possibility of the possessor to cancel the relation that holds between him/her and the possessee. Since the notion of control is not widely accepted in formal grammar, we digress from our main topic in order to motivate our choice of the term.

The grammatical relevance of the feature [+control] is motivated by the fact that this feature is grammaticalized in so-called active languages (Klimov 1974), which are also known as agent-patient languages (Dahlstrom 1983). Representatives of active languages are many Amerindian languages (according to Klimov the Athapaskan, Siouan, Muskogean families, and the South American Gupi-Tuarani family have active typology), but they are also found in other parts of the world, such as the Austronesian language Acehnese (Durie 1987) and probably also the Caucasian language Tsova-Tush (Holisky 1987).

Just as the telic/atelic distinction forms the semantic basis for intransitive split (i.e. unaccusative/unergative split, cf. the discussion below) in languages like English, Italian and Dutch, in active language it is agentivity or volitionality that determines the classification of verbs into active vs. stative verbs. The Choctaw (Muskogean) examples in (87), from Dahlstrom (1983: 83), illustrate a typical paradigm. The person markers on the verb are distinguished for patient (subject of intransitive-stative verb and object of transitive verb) and agent (subject of transitive and intransitive-active verb).[25]

(87) a.   či - pĩ:sa - li - h

2PAT see   1AG   PRES

'I see you.'

b. či - (y)abi:ka - h

2PAT be sick PRES

'You are sick.'

c. iš - iya - h

2AG go PRES

'You are going.'

"Active" marking is not restricted to typologically active languages, but can be found in certain constructions in other languages too. Constructions which have been documented in the literature as being sensitive to [+control] are intransitive sentences and causative constructions. One such language is Urdu which has a split-ergative system: the ergative system is employed with perfective aspect, and the accusative system in the present tense. As expected from a typical ergative paradigm, Urdu should mark subjects of intransitive verbs with nominative/absolutive case in the perfective aspect. However, with a series of monadic verbs an alternation between nominative and ergative is observed, as in the examples (88a) and (88b) from Butt & King (1991: 33). Butt & King argue that the ergative case marker "denotes conscious choice on the part of the agent" in (88b). Similar observations can be found in Tuite et al. (1985) who argue that the ergative expresses "purposivity", whereas nominative marking is neutral in this respect.[26]

(88) a. anjum royii

Anjum-NOM cry-PERF

'Anjum cried.'

b. anjum-ne royaa

Anjum-ERG cry-PERF

'Anjum cried (on purpose).'

In causative constructions "active" marking is relatively wide-spread and is typically manifested in terms of case alternations. In fact, Authier & Reed's definition of control was developed on the basis of an accusative/dative alternation on clitical causees in certain French dialects spoken in the Languedoc-Roussillion region (southwestern France) and in the province of Québec (Canada). Consider the examples in (89). Authier & Reed argue that (89b), which contains the dative clitic, signals control on the part of the embedded subject over the action denoted by the embedded predicate. (89a), which contains the accusative clitic, suggests a lack of control on the part of the embedded subject "so that it is understood that the subject was overcome by an uncontrollable urge to complain, an urge triggered by the matrix subject" (1991: 199). They also show that the dative clitic is systematically excluded if unaccusative verbs are embedded under the causative, as in (90b), but not with embedded unergatives, as in (90a). This is expected if control is associated with external arguments.

(89) a.   Ça   l' a   fait   récriminer de plus belle.
           that him (acc)   made   complain   even more
           'This made him complain even more.'

      b.   Ça   lui   a fait   récriminer de plus belle.
           that him (dat)   made   complain   even more
           'This made him complain even more.'

(90) a.   Ça lui a fait accélérer/patienter/hésiter/déchanter.
           'This made him(dat) accelerate/wait/hesitate/pipe down.'

      b.   *Ça lui a fait sécher/grossir/noircir/augmenter/couler.
           'This made him/it(dat) dry up/fatten/blacken/increase/sink.'

Different case markings of the causee in causative constructions generally correlate with what is known as indirect ([+control]) vs. direct causation (noncontrol), permissive vs. coercive readings, and the case patterns employed often depend on the case inventory of particular languages. Japanese, for example, exhibits an alternation between dative ([+control]) and accusative (noncontrol) (Comrie 1981), Urdu has an alternation between instrumental [+control] and objective (noncontrol) (cf. the re-evaluation of Butt's 1997 data in Wunderlich & Lakämper 1999), while Korean even allows a three-way distinction accusative/dative/instrumental with instrumental correlating with highest control properties on the part of the causee (DeSimone 1997).

Having established that a [+control] feature is independently motivated from a crosslinguistic perspective, we claim that the accentual integration of certain arguments with the verb is sensitive to control properties of the argument. This was formulated in the restriction on focus domains in (86) above. We maintain that (86) does not replace the rules of the argument structural approach, but acts as an independent restriction. It is motivated by examples which defy the HPP. One case is the DOC, in which the indirect object has more properties of autonomy than the corresponding argument in the OC. Another case is a set of intransitive (and also transitive) sentences in which the verb is deaccented although the prominence rules would predict that it be assigned the nuclear accent. The deaccentuation of the verb in these cases (to be discussed below) is motivated by <u>lack</u> of control on the part of the subject argument. Since the restriction in (86) only addresses animate arguments, irrespective of whether they are internal or external, it does not replace the rules of the AS-approach.[27] Note that the external/internal argument distinction is at issue in the following examples, in which the "subjects" are inanimate and cannot in any intuitive way control the eventuality expressed by the predicate. In (91) the subject is causative and it is merged as the

specifier of an additional verbal head. The context requires sentential focus in the answer and both the subject and the verb are accented. However, in (92) the verb is unaccusative and the most natural way to pronounce this sentence is with one single accent on <u>plane</u>.

(91)   Your glasses are broken. What happened to them?

   Grannie's BUTtocks CRUNCHED them.

(92)   What happened to the Empire State Building?

   A PLANE crashed into it.

The correlation of accentual patterns with control properties of arguments was first discussed by Faber (1987). Although his discussion is restricted to intransitive sentences, we think his paper is important in that it points out some crucial differences when there is a choice in the accentuation of the verb. He notes that in wide focus contexts with human agentive subjects the verb cannot be deaccented even if the activity denoted by the predicate is predictable, as in (93). If the subject is an animal, the verb may be deaccented. He claims that the difference between (94a) and (94b) is that the former involves a purposeful activity, while in the latter the barking is mere noise.

(93)   Its just the SECretary TYPing.

(94)   a.   My DOG BARKED.

   b.   My DOG barked.

Accentual integration of a human subject and an intransitive verb is possible if the event denoted by the predicate is not wilfully performed, as in (95a) and (95b), where the

vicar might not be looking at anything particular or the children are not listening purposefully to something (cf. 95c).

(95)   a.   Not here, darling! That VICAR's looking!

        b.   Sssh! The CHILdren're listening!   (= The CHILdren'll hear)

        c.   Sssh! The CHILdren're LISTening! (i.e. to the radio)

That there can be a choice in the accentuation of sentences with intransitive verbs is also illustrated in (96). Faber points out that (96a) would seem appropriate if the father's feelings or prejudices are involved, whereas in (96b) the father is seen to perform a specific act, such as putting in a formal complaint during the ceremony.

(96)   a.   (She was quite a clever woman as a matter of fact. I wonder why she

                never went to University.) Her FAther objected.

        b.   (I was told that Priscilla's wedding service stopped rather abruptly -

                What on earth happened?) Her FAther obJECted.

Although it is tempting to find a structural solution for examples like (96) that would conform to the rules of the AS-approach (e.g., in terms of an unergative/unaccusative analysis), similar accentual patterns also occur in examples in which the verb is uncontroversially unergative or transitive and the distinct accentual patterns depend on whether the subject is an animal/baby or human. The examples in (97) from Gussenhoven (1992) show that a single accent on the subject of a transitive verb and on the subject of the unergative embedded under the perception verb <u>hear</u> allows a wide focus reading.[28] Yet the same accentual pattern fails to yield a wide focus reading if the

subject is a human in control of the eventuality denoted by the predicate: both the argument and the verb need an accent. Cf. (98) through (100).

(97)   Where's the canary?

    a.   The CAT's killed it.

    b.   I heard a BIRD sing.

(98)   Where's the canary?

    a.   ALAN's KILLED it.

    b.   #ALAN's killed it.

(99)   Why did you stop talking?

    #I heard my NEIGHbour sing.

(100)   Why did you stop talking?

    a.   I heard the BAby crying.

    b.   I HEARD MARy CRYing.

Typical intonational contours for examples like (97b) and (98a) can be seen in Figure 9 and Figure 10 respectively. In Figure 9 there is only one focal accent on <u>bird</u>, an H* tone followed by an L- phrase accent, whereas in Figure 10 the subject and predicate belong to different intermediate phrases.
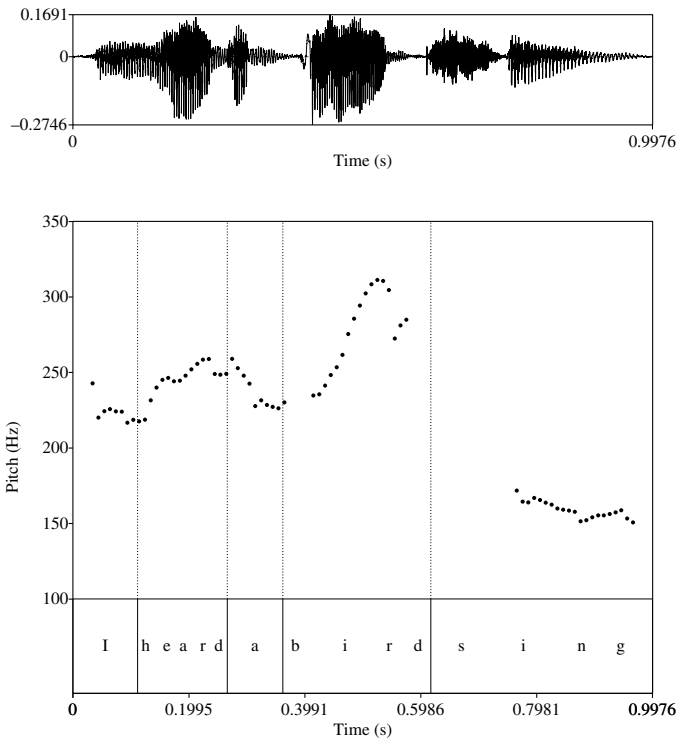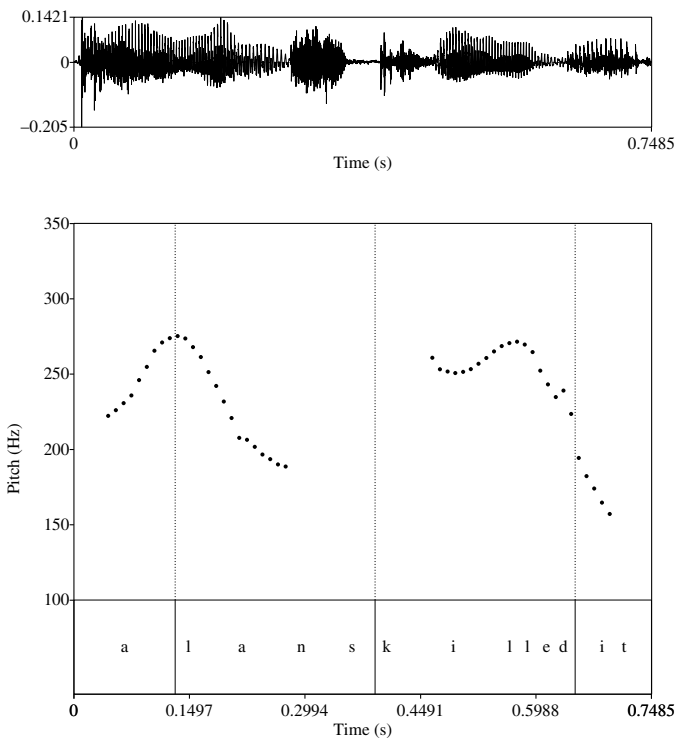
Figure 9.   F$_0$-contour of example (97b)

Figure 10. F$_0$-contour of example (98a)

We have seen that a wide focus is in principle possible if the external argument bears the nuclear accent, a situation that defies the rules of the AS-approach. We concur with Faber (1987) that volitionality (<u>control</u> in our terms) is the determining factor. A human referent of an external argument generally has control over the event expressed by an unergative or transitive predicate in the sense that (s)he can cancel this event at free will. A cat killing a small bird, a bird singing or a dog barking can be viewed as events which are not deliberate. This view cannot be taken of a person killing a bird, singing, etc. It is significant that the accentual patterns in (97), (98a) and (100) are "normal" patterns. They are not due to any contextual manipulation. Consequently, what our restriction on focus domain formation actually addresses is not the behaviour of external arguments in wide focus context (this is captured by the HPP anyway), but the possibility of deaccenting the verb if the sentence implicates <u>lack</u> of control on the part of the subject argument. The non-integrativity of indirect objects in the DOC is the converse process. The prominence rules predict that focus spreading should be possible if the indirect object is prominent, but its higher control properties, which distinguishes it from the oblique object in the OC, are responsible for this exceptional behaviour.

One could try to approach the examples discussed so far from a different perspective and eliminate our restriction on focus domain formation in the following way: an external argument in the intransitive case is demoted to the status of an object, whereas in triadic constructions an oblique object is promoted to the status of an (embedded) subject. Since subjects generally have (weak) topic properties, a non-integrative accent on the indirect object is expected.

"Demotion to object" for the intransitive cases has already been proposed in the literature. Drubig (1992), for example, suggests that unergative verbs which occur in subject-prominent sentences be reanalyzed as unaccusative. More recently, Lambrecht

& Polinsky (1997) argue that crosslinguistic encoding of sentence focus (SF, i.e. thetic sentences in the terminology of Kuroda 1972 and Sasse 1987) is a process of detopicalization implemented by "objectivizing" the subject argument. This is achieved by marking the subject argument with some or all of the grammatical features which are associated with the focal object in a predicate focus (PF) sentence (a PF sentence corresponds to a topic-comment articulation). This strategy includes deaccentuation of the predicate in English, subject-verb inversion in Romance, non-nominative case assignment in a range of languages (e.g., Genitive in Lithuanian) and suspension of subject-verb agreement. A second strategy is non-topic marking (subject/nominative marking) in languages with topic morphology like Japanese and Korean.

There are however serious reasons which prevent us from accepting these proposals for the examples under discussion.[29] First, we would have to accept a topic-comment analysis of double accent patterns. In (101), repeated from above, an "aboutness" relation, which is one of the defining characteristics of topics (cf. Reinhart 1982), can only be construed with the pronominal object, not with the subject. On the natural assumption that a topic (the subject in this case) cannot at the same time be F-marked (i.e., also be "new" to the discourse), this sentence can only be analyzed as an all-comment, or all-rheme, sentence. In terms of FBS, it is a case of sentential focus which contains a backgrounded constituent, namely the weak pronoun. It is instructive to see that a topic-prominent language like Romanian employs VS order in the same context, an order which occurs in presentational focus contexts (cf. Göbbel 1996). SV order, which would be compatible with a topic interpretation of the subject is unacceptable in this context. This is illustrated in (102).

(101)   Where's the canary?

         ALAN's KILLED it.

(102) a.   L-a   omorît   ALAN.

           CL.ACC-has   killed   Alan

           'Alan's killed it.'

      b.   #ALAN l-a OMORÎT.

Furthermore, the examples discussed by Faber suggest that an intransitive split (i.e.,
subject vs. object marking in intransitive sentences) be drawn along the
volitional/nonvolitional dimension. But a language like English, as well as other well-
studied languages like Italian or Dutch, have not grammaticalized an intransitive split
along these lines. Although activity verbs with volitional subjects are unergative, many
verbs with nonvolitional subjects (e.g., cough, sneeze, hiccough, cry, breathe, sleep,
snore)[30] and virtually all verbs describing sounds made by animals (e.g., chirp, bark,
meow, roar, neigh) appear as unergatives in Perlmutter's (1978) original classification.
It seems that the semantic basis for intransitive split in the languages under discussion is
Aktionsart (van Valin 1990, cf. also Tenny 1987 and Dowty 1991 for relevant
discussion). Whether the eventuality denoted by a verb is inherently bounded or not
determines its classification as unaccusative or unergative. This means that in those
cases in which a verb can shift class membership, the shift depends on whether the
event is construed as telic or atelic. The prototypical case are manner of motion verbs
(e.g., run, fly, jump, walk, swim), extensively discussed in the literature for languages
like Italian and Dutch, which shift class membership depending on the syntactic
configuration they occur in (i.e., whether they occur with complements that delimit an
inherently unbounded event). As the following Italian examples from van Valin (1990:
235) show, auxiliary selection (essere vs. avere) and ne-cliticization, two of the standard

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tests for the unaccusative/unergative distinction (cf. Burzio 1986, Hoekstra & Mulder 1990, among others),[31] are not sensitive to the adverbial <u>di proposito</u> 'on purpose', but to the presence vs. absence of a phrase that delimits the event denoted by the predicate.[32]

(103) a.   Luisa ha   corso   (di proposito)   nel parco.

          Luisa has   run   on purpose   in.the park

          'Luisa ran in the park (on purpose).'

     b.   Luisa è   corsa (di proposito)   a casa.

          Luisa is   run   on purpose   to home

          'Luisa ran home (on purpose).'

(104)   Ne   sono corsi tre   (di proposito)   a casa.

          of them   are   run   three on purpose   to home

          'Three of them ran home (on purpose).'

5.   Conclusion

In this paper we have investigated the information structure of the "dative alternation" from the perspective of the argument structural approach. We have shown that a syntactic analysis along the lines of Baker (1997) is largely supported from a focus-theoretical point of view. On the other hand, the non-integrativity of the indirect object in wide focus contexts poses a problem for current formulations of the focus rules. Drawing on insights by Faber (1987) about the role of accentuation in intransitive sentences, we formulated a restriction on focus domain formation which crucially relies on the control properties of arguments. Certain accentual patterns in sentences with intransitive verbs which cannot be attributed to the unergative/unaccusative distinction

and the non-integrativity of the indirect object in the double object construction are thus seen as a reflex of "active-inactive" marking.

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[1] For a recent proposal of the prosody - argument structure relation see Zubizarreta (1998). For a detailed critique of this approach see Winkler & Göbbel (2000).

[2] A third trend in the description of triadic constructions is to derive the DOC in a way similar to possessor raising constructions by raising the indirect object (the possessor) from within the projection of the direct object (the possessum). Representatives of this approach are Johnson (1991) and Runner (1995).

[3] Baker (1997), following Travis (1991), assumes that the functional projection separating the two VP-shells is an AspP. However, AspPs have also been motivated for the position of different kinds of aspectual adverbs which occur higher than VP_1 (cf. Laenzlinger 1998). Since the functional identity of the projection separating the two VP projections does not bear on our arguments here, FP is a convenient notation.

[4] We adopt a standard minimalist view of case checking. Structural case (nominative, objective, dative, genitive) is licensed in the syntax by association with a functional head. Finite T^0 checks nominative, $\underline{v}$ and P objective case. D^0 and C^0 may also check case in certain languages: D^0 checks dative on possessors in Hungarian (Szabolsci 1994), C^0 checks genitive on subjects of participial constructions in Finnish (Kiparsky 1998). Since $\underline{v}$ assigns objective case to the indirect object in the DOC and to the direct object in the OC, the trigger for movement to FP cannot be case. We assume that the trigger is a strong nominal feature like the EPP in matrix contexts: this accounts for the rigidity of word order in the English DOC (cf. *John gave a melon Melinda). The substructure dominated by FP in (2) and (3) essentially corresponds to a (small) clausal constituent.

[5] This was already observed by Kuno (1973: 380), who marks similar examples with two question marks.

[6] Dative shift in (8c) is also excluded because it is a case of improper movement, movement from an A'-position to an A-position.

[7] Cf. also Hoekstra (1994), Kiparsky (1994) and Blight (1998) for related views on the basic and derived structure of dative shift. A VP-internal passive has also been proposed by Zubizarreta (1994) for the derivation of double complementation structures in Spanish. Dryer (1986) develops a similar analysis whithin the framework of Relational Grammar, but points out that a for-benefactive (e.g. 'bake a pie for Mary') cannot be analyzed as "chômeur", an issue not addressed by the other authors mentioned here.

[8] Note that this test tells an interesting story about argument alternations of the spray/load type. Contrary to general assumptions, the with-alternant is an adjunct, not an argument. This is also supported by the extraction test in (ii).

(i)   a.   paint-sprayed walls   [cf. spray the walls with paint]

        b.   * wall-sprayed paint   [cf. spray paint on the walls]

(ii)   a.   ? On which wall did he wonder whether John sprayed the paint?

        b.   * With what colour paint did he wonder whether John sprayed the walls?

[9] It seems that only DPs headed by to are exceptional in this respect. Emonds (1993: 219) provides examples like (i) in order to show that other theta-related prepositions prevent their objects from c-commanding an anaphor.

(i)   a.   *Did he argue with John and Mary about each other/themselves?

        b.   *Mary spoke of Bill and John to each other/themselves.

        c.   *Strangely, the company relies on my brothers for each other's expenses.

Note that the oblique in (33) has to be in a position in which it can c-command the adverbial. In Göbbel (1997) it is argued that the oblique can scramble to a higher position and from thence c-command the adverbial. This could also be the source of the ambiguity of quantifier scope in this construction if the oblique comes to c-command the trace of the direct object. The possibility of scrambling may also explain why backward binding of an anaphor is possible in (13a) above.

[10] Cf. Emonds (1985) and den Dikken (1992) for the status of the Prt as an intransitive preposition. For arguments as to the predicative nature of the Prt see Guéron (1990), Aarts (1992) and Svenonius (1994).

      Den Dikken (1992) and Mulder (1992) also argue that triadic constructions feature an empty Prt. In fact, they argue for an empty Prt in the representation of both the DOC and the OC. We do not see any compelling reason for extending this analysis to the DOC as well. Rather we believe that an empty Prt need only be inserted on the recipient/experiencer reading of the oblique object of verbs like give, hand, show, etc. A lexical preposition which induces a locative/directional reading is sufficient to license the embedded diadic structure. It is also not clear why a Prt should figure in the representation of non–alternating verbs, especially those of Romance origin (donate, introduce, suggest, etc.), since these verbs do not even combine with overt Prt's. Non–alternating verbs are also known to differ in terms of the binding configurations they allow, particularly the backward binding effects are absent (cf. Zubizarreta 1992). We suspect that only those cases in which the to-DP is of category KP are transparent for binding

purposes. A clear determination of the category of the <u>to</u>-phrase for all ditransitive verbs is difficult because some verbs may allow either a KP complement or a PP complement. For example, a verb like <u>send</u> is the prototypical ambiguous case: in dative languages like Romanian, German, Japanese, either a lexical preposition or dative case is compatible with the human goal argument. The <u>a</u>-DP in Spanish is also known to be categorially ambiguous (cf. Demonte 1995).

[11] We follow standard notation conventions and indicate focus-related prominence by capitalizing the accented syllable.

[12] Note that Drubig's approach is conceptually different from "pitch-accent first" models (Selkirk 1984, 1995, Rochemont 1986, Winkler 1997). Instead of computing focus structure from the distribution of prominence, prominence assignment is a function of the distribution of the F-feature.

[13] But see Drubig (2000) for a re-evaluation of the theory developed in Drubig (1994). Since we will not be concerned with focus movement in this paper we will not consider this issue further here.

[14] (44b) is not a direct answer to the question, but a possible one just in case the referent of the subject DP is known to the hearer (i.e., "unused" in the sense of Prince 1981).

[15] The accentuation and phrasing of contrastive topics is a separate issue. Cf. Steedman (1991), Pierrehumbert & Hirschberg (1990) and Beckman (1996) for discussion.

[16] Larson (1988) seems to be the only analysis in the GB literature in which the direct object in the DOC is a syntactic adjunct. Although this analysis is not viable for English (e.g., the full grammaticality of subextraction from this constituent clearly speaks against it), it cannot be excluded on universal grounds. Kulonen (1999) argues that in the Ob-Ugric languages Vogul and Ostyak the dative indirect object can be promoted to become the accusative object while at the same time the theme is marked with instrumental-instructive case. This process seems obligatory if the recipient is "known" and definite and the theme argument is indefinite. Kulonen explicitly relates this alternation to the passive. Baker (1988) reports a similar alternation for Chamorro (Austronesian).

[17] A similar situation seems to obtain in German. Günther et al. (1999: 30f.) argue that pre-nuclear prominence is associated with an L+H* accent if it occurs on an F-marked word (eg., in the wide focus context in (i)). Not unlike Beckman, they ignore the H* tone on the "given" argument in (ii) for the computation of accentual prominence with respect to focus structure.

(i)   What has the manager done?

	L+H*	L+H*	
	[F den MImen	die MAHnung	geschickt].
Er hat			
he has	the mimes	the warning	sent

(ii)   What has the manager sent to the mimes?

	H*	L+H*	
	den Mimen	[F die MAHnung]	geschickt.
Er hat			
he has	the mimes	the warning	sent

[18] This configuration has been analyzed as "partial linking" of accents in Gussenhoven (1984) and Féry (1993).

[19] The same remark holds for example (59) below, where the motivation for two focus domains is much stronger because the subject is presentationally focused and the oblique argument (or probably the whole VP) is contrastively focused.

[20] This restriction has also been observed by Erteschik-Shir & Lappin (1983), Selkirk (1984), Rochemont (1986) and Oehrle (1990).

[21] The acceptability of (66) as an answer to (67c) does not improve if an additional accent is placed on the verb, as in (i).

(i)   What did John do with the old bike?

     # John GAVE MARy the old bike.

[22] Erteschik-Shir has employed the term dominance in most of her work for what we called presentational focus in section 3.1. In Erteschik-Shir (1997) dominance is replaced with focus and restrictive stress with restrictive focus.

[23] Narrow focus on the indirect object is also possible in answers to wh-questions, as in (i). Although the focus in the answer to a wh-question may be ambiguous between a presentational and contrastive interpretation, contrastive focus depends on the D-linked status of the wh-word (cf. Erteschik-Shir 1997, Drubig 1998). In the absence of any further context, focus in (i) is most likely presentational.

(i)   Who did he sell the old wardrobe to?

         He sold MeLINda the wardrobe.

[24] Unfortunately, we cannot discuss the highly interesting topic of the syntax of possessive constructions here. Particularly, the correspondence between have-possessive (Lat. habeo pecuniam 'I have money') and

the more wide-spread be+DAT (Lat. Mihi est pecunia 'to me is money') possessives has been a matter of lively debate during the last decade. We are in sympathy with those approaches which analyze possessive have as an "applied" construction, deriving it from the be+DAT construction by way of incorporation of a preposition (cf. Freeze 1992, Tellier 1994, Belvin & den Dikken 1997).

[25] The active paradigm differs from the classical ergative system which groups together subject of intransitive with object of transitive verb (absolute case) while marking the subject of transitive activity verbs with ergative case.

[26] Tuite et al. identify the class of verbs which may have either nominative or ergative subjects as a class from which no causative verbs are derived. This includes verbs which correspond to the English verbs sneeze, cough, scream, urinate, whisper, hesitate, stumble. Other verbs which belong to the same class do not occur with ergative subjects (verbs corresponding to English crawl, become dazed, flicker, sparkle, regret, lose one's wits). These verbs are either not compatible with a volitional subject or they are inherently atelic (i.e., incompatible with perfective aspect).

[27] Jacobs (1999) seeks to eliminate the syntactic focus rules by developing an analysis of F-projection in terms of Dowty's (1991) theory of proto-roles. Under this approach, only arguments with proto-patient properties can be integrated with the verb into one focus domain. His approach is still programmatic, as he himself admits, and it is unclear at the moment whether a semantic approach can cover all cases which have been explained in terms of syntactic rules.

[28] An alternative accentual pattern for (97a) is given in (i). This conforms to Faber's observation that with animals there is a choice. Cf. also Faber's examples in (ii) and (iii).

(i)   The CAT's KILLED it.

(ii)   a.   The DOG's farted.

       b.   The DOG's FARted.

(iii)   a. # MOLESworth farted.

       b.   MOLESworth FARted.

[29] There is a type sentences we have nothing to say about here. Sentences with unergative and transitive verbs, like (i) and (ii), which fit the mold of verbs of (dis)appearance, are generally subject-prominent. Examples of this type are probably good candidates for Drubig's reanalysis rule or Lambrecht & Polinsky's "objectivizing" strategy. Jacobs (1999) has shown that subextraction from the subject in

similar sentences in German is grammatical even if it occurs with a (pronominal) direct object, cf. his examples in (iii).

(i)   MOTHer's called.

(ii)   There used to be a hut on top of the hill. What happened to it?

           Last year's torNAdo swept it away.

(iii) a.   von dem   gerade   [ein Freund t_i]   angerufen   hat.

           of whom   just   a friend   called   has

      b.   ? von dem   gerade   [ein Freund t_i] uns   angerufen   hat.

           of whom   just   a friend   us   called   has

[30] Some of these verbs may have volitional subjects, e.g. one can cough, sneeze, cry on purpose.

[31] The auxiliary 'be' in perfect tenses in Italian and Dutch groups together unaccusative constructions with passive constructions, whereas ne-cliticization groups together the argument of an unaccusative verb with the direct object of a transitive verb.

[32] Ne-cliticization with verbs of movement is ungrammatical in the absence of any delimiting complement. The example in (i) is borrowed from Hoekstra & Mulder (1990: 4).

(i)   * Ne   hanno corso/i   due.

       of-them   have   run±AGR   two