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"RESTRUCTURING" AND IMPLICATIVE/NON-IMPLICATIVE VERB SENTENCES*

1 INTRODUCTION

This paper focuses on the contrast between the two versions of English infinitival constructions: implicatives and non-implicatives. In the pioneering work of Karttunen (1971), he states that sentences with implicative verbs as in (1a) imply the truth of the complements as in (1c), while those with non-implicative verbs as in (1b) do not imply the truth of their complements as in (1c):

(1) a. John managed to solve the problem.
b. John hoped to solve the problem.
c. John solved the problem.

The present paper will show that the implicative/non-implicative distinction is not a mere division among predicates and that it correlates with the difference in their event dependency and syntactic structures.

In this paper, first we argue that the distinction between implicative and non-implicative infinitives is associated with the division in their event dependency. We will observe that two events (i.e. the main clause event and the complement clause event) in sentences with implicative verbs, unlike those with non-implicative verbs, show temporal and spatial dependence. And this paper, adopting the notion of subordination, explores the mechanism of event dependence and states that the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." These observations will be supported from a typological view (cf. Ikegami 2000). Following this, we will argue that event dependence is due to event composition.

We will then go on to explore the syntactic structure of sentences with implicative

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verbs and those with non-implicative verbs. The present paper claims that implicative infinitives are restructuring configurations, lacking CP, TP, PRO properties. We propose that while a non-implicative verb selects a CP complement which is a non-restructuring configuration, an implicative verb selects a VP complement which is a restructuring configuration.

The article is organized as follows: in the next section, we will examine some previous analyses. In section 3 this paper investigates the event dependency of sentences with implicative verbs and non-implicative verbs. First, we observe that sentences with implicative verbs, unlike those with non-implicative verbs, show event dependence. Next exploring the mechanism of event dependence, we state that in sentences with implicative predicates, the predicates in question are subordinated and they function as a "modifier" rather than a "predicate." Then the present paper will assume that event dependence is due to event composition. In section 4, we explore the syntactic structure of sentences with implicative verbs and non-implicative verbs. This paper will observe that sentences with implicative verbs lack CP, TP, PRO properties and they select a VP complement which is a restructuring construction. Section 5 concludes this paper.

2 PREVIOUS ANALYSES

2.1 Karttunen (1971)

First let us outline Karttunen's (1971) definition of implicative verbs and non-implicative verbs. Karttunen states that verbs which take infinitive complements are divided into two groups: implicatives and non-implicatives. Let us consider the following sentences:

(2) a. John managed to solve the problem.
b. John solved the problem.

It seems certain that in asserting (2a), one commits oneself to the view that (2b) is true. Karttunen says that it would be inconsistent to assert (2a) unless one believed the proposition expressed by (2b). Next, let us examine the sentences below:

(3) a. John hoped to solve the problem.
b. John solved the problem.

The speaker who asserts (3a), in contrast, need not have any knowledge or belief concerning the truth of (3b). The sentence (3a) does not commit the speaker to any view about the truth of (3b).

Karttunen, in addition, considers these negative sentences:

(4) a. John didn't manage to solve the problem.
b. John didn't solve the problem.
(5) a. John didn't hope to solve the problem.
b. John didn't solve the problem.

If (4a) is true, it is not possible for John to have solved the problem; hence (4b) must be true. But in the case of (5), adding negation to the main sentence has no effect with regard to the truth of the complement.

Karttunen points out that there is an implication between a main sentence with a *manage*-type verb and the proposition embedded in it as a complement. If the sentence as a whole is true, then the complement must also be true. Added to this, if the sentence is false, the complement is also false. By using *v* for an arbitrary *manage*-type verb and *S* for the complement sentence, following Karttunen, we can roughly represent these relationships as in (6).

(6) a. v(S) ⊃ S 'v(S) is a sufficient condition for S.'
b. ~v(S) ⊃ ~S 'v(S) is a necessary condition for S.'

On the other hand, there is no such relationship if the main verb is *hope*, as illustrated in (3) and (5). Karttunen calls *manage*-type verbs implicative verbs and *hope*-type verbs non-implicative verbs.

Below is a sample of implicative and non-implicative type predicates.

(7) a. IMPLICATIVE
bother, care, condescend, conspire, contribute, dare, decline, deign, deserve, disdain, fail, get, happen[1], help, hesitate, manage, neglect, omit, presume, remember, scorn, serve, suffice, venture, volunteer, see fit, be careful, have the misfortune/sense, take the time/opportunity/trouble, take it upon oneself
b. NON-IMPLICATIVE
agree, arrange, assent, ask, attempt, choose[2], consent, contrive[3], decide, demand, endeavor, hope, intend, mean, need, offer, petition, plan,

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[1] The verb *happen* is often grouped into raising predicates, in that it hosts an expletive in the subject position.

(i) There happened to be a meeting yesterday.

Martin (1996), however, classifies the verb *happen* into control verbs because its embedded verb, like that in sentences with a control predicate, denotes a dynamic event (as opposed to stative event).

(ii) Romário happened to score in every game. (Martin 2001: 148)

We may say that the verb *happen* is ambiguous, but this paper limits the discussion to control predicates.

[2] Pesetsky (1992) classifies the verbs such as *choose*, *contrive* and *refuse* into a non-implicative group. The sentences with them, however, sometimes imply the truth of the complements. For detailed arguments, see section 3.5.

[3] See note 2.

prepare, promise, propose, refuse[4], request, resolve, seek, strive, struggle, swear, try, undertake, vow, want, be likely, be eager/ready, have in mind (cf. Karttunen 1971, Pesetsky 1992, Rudanko 1989)

We should note that though Karttunen catalogues the properties of implicative verbs and non-implicative verbs, he does not explicate what their differences of behavior derive from.

2.2 Givón (2001)

Givón (2001) argues that implicativity can be captured by temporal dependence of two events (i.e. the main clause event and the complement clause event). First examine the following complementation scale.

(8)

Semantic scale of verbs	Syntax of complement
a. She finished building the house	nominalized Comp
b. She managed to build the house c. She tried to build a house d. She had to build a house e. She wanted to build a house f. She planned to build a house g. She was able to build a house	Infinitive Comp
h. She knew how to build a house	how-to Comp
i. She wished that he would build a house	subjunctive Comp
j. She knew that he built a house	indir. quote Comp

(Givón 2001: 56)

According to Givón, the verbs at the top of the complementation scale (8a-b) are indeed implicative, but the relation between the two events also involves, beyond logical implication, temporal dependence. When the main verb is implicative, the two events are either co-temporal or tightly sequential. This argument is illustrated by the following (un)grammaticality of the temporally-dispersed sentences as in (9):

(9) a. *John managed to solve the problem next week.
b. John hoped to solve the problem next week. (Karttunen 1971: 346)

We shall return to this point, exploring some more data later in section 3.

Givón discusses further the systematic isomorphism between the semantic and syntactic dimensions of complementation. The stronger the semantic bond between

[4] See note 2.

the two events is, the more extensive the syntactic integration of the two clauses into a single complex clause will be. According to Givón, the syntax of complementation can be described in terms of four main syntactic coding devices as shown in (10):

(10) a. Co-lexicalization ('predicate-raising')
Attaching the two verbs together—main and complement—to form a single phonological word.
b. Case-marking and grammatical relations
The case-marking of the object of the main clause and the subject of the complement clause.
c. Finite verbal morphology
The finiteness status of the complement-verb morphology.
d. Inter-clausal gap
The separation—by subordinator morpheme or intonation break—between the main and subordinate clause. (Givón 2001: 59, 60)

We should note, however, that the difference between implicative verb sentences and non-implicative verb sentences cannot be captured by the four devices above because they have the same configurations: *NP-V-to-VP*. An obvious question to ask here is what their differences of event dependency as in (11) are attributed to.

(11) a. *John managed to solve the problem next week.
b. John hoped to solve the problem next week. (= (9))

The present paper discusses the function of the main predicates and, adopting the notion of subordination, states that two events in the sentences with implicative verbs are interpreted to be dependent because the main implicative predicate is subordinated and it functions as a "modifier" rather than a "predicate." This means that the subordination of the main predicates is an 'invisible' syntactic device which captures their event dependence.

2.3 Dixon (1991)

Dixon classifies verbal concepts into two classes: Primary and Secondary. Primary verbs are those directly referring to some activity or state, that is, they can make up a sentence by themselves with appropriate NPs filling the various semantic roles. Secondary verbs, in contrast, are those providing semantic modification of some other verb, with which they are in syntactic or morphological construction. According to Dixon, there are four different kinds of semantic (and syntactic) link between a Secondary verb and the verb it semantically modifies.

(12) a. Secondary-A types: MODALS and SEMI-MODALS, BEGINNING, TRYING, HURRYING, DARING
b. Secondary-B types: WANTING, POSTPONING

c. Secondary-C types: MAKING, HELPING
d. Secondary-D types: SEEM, MATTER

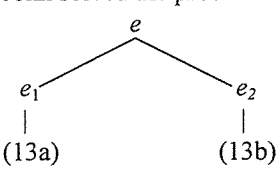
The relevant point to note here is that leaving aside Modals, Secondary verb constructions in English show a non-alignment between syntax and semantics. The Secondary verb is syntactically the main verb but from a semantic point of view it modifies the verb of the complement clause, which is the semantic focus of the sentence.

We can say that the relevant implicative verbs are classified into Secondary-A types and non-implicative verbs into Secondary-A types and Secondary-B types. Dixon's classification cannot, however, describe further characterization of implicative verbs and non-implicative verbs. Thus we need to propose a theory to describe the syntactic and semantic differences between them. In the next section, we will consider the evidence that the notion of 'Secondary verbs' is more appropriate to implicative verbs than to non-implicative verbs.

3 EVENT DEPENDENCY

In this section, first examining the tests concerning scopes, we observe that in sentences with implicative verbs two events are dependent temporally and spatially. Next in section 3.2 we will explore how the dependence is described. The present paper, adopting the notion of subordination, states that the events are interpreted to be dependent because the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." In the final section, we try to explain that event dependence observed in sentences with implicative verbs is due to event composition. The difference of their event dependency will be schematized as follows:

(13) a. John managed to solve the problem.
b. John solved the problem.
c.



(14) a. John hoped to solve the problem.
b. John solved the problem.
c.

3.1 Temporal and Spatial Dependency

In this section, we will examine event dependency in the sentences with implicative verbs and with non-implicative verbs. As pointed out by Karttunen, any time reference in the main clause with an implicative verb also, by implication, modifies the infinitive clause. For example, (15a) doesn't just imply (15b), but rather (15c):

(15) a. Yesterday, John managed to solve the problem.
b. John solved the problem.
c. John solved the problem yesterday. (Karttunen 1971: 346)

The contrast between implicatives and non-implicatives is clearly illustrated in the following sentences:

(16) a. *A week ago John managed to finish his assignment yesterday.
b. ?A week ago John hoped to finish his assignment yesterday.

While the main sentence with an implicative verb and the complement cannot contain conflicting temporal expressions as in (16a), nothing prevents different temporal adverbials from occurring in the sentence with a non-implicative predicate as in (16b).

According to Karttunen, what is said above about time adverbials can also be observed for locative expressions. (17a) doesn't just imply (17b), but rather (17c):

(17) a. On the sofa, John managed to sleep.
b. John slept.
c. John slept on the sofa.

As with temporal adverbials, the distinction between implicatives and non-implicatives is illustrated by the (un)grammaticality of sentences with locatively-dispersed adverbials as in (18).

(18) a. *On the sofa, John managed to sleep in the bed.
b. On the sofa, John decided to sleep in the bed. (Karttunen 1971: 347)

It is clear from these examples that in the sentences with implicative predicates adverbials necessarily modify the embedded verb and they cannot only modify the main verb. On the other hand, as indicated by grammaticality in (16b) and (18b), in sentences with non-implicative verbs the adverbs can modify each event respectively. From these data, we can say that in the sentences with implicative verbs, unlike in those with non-implicative verbs, two events are dependent temporally and spatially.

The dependence can also be observed in negative sentences. As we have seen in the previous section, by definition, the negation of a sentence with an implicative predicate implies the negation of its complement. For example, if (19a) is true, it is not possible for John to have solved the problem; hence (19b) must also be true.

(19) a. John didn't manage to solve the problem.
b. John didn't solve the problem. (Karttunen 1971: 343)

In the case of a non-implicative predicate such as *hope*, by contrast, adding negation to the main sentence has no effect at all with regard to the truth of the complement.

(20) a. John didn't hope to solve the problem.
b. John didn't solve the problem. (ibid.)

These contrasts are clearly illustrated by the following sentences with a Negative Polarity Item (henceforth NPI) *budge an inch.* As shown in (21), the NPI *budge an inch* must be licensed by NPI licensers such as *not.*

(21) a. *John budged an inch.
b. John didn't budge an inch.

Let us compare the sentence with the implicative verb (22) to the sentence with the non-implicative verb (23):

(22) a. *John managed to budge an inch.
b. John didn't manage to budge an inch.
(23) a. *John hoped to budge an inch.
b. *John didn't hope to budge an inch.

In (22b), the embedded phrase *budge an inch* is licensed by the licenser *not* in the matrix clause. In (23b), by contrast, it is not licensed by the licenser in the matrix clause. These scope differences suggest that in sentences with implicative verbs, unlike those with non-implicative verbs, two events are dependent.

An obvious question that arises here is how the two events are dependent in sentences with implicative predicates. In the next section 3.2, we attempt to describe this mechanism.

3.2 Subordination

3.2.1 Subordination Before moving on to the main task, let us examine the following sentences with a manner-of-motion verb. The notion of subordination will be important for the discussion which follows.

(24) a. John walked.
b. John walked to the station.

While sentence (24a) simply describes the activity of walking without specifying whether this activity has any effect, or if it does have an effect, what the effect is, sentence (24b) with a prepositional phrase describing the goal of motion conveys the

information that John arrived at the station and he terminated his activity of walking at the station. This meaning is illustrated in the following sentence. We can paraphrase sentence (24b) as follows:

(25) John went to the station, walking.

We should notice that the base verb *walk* of sentence (24b) is no longer the main verb in (25). Rather, it modifies John's action in (25). We can observe several other examples (the following examples in (26) are cited from Levin and Rapoport (1988: 277)):

(26) a. The bottle floated into the cave.
b. Cassandra limped up the stairs.
c. Sally waltzed into Philip's arms.
d. Jack and Jill hopped down the hill.

We can see in common that when the event that the secondary predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." (cf. lexical-subordination in Levin and Rapoport (1988)).

This observation is also supported by a typological view. Consider the following comparison of English and Japanese. (cf. Yoneyama 1986, Kageyama 1996)

(27) a. John walked.
b. John-wa aruita.
John-TOP walked

Sentence (27a), which simply describes the activity of walking, can be translated word for word into Japanese as in (27b). Compare the simple uses in (27) to the extended uses with a prepositional phrase describing the goal of motion as in (28).

(28) a. John walked *to the station.*
b. ?John-wa eki-e aruita.
John-TOP station-to walked
c. John-wa eki-e aruite-itta.
John-TOP station-to walking-went

As we have seen, sentence (28a) with a prepositional phrase can be paraphrased as "John went to the station, walking" and it implies that John arrived at the station. The English expression in (28a), as often pointed out, cannot be translated word for word into Japanese as shown in (28b). In order to use manner-of-motion verbs with goal expressions, manner-of-motion verbs such as *aruku* (walk) are to be compounded with the verb *iku* (go) as in (28c). To clarify the relationship between the complex predicate *aruite-iku*, the Japanese verb *aruku* modifies *iku* in (28c). From Japanese data we can also say that when the event that the secondary predicate represents is implied, the primary predicate is subordinated and it functions as a "modifier" rather than a "predicate."

3.2.2 Subordination of implicative verbs Similar subordination can be observed in sentences with implicative verbs. Compare implicative verb sentences as in (29) with non-implicative verb sentences as in (30).

(29) a. John condescended to leave.
b. John dared to leave.
c. John managed to leave.
d. John remembered to leave.
e. John ventured to leave.

In (29), though the main predicates are different from each other, John's actions are interpreted to be the same. That is, the main verb offers only supplemental information about the event that the infinitive verb represents. In that the event that the infinitive predicate represents is implied and the main predicate functions as a "modifier" rather than a "predicate," the same notion of *subordination* seems to be true for sentences with implicative verbs. We can say that when the event that the infinitive predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." Thus in the sentences (29) with implicative verbs the subject's actions are interpreted to be the same. Consider next the following sentences with non-implicative verbs:

(30) a. John agreed to leave.
b. John decided to leave.
c. John hoped to leave.
d. John intended to leave.
e. John planned to leave.

In (30) John's actions are interpreted to be different and they are determined by each non-implicative verb. This means that in sentences with non-implicative verbs, unlike those with implicative verbs, the main predicate does not function as a "modifier," rather it directly refers to some activity. We can say that when the event that the infinitive predicate represents is not implied, the main predicate is not subordinated.

Another piece of evidence that implicative verbs, unlike non-implicative verbs, are subordinated, comes from negative and interrogative sentences. As we have seen before, by definition, when an implicative predicate is negated, the implicative complement is also negated.

(31) a. John didn't manage to solve the problem.
b. John didn't solve the problem. (Karttunen 1971: 343)

And questioning a sentence with an implicative verb amounts to questioning the complement of that sentence.

(32) a. Did John manage to solve the problem?
b. Did John solve the problem? (Karttunen 1971: 345)

These are because the implicative verbs are subordinated and they offer only supplemental information about the event that the embedded verbs represent. We can say that when the event that the infinitive predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." Verbs in the non-implicative group are, in contrast, different. Their negations are non-committal in the negations of the complements.

(33) a. John didn't hope to solve the problem.
b. John didn't solve the problem. (Karttunen 1971: 343)

And in asking the sentence (34a), one is not simultaneously asking the sentence (34b):

(34) a. Did John hope to solve the problem?
b. Did John solve the problem? (Karttunen 1971: 345)

In sentences with non-implicative verbs, unlike those with implicative verbs, the main predicate does not function as a "modifier." When the event that the infinitive predicate represents is not implied, the main predicate is not subordinated.

3.2.3 Typological observations The difference between implicative verbs and non-implicative verbs can also be observed in Japanese counterparts. Ikegami (2000), based on typological observations, argues that English is a result-oriented language and Japanese is a process-oriented language. And he points out that English expressions with implicative verbs such as *bother/manage/remember to come* have been translated into Japanese expressions like *wazawaza/nantokashite/wasurenaide kuru.*

(35) a. John managed to solve the problem.
b. John-wa sono mondai-o nantokashite toi-ta.
John-TOP the problem-ACC barely solve-PAST

We should note that in the case of sentences with implicative verbs, Japanese translations involve paraphrases. We can observe that not the main verb *manage*, but the complement verb *solve* is predicated of the subject *John* and that the implicative verb *manage* corresponds to the Japanese adverbial *nantokashite.*

When the event that the infinitive predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." In contrast, the sentences with non-implicative verbs can be translated roughly word for word into Japanese as in (36).

(36) a. John hoped to solve the problem.
b. John wa sono mondai-o toku koto-o nozon-da.
John-TOP the problem-ACC solve to-ACC hope-PAST

We need not paraphrase the English expression because we need not hypothesize subordination in English. These data with *to*-infinitives, like the sentences with

to-directional phrases, suggest that when the event that the infinitive predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." And when the event that the infinitive predicate represents is not implied, as in sentences with non-implicative verbs, the main predicate is not subordinated.

3.3 Summary

In section 3.1, examining the scope modification we observed that two events are dependent in the sentences with implicative verbs. Next in section 3.2, to explore the mechanism of event dependence, we adopted the notion of subordination. We suggested that when the event that the infinitive predicate represents is implied, the main predicate is subordinated and it functions as a "modifier" rather than a "predicate." The present paper observed that implicative verbs offer only supplemental information about the action of the embedded verbs and that they are subordinated. From typological observations, we also observed that not the main verb, but the complement verb is predicated of the subject and that implicative verbs correspond to Japanese adverbials. We argued that the two events in the sentences with implicative predicates are interpreted to be dependent because the main predicates are subordinated. Our discussions are summarized as follows:

(37) a. observation: temporal and spatial dependence
b. description: subordination

Our argumentation is supported by the following examples. Note that an implicative verb sentence (38a) can be paraphrased as (38b).

(38) a. He presumed to criticize her performance.
b. He presumptuously criticized her performance.

We can observe that not the main verb *presume* in (38a), but the embedded verb *criticize* in (38a) is predicated of the subject *he* in (38b) and that the implicative verb *presume* in (38a) corresponds to the adverb *presumptuously* in (38b).

3.4 Supporting Evidence

In the previous sections, first we considered event dependency. Next, the present paper claimed that two events are interpreted to be dependent because the main predicate is subordinated and it functions as a "modifier" rather than a "predicate.". In this section we will consider the supporting evidence for subordination.

3.4.1 Nominalizations First consider the following (un)grammaticality of nominalizations. Pesetsky (1992) notes that non-implicative verb sentences have derived nominal counterparts, while implicative verb sentences do not.[5]

(39) NON-IMPLICATIVE
- a. her agreement to leave
- b. her arrangement to leave
- c. ?her assent to leave
- d. her attempt to leave
- e. her choice to leave
- f. her consent to leave
- g.% her contrivance to leave
- h. her decision to leave
- i. her demand to leave
- j. her offer to leave (Pesetsky 1992: 99)

(40) IMPLICATIVE
- a. *his condescension to leave
- b. *his bother to leave
- c. *nobody's care to leave
- d. *his dare to leave
- e. *his declination to leave
- f. *his disdain to leave
- g. *his help to leave
- h. *his management to leave
- i. *his neglect to leave
- j. *his omission to leave (ibid.)

These examples should be compared with the following ones. Derived nominals without *to*-infinitives are grammatical not only in non-implicative verb sentences but also in implicative verb sentences.

(41) NON-IMPLICATIVE
- a. the authority's agreement (BNC: KD5 3900)
- b. our arrangement (BNC: GVS 1084)
- c. the other party's assent (BNC: HH7 665)
- d. my first attempt (BNC: KBH 4028)
- e. Larry's choice (BNC: 9J 879)
- f. the customer's informed consent (BNC: J72 152)
- g. Sir Humphry's contrivance (BNC: B77 744)
- h. Nigel's decision (BNC: CH 7 4505)
- i. her final demand (BNC: CBC 9516)
- j. her petition (BNC: HAJ 537)

[5] See Pesetsky (1992: 99) for the other examples.

(42) IMPLICATIVE

a. his condescension (BNC: JXS 1125)
b. her disdain (BNC: CJP423)
c. your help (BNC: JYE 2255)
d. your management (BNC: BMK1104)
e. his neglect (BNC: CRM2717)
f. Lightbody's omission (BNC: HJ4 5219)
g. our presumption (BNC: ASB 637)
h. my remembrance (BNC: AN4 614)
i. her scorn (BNC: HP0882)
j. Tranmere's first competitive venture (BNC: K971789)

Our observations of derived nominals are summarized as follows:

(43)

	non-implicative	implicative
without *to*-infinitive	possible	possible
with *to*-infinitive	possible	impossible

Sentences with implicative verbs do not have derived nominal counterparts because implicative verbs are subordinated in the configurations with infinitive predicates. On the other hand, non-implicative verbs are not subordinated even in constructions with the infinitive predicates, thus their derived nominal counterparts are grammatical.

3.4.2 Pseudo-cleft sentences Further support for our approach comes from (un)grammaticality of pseudo-cleft sentences. Non-implicative verbs can occur in the pseudo-cleft configurations as in (44), whereas implicative verbs cannot occur as in (45):

(44) NON-IMPLICATIVE

a. … what the Policies and Resources Committee decided was to ask the committees, all committees to look at how this six hundred and seventy one thousand gap would be funded, ... (BNC: HYX 654)
b. What he expected was to see the Labour Government driven into an election either by its own dissensions or by the action of the Liberals, ... (BNC: EFN 1580)
c. What she needed was to sleep, and she tried to suppress the great mountain of self-pity that threatened to swamp her. (BNC: HGM 3265)
d. What I wanted was to go home and take a nice long rest. (BNC: FAP 3621)
e. What John agreed was to leave as soon as possible.
f. What John hoped was to leave as soon as possible.

(45) IMPLICATIVE[6]

a. ?? What we didn't bother *(about) was to leave on time.
b. * What he condescended was to leave on time.
c. ? What Mary dared was to contradict Bill.
d. ? What he declined was to write the report.
e. ? What he disdained was to leave on time.
f. * What he helped was to leave. (Pesetsky 1992: 183)

Sentences with implicative verbs (45) are ungrammatical because implicative predicates are subordinated and they cannot function as main verbs in themselves.

3.5 Event Composition

In the previous sections, we have stated that two events are dependent in sentences with implicative predicates. We should note, however, that we have not presented the evidence that there are two events. This means that we have not excluded the possibility that sentences with implicative verbs originally denote a single event. Thus the aim of this section is to show that event dependence in sentences with implicative predicates is due to event composition. The evidence that events in sentences with implicative verbs consist of originally two independent events and that the event dependence is owing to event composition comes from ambiguous examples: according to Karttunen (1971), there are verbs that must be sometimes understood in an implicative, sometimes in a non-implicative sense. Let us examine the following sentences:

(46) a. Twice before, John has chosen to ignore my request.
b. John has chosen to become the best student next semester.
(Karttunen 1971: 355)

(47) a. John refused to believe that he was sick.
b. John refused to come to Mary's party tomorrow. (ibid.)

Karttunen suggests that the sentences (46a) and (47a) are interpreted to be implicative, while the sentences (46b) and (47b) are interpreted to be non-implicative. For instance, the phrase *has chosen to ignore* in (46a) means something like 'has deliberately ignored,' but the phrase *has chosen to become* in (46b), because of the future time reference, cannot be understood as 'has deliberately become.'

Furthermore, we can observe the ambiguity of the verb *contrive* in a historical view. According to the *OED*, the verb *contrive* was used not only as an implicative verb but also as a non-implicative verb. Consider the following description and an example sentence:

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[6] See Pesetsky (1992: 183) for the other examples.

(48) a. To invent, devise, excogitate with ingenuity and cleverness (any plan or purpose). (*OED* s.v. *contrive* v. 1a)
b. † Const. with *inf. Obs.*
All the foreign papal powers contrived to dethrone or destroy her.
(*OED* s.v. *contrive* v. 1c)

Compare the above sentence (48) with the non-implicative *contrive* to the following sentence (49) with implicative *contrive*:

(49) a. To succeed in bringing to pass; to 'manage', to effect (a purpose)
(*OED* s.v. *contrive* v. 6a)
b. ...after many failures Starbuck *contrived* to ignite the lamp in the lantern... (HTI: Melville, *Moby Dick*, italics mine)

The phrase *after many failures* suggests that the character *Starbuck* has already tried to ignite the lamp in the lantern many times. Thus when we interpret the phrase *contrived to ignite the lamp in the lantern*, we are obliged to regard it as indicating the accomplishment of the embedded action *igniting the lamp in the lantern*. Compare also the following sentence:

(50) *John contrived to cheat in the examination, but in vain.

The ungrammaticality of the sentence (50) suggest that the first half of the sentence *John contrived to cheat in the examination* implies that John cheated in the examination and it is contradictory to the second half of the sentence.

These data indicate that the contrast between implicative and non-implicative is not an arbitrary division, rather it is determined by the environments where the relevant verbs occur. According to the argument in the previous sections, it follows that a verb is interpreted to be non-implicative when it is not subordinated and a verb is interpreted to be implicative when it is subordinated. To treat the distinction between implicatives and non-implicatives uniformly, we may say that a default sentence denotes two events and when a verb is required to be subordinated, the sentence shows event dependence as a result of event composition.

Our discussions of sentences with implicative verbs above are summarized as follows:

(51) a. observation: temporal and spatial dependence
b. description: subordination
c. explanation: event composition

4 SYNTACTIC STRUCTURE: RESTRUCTURING

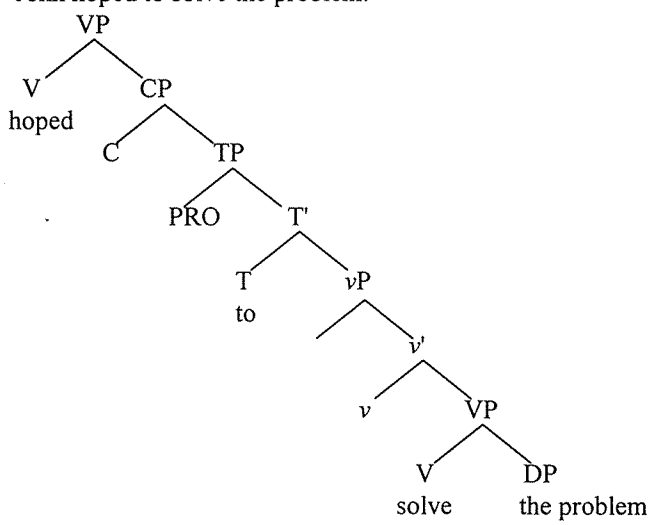
In the previous sections we have argued that sentences with implicative verbs, in contrast to those with non-implicative verbs, show event dependence which is due to event composition. In this section, assuming that event dependency correlates highly

with the syntactic structure, we will explore the syntactic structure of sentences with implicative verbs and non-implicative verbs. After the present paper outlines restructuring approaches, in section 4.2 it will provide arguments for the lack of CP properties in implicative infinitives. And it also observes that implicative infinitives lack TP properties and PRO (i.e. infinitival subject). Based on this argumentation, the present paper claims that implicative infinitives are restructuring configurations and that implicative verbs select VP complements.

In this paper, we assume the following structures. The sentence with a non-implicative verb (52a) is illustrated as in (52b), which is a non-restructuring configuration.[7] The sentence with an implicative predicate (53a) is drawn as (53b), which is a restructuring construction.

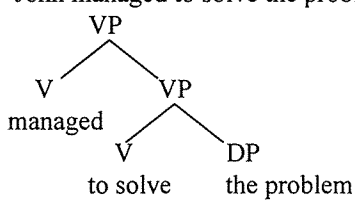
(52) a. John hoped to solve the problem.

b.



(53) a. John managed to solve the problem.

b.



[7] With a case-theoretic account of PRO, Bošković (1996) claims that complementizerless control infinitives are not CPs, but TPs. Though the present paper argues that non-implicative infinitives are non-restructuring configurations, to discuss whether the non-restructuring infinitives are CPs or TPs is beyond the scope of the paper. We will state that non-implicative infinitives are CPs, which is a non-restructuring configuration, but we do not exclude the possibility that they are TPs.

4.1 Restructuring

Restructuring is a device to capture a phenomenon of clause union under certain environments; the core feature of this phenomenon is that process and dependencies that are normally restricted to a single clause take place across clause boundaries. According to Rizzi (1978), the typical restructuring effects in Italian are *clitic climbing, object preposing* and *auxiliary switch.* In German, Wurmbrand (2001) observes different restructuring effects and states that they are *long distance scrambling, long passive* and *verb raising.* As opposed to Italian and German, restructuring effects in French and English have not been observed. We should note, however, that more recently in Modern French which was originally taken to lack the restructuring phenomenon, different restructuring effects have been claimed to exist in the language. Cinque (2002) argues that *en and y climbing* and *long movement in 'easy-to-please' construction* are restructuring effects. Furthermore, Rosen (1990) and Roberts (1997) extend restructuring analysis to English *to*-contraction. These analyses seem to suggest that universally we tend to reanalyze a matrix verb and an infinitive verb into a single complex verb. Rosen (1990) states that ALL languages have restructuring, but that for syntactic reasons, we simply cannot see it in some languages.

In the following sections, we will show that English implicative infinitives are restructuring infinitives, lacking CP, TP and PRO properties. And the present paper proposes that implicative verbs select VP infinitives.

4.2 Observations

4.2.1 Lack of CP properties In this section we will see that implicative infinitives lack CP properties. First, in section 4.2.1.1 we observe that implicative infinitives lack a C-position from the absence of complementizer *for* in implicative infinitives. Next in section 4.2.1.2 we will observe that some implicative (control) predicates, like raising predicates, have passive counterparts and state that the implicative infinitives lack a clause boundary which intervenes in preposing the embedded object.

4.2.1.1 Complementizer for Many non-implicative verbs have a construction in which the noun phrase is preceded by *for*, which marks the noun phrase as the subject of an infinitive clause as in (54). On the other hand, implicative verbs do not have a construction in which the noun phrase is preceded by *for* as in (55).

(54) NON-IMPLICATIVE

a. they've agreed *for me* to take fifteen pound a week instead of ten (BNC: KDJ 1401)

b. He tipped his seat back and zipped his jacket right up and he asked *for the music* to go on again (BNC: AR2 332)

c. I hoped *for a chance for Leeds* to display their abilities on the ground. (BNC: J1E 784)
d. Some of the people looked as if they had been torn apart by animals with more in the way of teeth and claws than the Good Lord intended *for them* to have. (BNC: CH0 137)
e. I just wanted *for you* to go(italics mine) (BNC: KD8 2170)

(55) IMPLICATIVE
a. *John condescended *for Mary* to go with him.
b. *John dared *for Mary* to do that.
c. *John managed *for the music* to go on again.
d. *John remembered *for Mary* to lock the door.
e. *John ventured *for Mary* to express the opposite opinion.

These data suggest that sentences with non-implicative verbs have a potential C-position as in (54), in which the complementizer *for* can be inserted. In contrast, those with implicative verbs do not have the C-position as in (55). These facts can be taken to support our restructuring analysis. Assuming that implicative infinitives are VP-predicates, it follows that these constructions cannot involve a complementizer *for* which would require the projection of a CP.

4.2.1.2 Long object preposing Another piece of evidence that implicative infinitives lack a C-position comes from passive sentences with control predicates. We should note that usually they do not have passive counterparts as in (56).

(56) a. John hoped to solve the problem.
b. *The problem hoped to be solved.

Since the principles-and-parameters account, it has often been pointed out that control verbs, in contrast to raising verbs, select CP complements with infinitival subject PRO. (cf. Rosenbaum 1967)

(57) John hoped $[_{CP}[_{TP}$ PRO to solve the problem]].

The presence of CP straightforwardly accounts for the ungrammaticality of (56b), in which the embedded object moves the matrix subject position.[8] Compare the data

[8] We should note that even though sentences with control predicates have the apparent passive counterparts, they have different meanings. Consider the following sentences:

(i) a. The doctor decided to examine John.
b. John decided to be examined by the doctor.

The difference in meaning of sentence (i) suggests that they have different configurations as shown in (ii):

(ii) a. The doctor decided [PRO to examine John]. (PRO=The doctor)
b. John decided [the doctor to examine PRO]. (PRO=John)

involving CP above with the following raising verb sentences, lacking CP.

(58) a. Sam seemed to realize the importance of the problem.
b. The importance of the problem seemed to be realized by Sam.
(Quirk et al. 1985: 146)

Raising complements are TP complements and the sentence (58b) is acceptable because it does not have a CP boundary.

Interestingly, however, not all passivization under control predicates are allowed. For instance, Quirk et al. (1985) presents the following sentences.

(59) The importance of the problem {?managed/?failed/*got} to be realized by Sam. (ibid.)

According to Quirk et al., agentive verbs like *manage* and *fail* are marginally acceptable and the verb *get* is unacceptable. Implicative verbs impose selectional restrictions on their subjects, thus passivization is often prohibited. However, when the conditions are satisfied, sentences with implicative verbs have passive counterparts. Consider other sentences as follows:

(60) a. John managed to solve the problem.
b. The problem managed to be solved by John.
(61) a. He managed to reserve that room for the party.
b. The room managed to be reserved for the party by John.
(62) To escape the raids in London, Charles's wife Peggy had gone to stay with Aunt Alicia in the country, and that was how Sara managed to be born at Moorlake House. (BNC: J54 301)

In contrast, sentences with non-implicative complements do not have passive counterparts. Compare the following sentences (63) with the sentences (60).

(63) a. John hoped to solve the problem.
b. *The problem hoped to be solved by John.

Rizzi (1978) points out that in Italian embedded objects move to the matrix subject position in certain environments as in (64a). He explains this by restructuring.

(64) a. Questi libri si volevano proprio leggere.
these books SI wanted really to read
We really wanted to read these books.
b. *Questi libri si odiavano proprio leggere.
these books SI hated really to read
We really hated to read these books.

We can say that passivization under control predicates is ungrammatical and that when control predicates have apparent passive counterparts, active sentences and passive counterparts have different meanings.

Sentences with implicative verbs have passive counterparts because the implicative infinitive lacks a clause boundary which intervenes in preposing the embedded object.

4.2.2 Lack of TP properties In this section we will explore the tense properties of implicative infinitives and show that they lack an independent internal tense specification. This property is attributed to the lack of tense features in the infinitive, which means the lack of functional projection with tense features. Consider the following (im)possibility of embedded past modifiers:

(65) a. *A week ago John managed to finish his assignment yesterday.
b. ?A week ago John hoped to finish his assignment yesterday.

If the main predicate is an implicative verb, the main sentence and the complement may not contain conflicting temporal expressions. The ungrammaticality of (65a) indicates that the implicative infinitive lacks its own tense specification. It seems to be taken to reflect the lack of T-projection.

4.2.3 Lack of PRO As has been noticed by Williams (1980), collective predicates such as *meet, gather, apply together* (i.e. predicates that require a plural subject) can occur in certain infinitival constructions that involve a singular controller in the matrix predicate. In this section, following the detailed study by Landau (2001), we observe PRO interpretation in implicative verb sentences and in non-implicative verb sentences. And the present paper will claim that implicative infinitives lack PRO.

First examine the following sentences:

(66) a. *John met at 6.
b. *The chair gathered during the strike.
c. *Mary applied together for the grant. (Landau 2001: 27)

Collective predicates such *as meet at 6, gather during the strike, apply together for the grant*, which require plural subjects, are incompatible with a singular subject as illustrated in (66). Similarly, they are ruled out in the following environments with a singular controller:

(67) a. *John managed [PRO to meet at 6].
b. *The chair dared to [PRO to gather during the strike].
c. *Mary forgot [PRO to apply together for the grant].
(ibid.)

Landau states that interestingly they are allowed in certain environments as in (68).

(68) a. John wanted [PRO to meet at 6].
b. The chair was afraid [PRO to gather during the strike].
c. Mary wondered whether [PRO to apply together for the grant].
(ibid.)

This (un)grammaticality is attributed to their PRO interpretation. He calls the first type of control as in (67) *Exhaustive Control (EC)*; it refers to constructions where the reference of PRO must be exhausted by the reference of the controller. And he calls the second type as in (68) *Partial Control (PC)*; it refers to constructions where the reference of PRO includes but need not be identical with the reference of the controller.

Landau breaks the domain of infinitival complements into seven subclasses, according to the semantic properties of the control verb: Aspectual (*begin, continue...*), modal (*need, able...*), implicative (*manage, dare...*), desiderative (*want, prefer...*), factive (*hate, regret...*), propositional (*claim, believe...*), interrogative (*wonder, ask...*). And he states that implicative verbs are involved in EC verbs.

(69) a. EC verbs are *implicative, aspectual* or *modal.*
b. PC verbs are *factive, propositional, desiderative* or *interrogative.*
(Landau 2001: 37)

The data above indicating that implicative verbs are EC verbs seem to suggest that implicative infinitives lack a syntactic subject and thus their co-reference is guaranteed. These examples can be taken to support our analysis of restructuring. Assuming that implicative infinitives are VP-predicates, it follows that these constructions cannot involve a PRO which would require the projection of a *v*P.

4.3 A Proposal

4.3.1 Wurmbrand (2001) First let us examine Wurmbrand's discussion of restructuring. She claims that a restructuring infinitive does not contain PRO in German, presenting the evidence from binding properties of infinitival constructions. She starts with an observation about dative arguments in German that will be of importance for the discussion to follow. She argues that anaphors cannot be bound by dative arguments in German as in (70):

(70) weil der [sic] Hans_{h} der [sic] Maria_{m} $\text{sich}_{h/*m}$ auf dem Photo zeigte.
since the John-NOM Mary-DAT SELF in the picture showed
'since John showed Mary himself/*herself in the picture'
(Wurmbrand 2001: 233)

In (70), the dative antecedent *der Maria* cannot bind the anaphor *sich* and only the nominative antecedent *der Hans* binds the anaphor *sich.* Next let us consider the following example with the non-restructuring infinitive. She notes that when the controller is interpreted to be the dative antecedent, an anaphor is licensed in a non-restructuring infinitive:

(71) Es ist ihm_h gelungen PRO_h $sich_h$ einen Turm zu bauen
it is him-DAT managed PRO_h $SELF_h$ [a tower]-ACC to build
'He (has) managed to build himself a tower' (Wurmbrand 2001: 234)

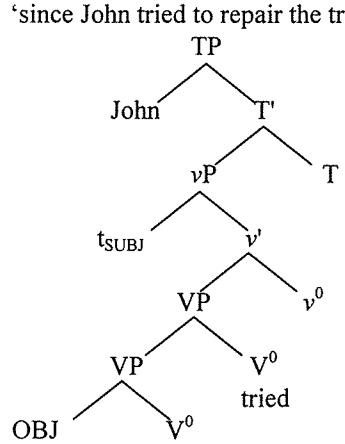
She argues that an anaphor can occur in this context because non-restructuring infinitives project an embedded syntactic subject (i.e. PRO) which binds an anaphor. In contrast, an anaphor becomes impossible in a restructuring construction as follows:

(72) *weil der Fisch dem [sic] $Hans_h$ $sich_h$ mit Streifen vorzustellen
since the fish-NOM the John-DAT SELF with stripes imagine
gelungen ist.
managed is
'John managed to imagine what the fish would look like with stripes'
(Wurmbrand 2001: 235)

The ungrammaticality suggests that restructuring infinitives as in (72) lack an embedded syntactic subject which can function as the antecedent for the embedded anaphor. She states that the distribution of anaphors in German shows the following contrast: when the matrix predicate does not include an appropriate binder for the anaphor, non-restructuring infinitives allow embedded anaphors whereas restructuring infinitives prohibit embedded anaphors. Wurmbrand, based on these observations, proposes that restructuring infinitives be represented syntactically by bare "VP" predicates[9] as illustrated in (73).

(73) a. weil Hans den Traktor zu reparieren versuchte
since John the tractor-ACC to repair tried
'since John tried to repair the tractor'

b.



(Wurmbrand 2001: 17)

[9] The obvious question to ask here is how the presence of the infinitival marker *zu* 'to' can be reconciled with her claim that restructuring infinitives do not involve a T-projection. Wurmbrand argues that a projection hosting the infinitival marker in restructuring infinitives bears no semantic content and it does not seem to fulfill any syntactic function. She states that the projection hosting the infinitival marker is invisible for the restructuring configuration and it is part of the lexical VP.

Wurmbrand further argues that in German some infinitival constructions allow partial control as in (74), whereas others block this form of interpretation as in (75) ("k" refers to referents that are provided by the context).

(74) Der Direktor$_i$ hat ihm$_j$ vorgeschlagen [SUBJ sich im Schloß zu
The principal$_i$ has him$_j$ proposed [SUBJ SELF in-the castle to
versammeln]
gather]
'The principal proposed to him together in the castle'
$\Rightarrow$SUBJ$_{i+k}$ (e.g. the teachers), SUBJ$_{j+k}$(e.g. the students), SUBJ$_{i+j+k}$ (e.g. the whole school) (Wurmbrand 2001: 244)

(75) *Der Bürgermeister wagte/versuchte/began/vergass [sich im Schloß
The mayor dared/tried/began/forgot [SELF in the castle
zu versammeln]
to gather]
'The mayor dared/tried/began/forgot to gather in the castle' (ibid.)

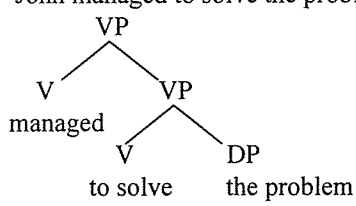
She states that there is a striking correlation between restructuring and exhaustive control (obligatory control in her terminology). That is, all restructuring predicates are obligatory control predicates and prohibit any form of non-obligatory control.

The next question to ask here is what syntactic structure English implicative verb sentences are given. In the following section, this paper will also present syntactic configurations without infinitival subjects for sentences with implicative verbs.

4.3.2 A Proposal In section 4.2.1, first we showed that implicative infinitives cannot involve material associated with a C-projection. In the next section 4.2.2, we also claimed that they lack TP properties. In section 4.2.3, following Landau's discussion, we investigated their PRO interpretation and we stated that implicative infinitives lack PRO. Based on these observations, we may assume roughly the same restructuring structure as the one in (76) by Wurmbrand. To capture properties lacking CP, TP and PRO in sentences with implicative verbs, this paper proposes the following configuration:

(76) a. John managed to solve the problem.

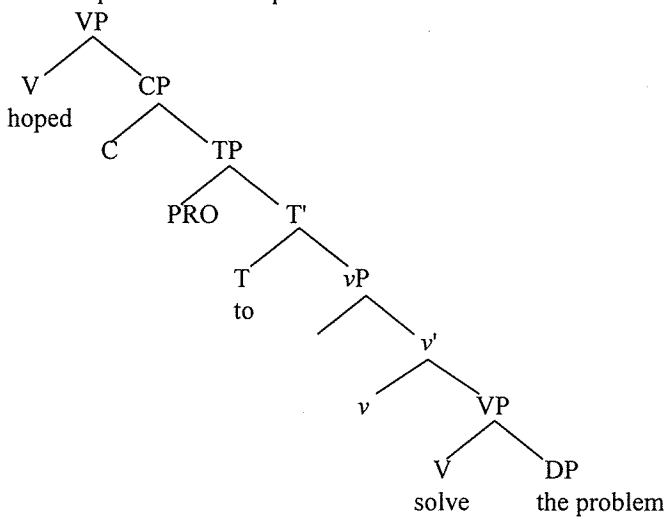
b.



On the other hand, sentences with non-implicative verbs have a non-restructuring configuration and they are represented as follows:

(77) a. John hoped to solve the problem.

b.



Intuitively[10], non-implicative constructions which select CP complements express relations between individuals and propositions. That is, in the sentence *John hoped to solve the problem* the basic relationship is John and a proposition, namely that John would solve the problem, which John hoped to be true. On the other hand, the relationship expressed by implicative constructions which select VP complements is one between an individual and an action. In the sentence *John managed to solve the problem*, the phrase *managed to* does not relate John to some proposition. Rather it describes a relation between John and the act of solving a problem.

This is supported by the following examples:

(78) a. However, to reflect a reduced level of activity *it* was agreed *to* reduce the PR budget by 20 per cent. (BNC: HU5 620)

b. *It* was decided *to* postpone the survey until the autumn term. (BNC: HNW1861)

c. *It* was hoped *to* accomplish all this within a week. (BNC: BNN 1188)

d. During the coming year *it* was intended *to* undertake research designed, if possible, to show what would be the effect of any such change. (BNC: A5A 59)

e. *It* was planned *to* send an equal amount every 10 days. (italics mine) (BNC: HLK 493)

(79) a. **It* was condescended *to* show me the method of working it.

b. **It* was dared *to* postpone the survey until the autumn term.

c. **It* was managed *to* accomplish all this within a week.

---

[10] Rochette (1988) argues that the size of an infinitive corresponds to its semantic category: CP-infinitives represent propositions, IP-infinitives represent events, subjectless VP-infinitives represent actions.

d. **It* was remembered *to* lock the door.
e. **It* was ventured *to* send an equal amount every 10 days.

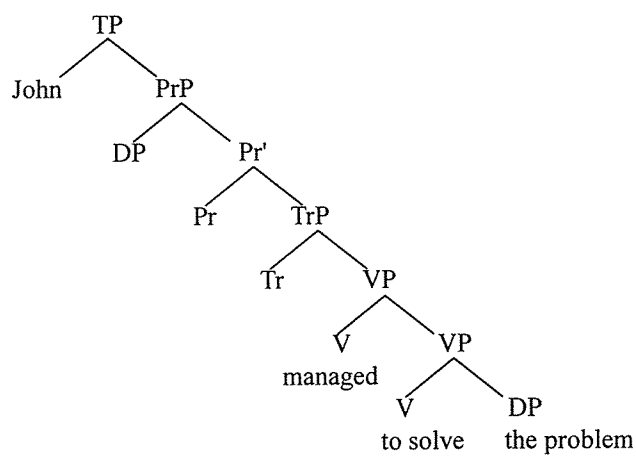
These data suggest that while *to*-infinitives in the sentences with non-implicative verbs are the arguments of the verbs, *to*-infinitives in those with implicative verbs are not the arguments of the verbs.

4.3.3 Case assignment in restructuring constructions Since Larson's (1988) work, it is generally agreed that the lexical VP is not a single projection but involves a more elaborate structure. And the *v*-projection is supposed to be responsible for object agreement and accusative case assignment. The question then arises about how the embedded object *the problem* is assigned the case in restructuring constructions. The present paper assumes that the complex predicate *managed to solve* assigns the accusative case.

This assumption seems to be compatible with Bower's (2002) analysis. He claims that the predication relation is represented by means of a functional category *Pr*, a generalization of the "light verb" *v* and that the relation of transitivity is represented by a functional category *Tr*. According to him, Tr is a category that may optionally be selected by Pr, hence is located between Pr and V.

Restructuring infinitives lack an embedded structural case position/assigner, thus the embedded object *the problem* cannot be assigned a case in the infinitive configuration. Here we should note, however, that the nature of the property of the embedded object *the problem* reflects the temporal progress of the event which the predicate *manage to solve* represents. That is, when all of *the problem* is solved, the event *manage to solve* ends. We can say that the object *the problem* of the embedded predicate *solve* also functions as the object of the complex predicate *manage to solve*. The predicate *manage to solve* has the object *the problem* and it projects Tr. Thus we can assume that Tr assigns the embedded object *the problem* the accusative case.

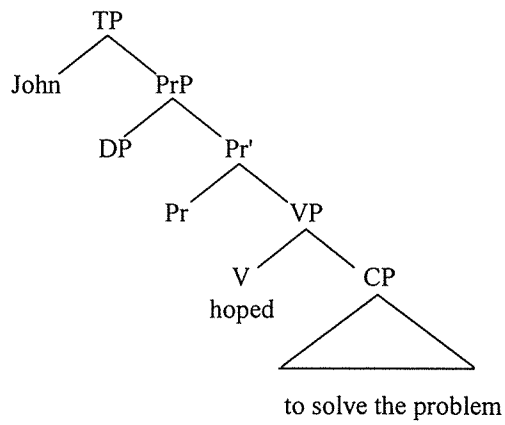
(80)



On the other hand, non-restructuring infinitives involve an embedded structural case position/assigner. Thus the object *the problem* is assigned the accusative case in the

infinitive configuration. The object *the problem* in non-restructuring configuration does not reflect the temporal progress of the event which the predicate *hope to solve* represents. This means the object *the problem* of the embedded predicate *solve* cannot be regarded as the object of the complex predicate *hope to solve*. The predicate *hope to solve* does not have an object and it does not project Tr. The embedded object *the problem* is assigned the accusative case not by the predicate *hope to solve*, but by the embedded predicate *solve*.

(81)



4.4 Summary

The present paper has proposed that implicative infinitives are restructuring configurations and that implicative verbs select VP complements. The embedded object is assigned the case by the complex predicate. On the other hand, non-implicative infinitives are non-restructuring configurations and that non-implicative verbs select CP complements. The embedded object is assigned the case by the embedded verb.

4.5 Supporting Evidence

In the previous sections, we have claimed that implicative infinitives are restructuring constructions and that they are smaller than non-implicative infinitives. In this section this paper will consider the supporting evidence. In section 4.5.1 we discuss the scope of negation in sentences with implicative predicates and in those with non-implicative predicates. The present paper observes that in sentences with implicative predicates, unlike those with non-implicative predicates, the matrix negative licenses the embedded NPI. We state that this is because sentences with implicative verbs are smaller configurations and they lack a clause boundary which intervenes between the

negative and the NPI. In section 4.5.2, adopting Wurmbrand's markedness constraints, the present paper argues that implicative verbs do not occur in the pseudo-cleft sentences because implicative infinitives are smaller configurations and they tend to remain in the base positions.

4.5.1 Scope of negation First let me outline Chapin's (1973) discussion about the clause boundary of the sentences with quasi-modals. He observes that NPIs (negatively favoured elements in his terminology) such as *pay a red cent, lift a finger* and *budge* occur in the following configurations:

(82) Joe isn't {able/about/going/supposed/ ϕ } to {pay a red cent/lift a finger/budge}. (Chapin 1973: 3)
(83) Joe didn't {have/need} to {pay a red cent/lift a finger/ budge}. (ibid.)

According to Chapin, (82) and (83) are acceptable because no clause boundaries intervene between the negative and the NPIs. He calls the class of apparent predicates appearing in (82) and (83) *quasi-modals*, which should be regarded to be different from true predicates.

The scope of quasi-modals may be said to be the same as the scope of sentences with implicative verbs. Compare the negative sentence with an implicative verb (84) and a non-implicative verb (85):

(84) John didn't manage to budge an inch.
(85) *John didn't hope to budge an inch.

We may say that, following Chapin's argumentation, the NPI *budge an inch* can occur in (84), unlike in (85), because sentences with implicative predicates are smaller configurations and they don't involve a clause boundary which intervenes between the matrix negative and the embedded NPI.

4.5.2 Markedness constraints

4.5.2.1 Wurmbrand (2001): extraposition Wurmbrand (2001) claims that extraposition can be seen as another criterion that targets the distinction between full clauses (i.e. CPs) and smaller complements. First consider extraposition of non-restructuring infinitives. She points out that extraposition of non-restructuring infinitives, which is a full clause, is generally accepted as in (86):

(86) weil der [sic] Hans zutiefst bedauerte der [sic] Maria nicht
since the John-NOM deeply regretted the Mary-DAT not
geholfen zu haben
helped to have
'since John regretted it [sic] deeply that he didn't help Mary'
(Wurmbrand 2001: 293)

As for reduced non-restructuring infinitives, she argues that some researchers clearly accept extraposed reduced non-restructuring infinitives such as (87) and that some authors consider these examples as ungrammatical.

(87) % dass dem [sic] Hans Maria beschlossen hat zu helfen
that the John-DAT Mary decided has to help
'that Mary decided to help John' (Wurmbrand 2001: 293)

Turning to restructuring infinitives, lexical restructuring infinitives show a clear decrease in acceptability when the infinitives are extraposed as in (88a) and functional restructuring infinitives cannot undergo extraposition as in (88b).

(88) a. ??dass der Wagen versucht wurde zu reparieren
that the car-NOM tried was to repair
'that they tried to repair the car' (ibid.)
b. *weil der [sic] Hans muß der [sic] Maria helfen
since the John-NOM must the Mary-DAT help
'since John must help Mary' (Wurmbrand 2001: 292)

These data, as noted by Wurmbrand, suggest that the 'bigger' a complement (assuming her system of graded (non-)restructuring), the more likely it is to extrapose.

According to Wurmbrand, the question of extraposition is a question of prosodic or syntactic markedness rather than an issue of 'hard' syntactic constraints. She states that the position of a non-nominal complement is determined by the following markedness constraints:

(89) a. The unmarked position of a full clause (i.e. a CP) is post-verbal, which in prosodic terms would correspond to a constraint against embedding a category of the highest type on the prosodic hierarchy inside another prosodic phrase.
b. The unmarked position of a non-clausal category is its base position, which prosodically could be seen as reluctance against re-ordering smaller prosodic units. (Wurmbrand 2001: 294)

She argues that thus, in the unmarked case, non-restructuring infinitives undergo extraposition, whereas restructuring and reduced non-restructuring infinitives remain in situ.

4.5.2.2 Pseudo-cleft sentences The same may be said of the (un)grammaticality of pseudo-cleft sentences. As we have seen before, Non-implicative verbs can occur in the pseudo-cleft configurations in (90), whereas implicative verbs cannot occur in (91). Some data are repeated here:

(90) NON-IMPLICATIVE

a. What he expected was to see the Labour Government driven into an election either by its own dissensions or by the action of the Liberals, and its consequent replacement by a Conservative administration, obviously with himself at the head. (BNC: EFN 1580)

b. What she needed was to sleep, and she tried to suppress the great mountain of self-pity that threatened to swamp her. (BNC: HGM 3265)

c. What I wanted was to go home and take a nice long rest. (BNC: FAP 3621)

(91) IMPLICATIVE

a. ??What we didn't bother *(about) was to leave on time.

b. *What he condescended was to leave on time.

c. ?What Mary dared was to contradict Bill. (Pesetsky 1992: 183)

Adopting Wurmbrand's markedness constraints, these data seem to be compatible with our analysis. Pseudo-cleft sentences with implicative predicates as in (91) are worse than those with non-implicative predicates as in (90) because implicative complements are smaller than non-implicative complements. The unmarked position of a non-clausal category such as an implicative complement is its base position — so suggesting the ungrammaticality of (91).

5 CONCLUSION

The present paper has argued that English implicative complements, unlike non-implicative complements, show restructuring effects both in terms of event dependency and syntactic structure. We have claimed that sentences with implicative verbs show event dependence, which is due to event composition and that an implicative verb selects a VP complement.

First we examined their event dependency and we observed that two events in sentences with implicative verbs are dependent. And to explore the mechanism of event dependence, this paper adopted the descriptive generalization: when the event that the secondary predicate represents is implied, the primary predicate is subordinated and it functions as "modifiers" rather than "predicates." We, observing that implicative verbs function as a "modifier" rather than a "predicate," stated that this generalization is also true of sentences with implicative verbs. The present paper therefore maintained that the two events in sentences with implicative predicates are interpreted to be dependent because the main predicates are subordinated. And we claimed that event dependence is due to event composition.

Next we explored the syntactic structure of sentences with implicative verbs. The present paper provided arguments for the lack of CP properties in implicative infinitives. And it has also showed that implicative infinitives also lack TP properties and PRO. Based on this argumentation, we claimed that while a non-implicative verb selects a CP complement which is a non-restructuring configuration, an implicative

infinitive is a restructuring configuration and an implicative verb selects a VP complement.

Restructuring has so far been studied in a number of Romance languages and German languages, including Italian, Spanish, Dutch and German. This paper has argued that restructuring is also observed in English constructions with implicative verbs. These facts may suggest that universally we tend to reanalyze a matrix verb and an infinitive verb into a single complex verb. Furthermore the present paper suggested that event dependency and the syntactic restructuring are correlated.

If the working hypothesis is on the right track that eventuality is connected with syntactic structures, as is often pointed out in verbal semantics, the question to ask here is how the event dependency and the syntactic structures which we have discussed should be associated together. The present paper stated that restructuring verbs describe the relation between individuals and actions rather than a relation between individuals and propositions. This may suggest that the predication relation is a key to explore the mechanism. However, this question remains for further investigation.

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CORPORA

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HTI Modern English (http://www.hti.umich.edu/p/pd-modeng/) [HTI]

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